

Learn Access 2019



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Section 1 – Introduction

Video: Introduction to Access 2019

Deb: Hello everyone and welcome to this course on Microsoft Access 2019. My name's Deb and I'm your course instructor. I'm a MOS Certified, TAP accredited IT trainer and I've been using Access for a very long time, along with all of the other Microsoft applications. And Access really is a product that's changed a lot in the last couple of versions and what I plan to do in this course is just really to show you how Access can help you manage large amounts of data.

Now you might be thinking, "Who is this course exactly for?" and when I was designing this course I kind of broke it down into three separate groups. So the first group of people this course would be ideal for would be for people who have either never used Access or any kind of database software and people who have certainly never designed or built a database. Now on that note we are going to start completely from scratch, so I don't require you to have any existing knowledge in Access in order for you to be able to sit through this course. I do however require you to have at least a little bit of knowledge of the use of Windows software and applications. So for example, if you've used something like Excel or PowerPoint or Word before that's fine. So I'm going to assume that you can at least find your way around a Windows application.

The second group of people this course is designed for are people who have maybe used an older version of Access. This current version, Access 2019, could be very different from the version that you're used to using, particularly if it was Access 2010 or before that. You may not even have used Access with the ribbon interface that was introduced in 2010.

And the third group of people that this course is designed for are users of more recent versions. So whilst you might be familiar with some of the later versions of Access, so maybe Access 2013 or 2016, you may not be used to some of the newer features in 2019, such as the creation and use of web apps.

Now I am going to go through this whole course in sequence, step by step, and I would advise you to do the exactly the same. Some of the earlier sections are going to contain more introductory material where we'll go over a lot of the features and the views in Access and then we'll work our way up through some of the more intermediate modules.

Now the version I'm using is the desktop version of Access 2019 and there are some things that are not going to be covering in this course, such as VBA programming. Now we will be looking a little bit at macros but we won't be going into VBA in any great depth. And the only thing that you really need in order to be able to work your way through this course is a live internet connection for some of the things, such as online Help and downloading templates.

So that it is, we are ready to go. In the next section I'm going to talk to you about acquiring Access 2019 and getting it working, so please join me for that.

Video: Acquiring Access 2019

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to take a look at how you can acquire Access. In other words how you can download it onto your PC. And there are a couple of different ways and as with everything in Microsoft sometimes it does tend to look like it's a pretty confusing process due to the fact that Microsoft do tend to change up their website fairly frequently. So I just want to talk to you about the couple of options that you have in order to get the copy of Access on your PC.

Now the first option is what you can see here and that is to download a version of Office 365. Now in case you're unsure exactly what Office 365 is it's basically a subscription service. So for a certain amount of money, and you can either pay monthly or yearly, you can essentially rent your Microsoft applications from Microsoft. That's how I like to think about it. It's very similar to if you've ever used a subscription service like Netflix or Spotify you pay Microsoft and you get access to download all of the Microsoft applications and use them.

So what you can see here are a couple of the options that you have for purchasing Office 365 on the Microsoft website. And you can see just underneath it shows you which applications are included, so you do want to make sure that if you're purchasing this predominately to get access to Access that that application is actually included. And you can see it here, it's included with Office 365 Home and Office 365 Personal. And you'll see it says PC only next to each of these icons. What that basically means is that there's no mobile version of Access included with these two subscriptions. So unlike the other applications, like Word, Excel and PowerPoint where you can go into your Office 365 portal and essentially use an online version of the applications you can't do that with Access but you can certainly download it to your PC and use it in that way.

Now the good thing about Office 365 or purchasing an Office 365 subscription is that it means that your applications are always going to be up to date. They automatically receive updates when they're available from Microsoft. So you never have to worry about purchasing the next version because the version you have is always and consistently kept up to date. So that's why sometimes I feel that this is a good investment.

Now the second option that you have when it comes to downloading Access is that you could choose to do a one-time purchase of Office. And you can see here I've got up on the screen a few of the different plans that you have. The cost is a lot higher and this is a one-time purchase which means you're not paying a monthly subscription. Once you pay your money you download the software and it's yours to keep. However, just be aware that unlike Office 365 it doesn't receive constant updates. So it might be that you download this once, you use it for a couple of years and then you need to repurchase it. So it's really up to you whether you choose to go the subscription route or if you go the one-time purchase route. Just make sure if you are doing a one-time purchase and you specifically want it to contain Access, make sure that you go through and the version that you're buying does actually contain Access.

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There are of course various other websites which offer a download of Access 2019, so it is worth doing a little bit of research before you plump for one or the other options. I would say if you're just Googling trying to find a different resource for downloading Access then please be really careful as to which download source you use. Just make sure that it is a legitimate source before you pay any money and download the application.

Once you've chosen which one of those options you want to go ahead with then you can just click Buy Now and you'll be sent a download link for which you can download the software. And then you are pretty much good to go.

So that's it, just some quick tips on how you can acquire Access 2019. In the next module we're going to talk a little bit about the structure of this course so I will see you over there.

Video: Structure of the Course

Deb: Hello again and welcome back to our course on Access 2019. Before we get started and jump into the content I just want to take a few moments to explain to you the structure of this course.

Now this course is arranged into sections and in each section are modules with videos. Now this course is designed to be followed in sequence, so try not to be too tempted to jump ahead. Now saying that, if you have used a very recent version of Access before coming to this course there might definitely be some sections, particularly towards the beginning, where you might want to skip ahead. For example, we'll be discussing things in some of the earlier modules like how to use the Quick Access Toolbar and some things which are more generally related to Microsoft functionality as opposed to specifically Access functionality. So if you are very used to using Microsoft products there may definitely be some modules at the beginning which you can comfortably jump ahead of.

I'm also going to be setting some exercises throughout this course. And not only will I show them to you but we will also do them together. And I'm going to save my own copy of the exercises in the exercises files folder and you'll find a downloadable link for that under the relevant section in this course. So make sure that you're familiar with those and you know where they are located. And the contents will look something similar to this. And as I said, we will be referring to these files in the course.

I'll also be doing some demonstrations throughout this course. And what we're essentially going to be doing is we're going to be developing a very straightforward database. And the files I use for that will be in the course files folder, which will look something like what you see on the screen right now. So again, make sure you're familiar with where those are located and save them all off to your PC. And I recommend that you use these files to work along with me with.

So hopefully that gives you more of an idea as to how this is structured and the files that we're going to be using.

That's it for this section. I will see you in the next one where we'll be talking about how you can use database templates.

Section 2 – Getting Started with Access 2019

Video: Using Database Templates

Deb: Hello again. This is Deb and welcome back to our course on Access 2019. It's now time to start using Access.

So what we've got here is just a blank desktop and the first thing I'm going to do is I'm just going to search for Access using my Search at the bottom here. Now I'm using Windows 10, so if you're using a different version of Windows then it might be slightly different, but I'm just going to type in Access and you can see there the app is the first one listed. So I can click it just to open it, but because I'm going to be using Access all the time what I prefer to do is right click and I'm going to select Pin to Taskbar. And what that will do is it will pin the Access to app to my taskbar at the bottom here so that I can access it whenever I need. It just makes it a little bit easier. I don't have to go in and search for every single time. So I would recommend that if you are using Windows 10, Windows 8, Windows 7 that you do pin it to your taskbar. So I can now just go in and click on the Access icon and that will open up the application.

So this is where you'll be taken when you first open up Access and this is what we call the Start Screen and there are some buttons on here which should look fairly familiar if you're used to using other Microsoft applications. So if you just glance your eyes up to the top righthand corner you'll see we have a little question mark just there which will allow you to access the Access Help. You could also press the F1 shortcut key to get into that. We have our Minimize, if you want to minimize the application, a Restore Down or Restore Up button and we also have our Close button in the top corner. I also have there My Account Details. So if I wanted to see more about that I could jump into there. So those should be reasonably familiar to you if you're used to using other Microsoft applications.

We then have a Menu bar on the left hand side. You can see currently Home is selected. And what I have on this Home page is I have a number of different templates that I can select and the ones that you can see here aren't by any means all of them. If I want to see the whole lot of templates I have on offer I can click that More Templates link on the righthand side. I'm going to come back to that in a moment. I just want you to cast your eyes underneath that. So we have a Recent and a Pinned tab.

Now if this is the first time you're opening Access and you haven't created any databases yet then your Recent list is going to be blank, much like mine is just here. If I click on Pinned you'll also see that that's blank. Now when I start creating a database what I could do if I wanted to if I could choose to pin it and it will then appear underneath this Pinned section. So in general the kinds of databases that you might want to pin would be ones that you use frequently. So it just enables you to access them, get to them a lot quicker.

I then also have options in the left hand menu for creating a new database and also for opening an existing database. So if I have one stored off somewhere on my local drives or maybe in the Cloud, OneDrive for example, I could go in here and I could browse to that database to open it.

Now I'm going to click on New for the time being because we're going to direct our attention to the different templates that we have available. And in Access 2019 databases can be of two types. You can have a desktop database, which is more of your traditional kind of database which sits on your desktop and you would in general use it locally for maintaining databases. And alternatively there is the web app, which is a database that is used online that you can share with others.

Now the reason why you might want to use a template is that it's a really good kind of jumping off point. So instead of just being faced with a blank database that you need to construct yourself you might want to have a starting point that you can build on. And there are a whole host of templates available to you within Access and you can see some that we have here. These are some of the more popular ones you might want to use. There is obviously a blank database which you could use. We've got asset tracking, contacts, students, event management, so on and so forth. So it really depends on the type of database that you want to create as to which one of these is going to be most useful to you.

If I scroll down you can see eventually we do get to the end of the templates. Now if you can't find what you're looking for just here you do have a Search bar at the top to search for more templates. So if I was searching for Contacts, let's just type that in and I'm going to click the magnifying glass. That's going to go away. It's going to search all of the available Access templates and it's going to pull back any that are kind of related to or might be useful if I want to create a database of contacts. To come out of here just click on that little back link and it will take you back to that main starting template page.

Now what we're going to do is we're going to use one of these templates, and we are going to use this one just here, the Contacts template. So let's click on that.

Now what I'm presented with when I select my template is I can see a preview essentially of what that contact list database is going to look like. Obviously it's fairly blank at the moment. I also have a description on the righthand side. So it says Provided by Microsoft Corporation. And then I have quite a lengthy description as to what this database is all about. So essentially it creates and maintains a comprehensive database of your customers, partners and vendors using this popular template. It then shows me the download size. So this is a fairly small template at 143K. And underneath that I then have an option here for choosing my file name, so essentially what I want this database to be called. And the information I have in there currently is really just the default name that Access assigns to this database. So it says Database1.accdb. And it's worth noting that .accdb is the file extension for databases in Access.

And then underneath that it shows me the path or where this database is going to be stored. So I can see currently that it's going to be stored on my C: drive in my Documents folder. And if I wasn't happy with that I could go in and I could use this Browse button and choose a different location in which to store that database.

Now I'm not going to change anything at this stage. We're going to actually save this database using a different name later on. So I'm happy with those defaults.

Now one thing else to point out before we actually create this database is just these arrows that we have on the right and left hand side. If I want to scroll through more of the templates I can click this arrow and it will take me to the next template along. So if I wasn't particularly sure that that contacts database was exactly what I wanted I could use my arrows and go through and see if there's another template that's more appropriate. Now I'm just going to go back because I am happy with that contacts database and I'm going to accept all these defaults and I'm going to click that big Create button in the middle there.

So what we're looking at now is a contact list or a contact management database and it's fairly empty at the moment. We haven't added any contacts into here yet but it gives me a really good starting point for which to start my contact list. So you can see here it has definitions for the information that I will need to have in this contact list. So you can see here it's got first name, last name, company, job title, category, email address, business phone, home phone, mobile, zip. So some basic fields that I can go in and I can complete. And of course you can modify these, you can remove fields you don't want and you can add fields that you do want, which we'll get into later on in the course.

Now the panel on the left hand side that you can see here tells you what's included in this template. So you can see that we have some tables, some queries, forms, reports, macros, and modules. And again I'm going to explain what each of those mean during the course. But this in general is typical of what you will see when you open up a template.

Now it's worth noting that sometimes when you open a template you may receive a security warning. Access does tend to default to being rather cautious when you're opening new files. So before you run it you need to consider where that template came from. So the one that we've just opened was from the Microsoft website. It's an official template so I'm pretty sure that that is a safe place to download this template from. However if you've got your template from some other source you might want to proceed with a little bit of caution. You don't want to download something horrible onto your PC in the form of a template. So just be aware of that. And if you do get a security warning pop up if you determine that it does come from a safe location just click the Enable Content button when you see that warning message.

Now what I'm actually going to do is I'm just going to close this database down again and I'm going to reopen Access and I just want to show you that now because we've created a database underneath Recent you can see our database sitting there. So let's click on it to reopen it and this

is what you'll see sometimes is you'll get a Welcome screen. And it really kind of walks you through what the contacts database is all about. So you have some information just here and you also have a little video if you want to watch that. And all this screen does is it really gives you information on how to use this template.

Now it's worth noting, and the reason why I've kind of shown you this is that you can create your own Help screens and Welcome screens as well, which can sometimes be particularly useful if you're sharing a database that you've created with other people. So it gives them an idea of how they can use that database. Again, I'm going to get too much into that at the moment but I really did think that that was worth highlighting so you know that you can do that.

So I'm just going to close this window down and I'm actually going to close all of Access down again in preparation for our next module.

So that's this module done. What we're going to move on to in the next module is saving and opening databases, so please join me for that.

Video: Creating, Saving and Opening Databases

Deb: Hello again. This is Deb and welcome back to our course on Access 2019. In the previous module we looked at those different Access templates and we opened up the first contacts list database. So now what I want to talk about in this module is how you can create, save and open databases.

So we're starting off back at that Home screen and if you look now underneath Recent you can see that we have our Database1.accdb, which was that contacts database that we created in the previous module.

So what I'm going to do is I'm just going to double click to open that database and again as we discussed previously you will get a Welcome screen which I'm just going to close by clicking on the cross at this moment in time.

So now I have this contact management database open and we did give it a rather generic name. We took a default name of Database1. So what I'm going to do now is I'm going to save this and give it a different name of my choosing. So I'm going to go to File, I'm going to go down to Save As and I'm going to save this just as a regular database. So that's the default option just here with the .accdb extension, and I'm going to click Save As.

Now you'll see what I get here is a little warning message which says, All open objects must be closed prior to continuing this operation. So what that actually means is if I just close that down and click the Back arrow to go back to my database I actually have to essentially close down this database in order to save it. Which kind of seems a little bit counterintuitive but I'm going to go all the way over to the righthand side and you'll see just here we have a little cross. And as I hover over it says, Close Contact List, which will essentially close that database and all the attached objects. I can now go back to File, down to Save As and click the Save As button again, and this time it's going to let me save this database in a location of my choosing. And I'm going to save this in the course files folder and I'm going to call it Contacts01. I'm happy with that .accdb file extension and I'm going to click on the Save button. Again I'm going to close down the Welcome screen and what you'll see is that you will get a security warning at the top here. So all you need to do there is just click Enable Content. And I'm going to close down all of Access one more time and I'm going to reopen. So let's click on Access from my taskbar.

So this time when we open up Access you can now see under Recent I have those two separate databases. So even though they are essentially the same at the moment we've got two separate file names, two separate databases. And you can see Contact01 has the path name of where that file is actually stored underneath.

Now obviously if I wanted to go back in, just working on that contacts database I can double click to open it. But if I wanted to open a different database I would go to the Open button from my menu on the left hand side and what you can also see in there is my contacts database and my

Database1 that we've created. So I can open from there as well. But alternatively if I have another database stored off I could choose a location from which to open it. And this will really depend on what services you have access to. So you will be able to browse locally on your PC. And if you are connected to Cloud storage, so maybe something like OneDrive like I am just here, you can go straight in there and open an Access database that you have saved to the Cloud.

Now what we're going to do is we're going to go back to New and we're going to create a new blank database. So we're essentially going to start from scratch to work on the course database that I'm going to use for most of the demonstrations in this course.

So let's click on Blank. So again you can see that this new blank database has a default file name and file location. Now I'm actually going to change this because I want to save this into the course files folder and I'm going to change the file name at this point as well. And this database that we're going to be creating is essentially for a travel company that runs some rather exclusive tours. And the name of the travel company is Esprit de Tour. So I'm going to change this file name. I'm going to delete out Database2 and I'm going to call it EspritDeTour. And this database is going to go through a few different versions. So let's add 01 on the end just there and click on Create. And there we go. We've created our first new blank database.

Now one thing that you may notice is if you look at the top you'll see that the file name is very long at the top there. So where it says EspritDeTour01 and it then has Database and then a very long path name as to where that database is saved. And that looks a little bit messy there at the top of the screen. Now we're going to sort that out later on. I'm going to show you how you can make that look a lot neater.

Now what you're actually looking at when you open up a blank database is basically a single table. And this is where you create your database. And at the moment it has nothing in it. And we're going to build on this throughout the course.

Now one other thing to show you just before we leave this module is that when I click on File one option I have there is Close. So let's click on Close and what you'll see is that it doesn't actually close Access. It only closes the current database. So I just wanted to point that out because sometimes that can be a little bit confusing. You're never sure if you're closing the file or if you're going to close Access entirely. So in this instance it closes the current database that you have open but leaves the Access application open.

So that's about it for this module. In the next module we're going to be talking about the Access workspace and the backstage area, so please join me for that.

Video: The Access Workspace and Backstage

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to take a look at the Access workspace and we're also going to delve into the backstage area. And really the aim of this module is really just to give you a tour around the Access workspace and get you familiar with some of the features and functionality.

Now we're starting off again back at our start screen. You should be reasonably familiar with this now. And if you look at what we're looking at here, so underneath Recent, our list of databases is getting ever longer. Each time we go in we have a new database that we've created listed there. And eventually this list will start to get so long that databases will drop off the bottom of that list. So it will be a little bit harder for you to find recently used databases.

Now one way that you can get around that, and I did mention this in an earlier module, is to pin databases that you use frequently. So for example, if I hover over EspritDeTour you can see that I get this little Pin icon. And if I hover over it says, Pin this item to the list. Now I'm not going to do that at this moment but if I was to do that what would happen is that EspritDeTour would then always be available underneath this Pinned tab just here. So again it's just a really quick way of being able to access those databases you use frequently so that they don't drop off the bottom of the list.

Now what we're actually going to do first is that we're going to go back into our Contacts database. So I'm going to double click to open Contacts. Again I'm going to close down this welcome screen and we're just going to do a quick tour of some of the main features of the workspace just in case you're not familiar with them.

Now I will say that if you are very familiar with Microsoft products, so maybe something like Excel or Word or PowerPoint, particularly in the later versions, 2016, 2019, even 2013, then you might be able to skip over this module. If you're not familiar with those versions or if you'd just like a refresher then stick with me because that's what we're going to go through now.

So starting at the top here we have what we call a Ribbon and Ribbons are organized onto different tabs. So you can see here I currently have the Home tab selected. We have a Create tab, we have an External Data tab, Database Tools, and Help. So each of these tabs contains what we call a Ribbon and a Ribbon is this list of commands or different groups of commands running horizontally across the top of your workspace.

And these tabs will change depending on what exactly it is that you're doing at any given time. So we do have something called Contextual Tabs or Contextual Ribbons. And those are ribbons which only appear when they are needed. So if I'm doing something to do with a table it might be that I get at the top here a Table Tools ribbon which I can't currently see because I don't need it. So just be aware of that. These tabs aren't fixed. They will change depending on what it is that you're doing.

But these ones you can see now are the standard tabs for Access. And on each tab we have groups and within those groups we have commands.

Something else we also have is if you glance above those tabs we have something called the Quick Access Toolbar. And it's right here, right in the top left hand corner. And currently when I hover over my Quick Access Toolbar I can see a Save icon, I can see Undo and I can see Redo, and I also have a little dropdown up here which will allow me to customize that Quick Access Toolbar.

Now the Quick Access Toolbar will either be right at the top of the screen or if you prefer you can display it underneath your ribbon. And I actually prefer to have it underneath the ribbon so I'm going to select Show below the ribbon to move it down here. I just find that's a little bit easier for me to see.

Now what the Quick Access Toolbar is is it's somewhere where you can add commands that you use frequently so that they're easy to access. So you're not hunting around through the different tabs and ribbons for a particular command. And you can customize this until your heart's content and you can access pretty much every single command that's available in Access to add it to your Quick Access Toolbar. And I'm really going to cover how you can customize this Quick Access Toolbar in a later module. So just hold that thought for now.

Let's jump right down to the bottom. So right down here we have what we call our Status Bar. And this Status bar can also be customized. So if I right click my mouse on the Status bar you'll see that I have lots and lots of different things ticked. And this is really informational for you. So for example, I've got Caps Lock ticked, which means that when I turn my Caps Lock on you can see in the Status bar it tells me that I have Caps Lock on. So that can be really very useful. I'm just going to turn my Caps Lock off and you'll see that that disappears. So there's lots of pieces of information that you can choose to display in that Status bar at the bottom just be either checking or unchecking in that Customize Status Bar menu.

Now let's move on to this Navigation panel that we have running down the left hand side. This is really what we call the nerve center of our database. It basically lists all of the objects that are available in your database. And you can see that they're categorized. We have tables, queries, forms, reports, macros, and modules. And these can be collapsed or expanded to see the information. So if you have quite a lot of information in this panel and you're only particularly interested in tables you could collapse up all of the others just to make it a little bit easier for you to see. So you have those little chevrons in order to be able to do that. So these chevrons to collapse and expand particularly come into their own if you have a very large complex database, where you might have hundreds and hundreds of objects.

Now most of the time this navigation pane will be open but if it's becoming a nuisance or you don't have any need for it at a particular time you can click on the little chevrons at the top here

just to kind of minimize that. It doesn't close it. You can still see navigation pane just there. And of course you can click on those chevrons again to bring that Navigation pane back.

You can also change the width of it. So if I hover my mouse just over that divider I can drag it out or I can drag it back in again. What you also have in here is a little Search box. So it might be that you need to maybe search for a form or a report or a query and you can do that just using this search facility at the top. So you can type in your search criteria, click on the magnifying glass and it will find it in your Navigation pane.

And another thing you have in this Navigation pane is this little dropdown arrow. If I click it it gives you a number of other options to help you find and deal with objects.

Now in the main window that you can see we have our Contact list. And this looks a little bit like an Excel spreadsheet. It's not in fact a table. It is actually what we would call a Form. And if you look in the Navigation pane we have Contact list just here, which is what we're currently looking at. And in the Contacts list each row represents one line of data. So essentially each contact that we add will occupy a row.

Now the other forms that we have here, Welcome, that controls the welcome screen that comes up whenever we reopen our Access database.

And we're going to take a quick look at Contact details. Now to open this form if I right click on it and I can select Open. Now alternatively I could have just double clicked and that would also open the Contact details form.

So what this shows is all of the detail for one contact on one form. So you might use something like this in something like an application where you're going to ask someone to update their contact details.

Now both the Contact list and the Contact details are forms but they're very different types of forms. You can see that when I open this Contact details it kind of opens in a new window and it looks like it's hovering over the top.

So let me just close that down and apart from opening a form there are other options that you can go into. So for example if I right click again on Contact details I have the option of going into Design view. And you can see straightaway that this is a very different thing all together. This is where I could go into design that particular form. So I can make changes to it essentially.

So if I wanted to I could in and I could do things like grab this little section here and I could move it around. So I can just pick it up and I can drag it down and drop it. So I can really change the design of that particular form. So forms are very different when you're in Design mode to a form in what we call Open mode or Run mode.

Now once I've made my changes to my form and I'm happy with it I can then close this form down by clicking on that little cross in the top righthand corner. And of course it's going to ask me if I want to save the changes to the design of my form Contact details. Now in this case I'm going to say no and I'm just going to close out of that. So the point I'm trying to make here is that sometimes we'll open forms to use them, to add information into our database, and sometimes we'll open them in Design mode.

So now I'm back to my contact list and again I'm going to very quickly just close Contact list down. I'm going to click on the Contact list form in the Navigation pane, I'm going to right click and jump into that Design view again. And again you can see here I can go in and I can make some changes to the actual design of that form. Let's close that down.

Now everything I've said there with regards to Design view is equally true of all of the other objects. So it's true of reports. You can run or change the design of some reports. The same for queries, macros and tables. And we're going to look at all of those throughout this course.

So let's move on now back to having a tour of our workspace.

So we were looking at the ribbon tabs earlier which we have running across the top and to the left you'll see that there is a tab that says File. Now this isn't actually a ribbon essentially. If we click on File it takes us into what we call the Backstage area and this is where you'll find a lot of your what we would call administration tasks for your database.

So we've already explored Home, New and Open previously. We're now in the Info tab and we're going to go into some of the options which we have in Info a little bit later on. We have Save As. Again that's something that we've already utilized. We have Print which will allow us to print our database, select a printer or even print preview our database before we print it and we have a Close option. As we saw before that will close down your current database. It won't close down Access.

And then right at the bottom we have an Account option and this shows which account is currently being used for this copy of Access 2019. And it also shows me that I have OneDrive connected just here. On the righthand side I have Office Updates and it's always really important to make sure that your copy of Access is always up to date. So just be aware of that. And I can also do things in here, some more fun things like change my Office background. I have numerous different things I could select. And I could also change my Office theme. So currently I have Colorful but I could go for Dark Gray if I wanted a completely different look. We also have Black and that one is new for 2019, and we have White. So again that's really personal preference.

We then have a Feedback tab which will allow you to send either good, bad or suggestions to Microsoft. And then finally at the bottom we have an Options area. And Options is made up of a number of different pages with settings that make your copy of Access work as you like it. And

we're going to talk a lot more and explore some of these options later on. There's a whole host of features in here which will really allow you to set up Access in a way that works for you. So we're going to come back to that a bit later.

So that is the end of this section. In the next section we're going to talk a little bit about online help and the new Tell Me feature so please join me for that.

Video: Online Help and Tell Me What You Want To Do

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to be talking about online help and the Tell Me feature.

Now before I do let's go back into our Contacts database by double clicking and we're going to deal with something that's probably been annoying up until this point, which is this welcome screen. Now it is a really useful screen, particularly if it's the first time that you're opening the database but if you're just closing and reopening fairly frequently it can get a little bit annoying to have to keep coming in and closing down this welcome screen. So let's look at how we can deal with that first of all.

So I'm going to close it down and I'm going to go over to my Navigation pane. And underneath Tables I'm going to go to Settings. And when you double click on Settings you'll see that there is one row in this table and the second column says Show Welcome screen, if I was to make that a little bit bigger, or sorry Show Welcome. And you can see that it has a tick in that box. So if I go in and just uncheck this the next time I open this database that welcome screen won't be shown. So I'm going to close down this Settings table and I'm going to say Yes and I'm also going to close down this Contact list form.

So now what I want to discuss is Help in Access 2019. And all of the help is located online. So that means that you're going to need an active internet connection in order to be able to access Help. Now the quickest way to access Help in Access 2019 is to press the F1 key on your keyboard and you'll see you then get this pane on the righthand side where you can go in and you can browse through the different categories or you can type in your search criteria, so what it is that you require help on into that field that's flashing at the top.

Now if I wanted to browse I could click on for example Get Started and it will go through and I have a little video there of how to create a database in Access.

And it's worth noting that you can pull this panel out. So if you're finding it quite small if you hover your mouse over the top until you get that double headed cursor you can drag the panel out like so and you can also resize it to make that a little bit bigger. If I want to go back to my category list I have a little arrow just here which will take me back to those main categories.

And just to reiterate the point that I mentioned before, this Help is online so you do require an active internet connection.

Now a good place to start might be to find out a little bit more about some of the new features in Access 2019. So I could go up to my Search bar at the top here and type in What's new in Access 2019 and press the Enter key and I can see that the top link there is probably going to be quite useful to me. So let's have a little click and we can go through and we can look at all of the new features that have been added Access since the last version. So that's a really, really useful

thing. And I would say if you are new to Access 2019 definitely go into Help and definitely have a look through this because it's really going to give you a good idea of some of the new stuff that you can expect.

So again let's click on the back arrow to go back to our menu and if you just want to browse through these categories you can. So if I click on Tables you can see I have a whole host of other links. So again it really depends what you're looking for help on. So really do utilize that Search facility in Help at the top.

So that's your online help. By pressing the F1 key on your keyboard you can access that.

So let's just close this down for the time being. I want to now talk to you about something called Contextual Help. So what that means is that if you're doing something and you access Help you can access it at a point that is relevant to what you're doing. So what I'm going to do is I'm going to open the Contact list form. So I'm going to go to File, I'm going to go to Open, I'm going to select Contacts.

Now one thing you may already be familiar with if you've used other Microsoft applications is the notion of contextual help. And once contextual help is available in Access 2019 it's not as shall we say prevalent as it was in some of the previous versions. But what contextual help essentially means is that if you're doing something and you need help you access it at the point that is relevant to what you're doing. So for example I've opened my contact list form and I'm going to go up and look at the ribbon and I'm going to go to this Text Formatting group at the end of the Home ribbon and just click the down arrow, which is going to take me into my Datasheet Formatting options. So if I was in here and I decided that I needed help on datasheet formatting specifically you'll see that I have the little question mark in the top bar just here. And when I hover it says Help. So if I click on it, now what you'll see here is that when I clicked on that it's basically taken me to a web browser and it's taken me to that standard Help homepage.

So let's just close that down and jump back to Access, close out of here. And this time I'm going to go to a different part of Access. So let's go to Database Tools and I'm going to click on Relationships and I'm going to click on the question mark again. And this time it takes me to Help that is relevant to the task I will be performing. So the reason why I've shown you those two different examples is really just to illustrate the fact that it is a little bit patchy and inconsistent with regards to if you're going to go to a Help page that's specifically directed at the thing you're trying to do or if it's just going to take you to that standard Help home page. Of course remember if you do go to that standard home page you can just type in to the Search box exactly what it is that you're looking for. But just be aware that it can be a little bit flaky in that regard.

Finally I want to talk to you about the new Tell Me feature in Office 2019. Now I say new, this was included in the previous version as well, so in Access 2016, and you'll find it up here. So it's next to your ribbons essentially and it's this little kind of search box that says Tell me what you

want to do. And as I hover over you'll see there is a shortcut key of Alt+Q and it says Just start typing here to bring features to your fingertips and get help.

So let's pretend that I have forgotten how to create a table. So I'm going to type in Create Table and you'll see as I type it tries to match it with actions or commands that are available in Microsoft Access 2019. So if I'm creating a new table Table Design is really the command that I want and I can see that I have it there. So if I click on it it's going to take me into that particular option.

Now it's also worth noting if we click back in Tell me and type in Create Table again I do also have access to further help from here as well. So again whenever you type in some search terms you'll get a list of actions that you can take, but then also at the bottom you'll get a list of Help topics. Now if I just push that arrow out to the side you can see I've got my Help topics just there. So that's another way of kind of getting into that contextual help. And I am just going to tidy this up and close down those tables that I no longer need.

So those are the different ways that you can utilize Help. The biggest thing to take away here is to quickly access Help press the F1 key on your keyboard.

That's the end of this section. I will see you in the next one where we will be talking about the ribbon structure a little bit more so I'll see you over there.

Section 3 – The Ribbon and Toolbars

Video: Working with the Ribbon

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to be discussing the Ribbon.

Now we already briefly took a look at the ribbon in a previous module but I want to go into a little bit more detail now and also show you some useful shortcuts for navigating around and utilizing the ribbon.

So the ribbon that you have in Access 2019 is pretty much similar to the other Microsoft applications and this ribbon structure was introduced all the way back in Office 2007. And it was introduced to replace the menu system. If you can remember back that far we used to have menus running across the top and you'd click and you'd get some dropdown options. So now all of our commands are organized horizontally in what we call Ribbons running across the top of your screen. And it makes it easier to locate and use your commands and settings.

So your ribbon is this big bar which you can see here at the top and your commands are divided into different tabs. So I'm currently clicked on the Home tab and you can see the ribbon and all of the commands. We have Create, External Data, Database Tools, and finally Help. Now these are the standard ribbons that they'll see when you open up Access 2019 but they aren't the only ribbons that you have access to. And again I mentioned this in the previous module, you will see from time to time what we call Contextual Ribbons, which will appear as and when they are needed.

Now in order to move through your ribbons you can just click on them as I did just then. Alternatively if you have a scroll wheel on your mouse you can just scroll, so I'm scrolling down and that will move me across those ribbons or scroll up to go back through them.

Another alternative way of navigating through your ribbons and the commands on those ribbons is to press the Alt key on your keyboard. And what you'll see there is I get some shortcut keys essentially, which will allow me to navigate using my keyboard only. So for example, if I wanted to go to the Create tab I can press C and it will jump me across to there. And then I get a whole new set of shortcut keys that I can use to access whichever command I want. If I want to get rid of them I just press Alt again and it would take me back to my normal mode.

Now on each tab you'll see that we have different groups. So again I'm on the Create ribbon and you can see the different groups we have. The group names are listed at the bottom. So we have Templates, Tables, Queries, Forms, Reports, and Macros and Codes. And you can see that these are separated by a vertical dividing line. So this just groups together commands which kind of essentially belong together just to make it a little bit more organized and easy for you to see.

Now I'm going to jump back across to the Home ribbon for a moment. Now I will say that what you're seeing on my screen might differ slightly on yours and it all depends on your screen resolution. So at the moment because I have quite a large screen resolution I can see all of my groups and all of my commands. However if yours is a little bit more squashed up you might see that these commands will be rearranged ever so slightly. So don't worry too much if yours looks slightly different to mine. It could be just down to the screen resolution or screen size that you're using.

Another thing to point out is if we look at this Clipboard group as an example you can see here within this group that the Cut, Copy and Format Painter are currently grayed out, which means that they're not available for me to use at this time. Now that's because I can't actually use these. So I haven't clicked anywhere in order to be able to use Cut, Copy or Format Painter. If I click in my Contact List database you should have seen some more of these commands in other groups because active because I can now use them. If I had some text in this cell where I'm currently clicked I would be able to highlight it and then Cut would become available. But because I have nothing highlighted at the moment I don't have my Cut option available. The same thing for Copy and the same thing for Format Painter. So these will be deactivated when you can't use them or don't need them and activated when they are available.

Now some controls on the ribbon will bring up a dialog box. So for example, let's go to this big group at the end here, the Text Formatting group. I have numerous different options here for text formatting. A lot of these you're probably fairly familiar with, such as Bold, Italic, Underline, etcetera. But if you look in the corner we have this little sort of diagonal arrow and that's our dialog launcher. So if I click it you'll see that I get a whole host of other options underneath there as well. So watch out for those little launchers in the bottom corner because it will normally give you more options or some other advanced options.

Now I mentioned earlier and I've mentioned a couple of times in the course so far these contextual ribbons which only appear when they're needed. So currently I just have these five tabs at the top: Home, Create, External Data, Database Tools, and Help. Now I'm going to switch into a different view. I'm going to go into the Design view for the Contact Details form. So I'm going to right click on my form and I'm going to go into Design view. And now that I've changed my view and I'm in Design mode if you look up at your ribbons you'll see what I mean. I now have this large ribbon that says Form Design Tools and has three subribbons: Design, Arrange and Format. And these have appeared because I've gone into Design view. So these are now relevant buttons that I can use. So there's lots of controls in here which I can add to my form. Remember in this view I'm designing or changing the layout of my form. And there's lots of different options that I can add. The point I want you to take away here is that you will see these contextual ribbons appear from time to time as and when they're needed. So a lot of these commands weren't relevant or weren't useful to me before I went into Design view, which is why I didn't see all of these Form Design Tools. So in a way it's Microsoft's way of decluttering the screen for you. Only presenting you with options as and when you need them.

So again if you look at these two tabs, the two different forms that I have open, so I'm currently clicked on Contact Details. Now watch what happens to this contextual ribbon when I click on Contact List. You can see it disappears because those tools are not needed in this particular form.

Now one thing I will say about this ribbon is that it does take up a little bit of room on your screen. So if you're doing something and you don't particularly need to use your ribbon at that moment in time, or if you just want to temporarily hide the ribbon you can do that. So if you go over to the righthand side you'll see that you have an up arrow. And when I hover over it says Collapse the ribbon, Control-F1 is the shortcut key for that. If I click it it will just collapse that ribbon all the way up there. If I want to bring it back all I need to do is click on one of the tabs. So if I click on Home it brings that ribbon back. Now it's only temporary. You'll see that if I click back onto my form the ribbon disappears again. So if I now want to lock that ribbon back in place I need to go over to the righthand side again and click on the pushpin to lock that ribbon down once again.

Now of course you can customize the ribbon to suit how you want to use it. And you would do that by going into File and going down to Options. And you'll see in there you have an option or you have a menu item for customizing the ribbon. And this will allow you to remove groups and commands from your ribbons or even create new tabs, new groups, so on and so forth. Now I'm not going to go into detail as to how you do this. That might be something which you can look up if you really want to learn how to customize your ribbon and set it up for you. So I think I'm going to leave that as kind of a little piece of additional homework for you to do, but just be aware that if you do want to do that this is where you would come to customize your ribbon.

Now another thing that you can customize, and again we did mention this briefly earlier on is your Quick Access Toolbar and that was this little toolbar which lurks underneath or in some cases above your ribbons. And I have a few commands on there at the moment and in the next section what we're going to do is we're going to take a look at how you can customize this Quick Access Toolbar so that all of the commands you use frequently are super easy and quick to access.

So that's enough about the ribbon. I will see you in the next section.

Video: The Quick Access Toolbar

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to take a look at the Quick Access Toolbar. And I've pointed this out to you quite a few times so far in this course but what I really want to show you in this module is just how you can customize it to suit your own needs.

Now as we've mentioned before the Quick Access Toolbar you'll either find it above your ribbon in the top left hand corner, but if you remember I moved mine to below my ribbon so I can see it just here. And currently I only have three commands on my Quick Access Toolbar. That is Save, Undo and Redo.

Now if I click the dropdown on the end there this pulls up the Customize Quick Access Toolbar menu. And you can see that the commands that I currently have on my Quick Access Toolbar or QAT for short are currently ticked. So Save, Undo and Redo. And I have a list of ten or so most popular commands that I could very quickly add to my Quick Access Toolbar just by selecting them and essentially putting a tick next to them. So for example if I wanted to add Spellcheck I could click on Spelling to add that to my Quick Access Toolbar. And it just makes it a lot easier for me to find when I need it.

Now aside from these standard few that we have listed you can actually add any command that's available within Access to your Quick Access Toolbar. And you do that by going down to More Commands.

Now this should jump you across to a fairly familiar area. Once again this is something we've been into a couple of times already. And this is essentially your Access Options again. And it's taken you directly to that Quick Access Toolbar area.

Now what you have at the top is you have an option of what you can choose. So currently I have popular commands displayed in this list below. And it's worth noting when you are searching for a particular command that these lists are displayed in alphabetical order, which does make it a little bit easier. So this is what Access determines to be the most popular commands. However you can change that. If we click the dropdown you can select to look at commands that are not on the ribbon, all commands, macros, or you can by whichever tab you think the command is on. In general I'm never really sure which tab the option I'm looking for is on so I generally go for all commands and that will list absolutely every command that's available in Access in alphabetical order.

So once you have your list on the left hand side what you have on the righthand side is essentially your Quick Access Toolbar. So you can see there the commands that I currently have on my QAT. Save, Undo, Redo, and Spelling, which was the last one that I added. So I'm going to go through this list and I'm going to add, let's go for an old favorite. I'm going to add Bold which is just there. So I select it and click on the Add button in the middle and it will add it to

my list. Let's add another one whilst we're here. Let's go for Relationships. So let's click on that one and add to the list.

Now once I've got these on my Quick Access Toolbar I can rearrange the order as well. So if I don't particularly like that order I can choose to move Relationships using these up and down arrows on the righthand side. So I'm going to move Relationships down to the end. I'm going to move Bold down like so.

Now another thing that's quite useful sometimes is if you want to kind of separate your icons on the Quick Access Toolbar into groups. So much like on our ribbons we have those vertical divider lines. You can do the same on the Quick Access Toolbar by adding a separator. And separator will always be listed at the top of the list. And you can add as many of these as you like. So I'm going to click Add, let's add a couple, and I can then choose where I want those separators to live. So I'm going to select the first one, I'm going to move it up and I'm going to add it in there and then I'm going to take the second one and I'm going to add it like so. I'm going to click on OK and it says, "You must close and reopen the current database for the specified option to take effect." Now this is different to all the other Microsoft applications. In Excel or Word or PowerPoint when you click on OK it will just add those icons to your Quick Access Toolbar. But Access works slightly differently. I need to click on OK. I'm going to close my current database. I'm going to close this one again. And you can see that it's added those on. So let me just go in and reopen my contact list and I can now see there is my Quick Access Toolbar. And you can also see those separator lines that we've put in, which just makes it a little bit easier to see and group together different commands.

Finally there is another way that you can add commands onto your Quick Access Toolbar and that is simply by selecting them. So again if I'm on the Home ribbon and maybe I decide that I want to add the Filter command to my Quick Access Toolbar I can right click and select Add to Quick Access Toolbar and you can now see there I have my Filter. So very simple but very important to know how to customize that QAT.

Now we've got our heads around that we can move on to the next module which is going to be all about contextual menu, so I'll see you over there.

Video: Contextual Menus

Deb: Hello again. This is Deb and welcome back to our course on Access 2019. In this very short module we're going to be talking about Contextual Menus.

So apart from using the ribbon to access commands and controls you can right click and take a look at a contextual menu instead. And sometimes that's a little bit easier or a little bit more convenient than having to go up to the ribbons and look for the option that you need. So the idea behind contextual menus is that whatever you right click on it will bring you up a menu that's relevant or contains relevant commands to whatever it is that you're currently clicked on.

So what do I mean by that? Well let's go over to our Navigation pane. You can currently see that I've got Contact List highlighted under my forms because that's what I currently have open. Now if I was to right click my mouse on Contact List you can see I get a list of relevant options and this is what we call a Contextual Menu.

And we've been in here before when we've switched to Design view. So you can see we have some other options in there. I can open this particular form, I can switch between different views, I can export it, rename it, hide it, delete, cut, copy, and also view the properties. So it's a lot easier for me to just quickly right click down here than go up to the ribbon and look for the particular option that I need. So that is one form of a contextual menu.

The same applies if I was working actually in this form. So if I was to click in a field such as Email Address and right click you will see I get a different contextual menu. It's showing me options which are now relevant to where I'm clicked. So in this case I have Cut, Copy, Paste. I can sort. So if I had information in here I could sort it A to Z or Z to A. I can filter on some text and I can do some other sorts as well or searches. So just bear in mind that it really depends where you're clicked as to what contextual menu you will get, but it is always worth doing a right click and seeing if the option you need is to hand.

And it really is as simple as that. As I said, this was a very, very short module but one that was important for you to understand because it can greatly increase your efficiency and improve how you move around the application.

In the next module we're going to talk about how we can use the Status Bar so please join me over there.

Video: The Status Bar

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to be taking a look at the Status Bar.

Now the Status Bar might seem a fairly innocuous thing to spend quite a bit of time on but it's actually really, really helpful.

Now first of all your Status Bar is this sort of blank looking bar which runs across the bottom of the workspace. So you can see over on the left hand side it says Datasheet View and then we have a few other things down here. So Num Lock, Filtered and then we have our different views. So let's look at that in a little bit more detail.

Now currently I have the form Contact List open. And if I look up at the Home tab the first group that I have there is called Views and you can see that it has dropdown arrow. And this just enables me to switch between all the different views. So we're familiar with Design view which we've been in before. We're currently in Form view as that's highlighted in gray. And we also have a Layout view which we could use as well. Now those three buttons correspond to buttons that we have on the bottom righthand end of the Status Bar. So again if you cast your eyes all the way down to the bottom you can see that currently I have Form view selected and there I can switch to Layout and there I can switch to Design view. So you have the options in two different places, on the Status Bar and also on your Home ribbon.

Now if we right click on the Status Bar, again we came into this a little bit earlier on, you have some options which allow you to customize the type of information that's shown on your Status Bar which can be very useful. So the ones that are currently ticked are the ones that are currently turned on. And you can go in and you can turn these off and on to heart's content. So I could untick Caps Lock, for example. So that means that when I have Caps Lock on, so if I press Caps Lock on my keyboard it's not going to tell me in the Status Bar that I have Caps Lock on. If I was to turn that back on you can see that now it's telling me I have Caps Lock on. And I'm going to press Caps Lock again on my keyboard just to turn that off. So it's really an information area that you can customize.

So let's look at this in a different way. Looking at this Contacts List let's suppose that I have hundreds of contacts and I only want to see the contacts with a specific job title. So I could go to the Job Title heading, I could go down to Text Filters and I could say equals Manager and click on OK. So now that list is filtered on managers. Now I know I don't have anything in here but it still has a filter applied to this column and you can see the little filter up there. And what you'll also see is down on the Status Bar it's telling me that it's filtered and that's because when I right click I have that Filtered Option turned on. Now what I'm going to do is I'm going to clear that filter and you can see that the word Filtered has now disappeared from that bottom Status Bar. So it's really an informational area that can be pretty useful.

And remember that information will only appear when there is actually something to show. So now that I don't have this column filtered it's not showing me that information. So it is worth going in and either ticking or unticking the information that you think you might be interested in seeing in your Status Bar. Again just to increase and improve your efficiency and the way that you're working with Access.

That's pretty much it. That's all I wanted to show you on the Status Bar. In the next module we're going to be taking a look at keyboard shortcuts so I will see you over there.

Section 4 – Keyboard Shortcuts and Key Tips

Video: Keyboard Shortcuts

Deb: Hello there and welcome back to our course on Access 2019. In this module we're going to take a look at the use of keyboard shortcuts.

Now keyboard shortcuts are a great way of moving efficiently and working efficiently within Access and some people actually prefer to use keyboard shortcuts as opposed to a mouse. Now that might just be down to personal preference or it might be that they have some kind of physical or physiological reason why they need to use a keyboard as opposed to a mouse.

Now I would say that if you don't use the keyboard much and you're perfectly happy with working with the mouse then you can skip this section, but I would say that I use keyboard shortcuts a lot but I don't tend to use them when I'm recording a video such as this one for demonstration. Mainly for the reason that if I'm using keyboard shortcuts when I'm working in Access you can't actually see when I'm using them so I prefer to use the mouse because it's easier for you to see what I'm doing that way. However in my daily working life I do use quite a number of shortcuts not only in Access but across all of the Microsoft applications. And I would say that most people probably have in general maybe seven to ten that they use all the time. So thing like Cut, Copy and Paste, so Control-X, Control-C, Control-V, and also maybe Save, Control-S, Print, Control-P. People generally have their favorite shortcuts that they utilize all the time. And I will say there are so many shortcuts in Access that you're never going to remember all of them off the top of your head. However there is a way to find out the keyboard shortcut for your commands.

So for example, if I hover over on the Home ribbon the Copy button you'll see there it's telling me that Control-C is the keyboard shortcut for that particular command. If I hover Spelling you can see that F7 is the shortcut key for that. So some of these commands do have that useful screen tip which will allow you to see what the keyboard shortcut is.

However if you hover over some other commands, so let's hover over Totals, you'll see the screen tip literally just says Totals. It doesn't show me the keyboard shortcut. So it's worth remembering that not every command has a keyboard shortcut.

However, if you do want to see a definitive list you can find a list of all of the shortcuts available within Help. So I'm going to press F1 to pull up my Help and I could in Help search for Keyboard Shortcuts. And you can see here the first link there is Keyboard Shortcuts for Access. And I can then put it up and it goes through the whole list in a table. So that might be something which you want to print out, have near you so that you have access to all of those as and when you need them. I'm just going to close that down.

And also remember as we discussed before if you press the Alt key that's going to pull up the shortcuts that you can use to jump between your ribbons. And when you jump across to a new ribbon you can then select whichever command it is that you need. Again, using entirely your keyboard. So don't forget that you have the Alt option there as well.

That's about it on keyboard shortcuts. In the next module we're going to discuss key tips so I'll see you over there.

Video: Key Tips

Deb: Hello again and welcome back to our course on Access 2019. In this module I just want to briefly go into a little bit more detail about those key tips.

Now in the previous module we talked a lot about keyboard shortcuts and I referred you to the definitive list of shortcuts in the Help section. And one keyboard shortcut that I pointed out was F7 for Spelling. So if we remember on the Home ribbon we have Spelling and if I hover over it you can see the shortcut key is F7. So if I now press F7 on my keyboard I have no data in here so obviously its gone through and it's told me that the spelling check is complete, but at least I know that that F7 key is actually working and is actually doing that spell check.

I also highlighted to you that some commands, such as Totals up here, don't have a keyboard shortcut assigned to them. And many commands in Access 2019 don't have a shortcut so that alternative facility then becomes really important and that is what we call Key Tips.

So again if we press the Alt key it lets us access all of our tabs, our ribbons and the associated commands on those tabs using our keyboard.

So if this if I press X that should jump me to the External Data tab, which it does. And now I have a whole new set of key tips to choose from. So if I wanted to look at how to Export to Excel I could press X again and that will take me into my Export to Excel Wizard. So so far I haven't had to touch my mouse at all, which can be very useful for people who have disabilities, for people who have some kind of physiological problem, or even if you just prefer to navigate and find it more efficient using your keyboard. I know a lot of people who really do prefer to keep their hands on the keyboard the entire time as opposed to constantly using the mouse. So this is a great option for all of those groups of people.

Now it is worth pointing out that when you get to the command or setting or control it doesn't necessarily mean that you can do everything using the keyboard, but you can get pretty much most of the way. So if I was on this screen here, now you might think that I would have to use my mouse but if I press the Tab key, can you see that Browse is now highlighted? I could then press Enter to select Browse and then maybe I can use my arrow keys to select a file. If I press Tab again it moves me to the next field and I can press my down arrow and I can select my option by pressing Enter. And I can carry on pressing Tab and it will take me through all my different options. So now I'm on OK and I can hit Enter if I wanted to. So I can pretty much go most of the way using my keyboard, but just be aware that maybe some occasions where you will have to use your mouse. But using a combination of down and up arrows, Enter key, Tab. You can pretty much Tab your way through and select most things.

Now I'm just going to cancel out of there and again it's worth remembering if you are in Alt mode where you have your keyboard shortcuts up here or your key tips I should say, press Alt again to come out.

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Alternatively you can press the Escape key and that will also get rid of those key tips.

So that's it. I just wanted to give you a little bit more detail on those key tips because it is important for a number of different groups of people.

In the next module we're going to be taking a look at databases and language options so please join me for that.

Section 5 – Access Options

Video: Exploring Access Options

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to take a look at the Access Options. And many aspects of Access Options will allow you to essentially customize the way that you use Access. And what I want to do really is just highlight to you some of the ones that I think are useful and also some of the ones that are pretty important to you as well. Now I would always say before you kind of start using Access or even as you're using it that you go into Options and you really review how you have everything set to make sure it's set in the way that's best for you and how you like to work.

And Options is something that we'll revisit quite a lot throughout the entirety of this course. So let's jump into our Options.

We're going to jump up to our File tab and right at the bottom we have Options. And this should look reasonably familiar to you. We have been in here before when we've been looking at how we can customize the Quick Access Toolbar and also how we can customize the ribbon as well.

Now we're going to start up here on the General tab. Now this isn't the most important tab out of all of them but it is worth taking a look in here and I'll just highlight a few things which I think are particularly useful.

So the first thing here is that I have Enable Live Preview ticked. So let me show you what that live preview actually means. I'm going to cancel out of this screen and what I'm going to do is I'm going to go to my Contact List form, I'm going to go up to my Form Layout Tools contextual ribbon and jump into the Design tab. And I'm going to head over to Themes. Now what you'll see here is I get a list of different color themes that I can apply to my form. And Themes really control the styling of your form essentially. So that might be fonts, colors, styles, things like that. Now because I have live preview enabled you'll see that when I hover over any of these in this list you can actually see it changing on my form. And that is what we call a Live Preview. And I actually really like this feature because sometimes maybe I'm not sure which one I want to use so it allows me to kind of go through all of my options before I actually select one.

So with that in mind let's jump back to File and down to Options again and this time I'm going to turn off that live preview and click on OK. And now you'll see that when I go into Themes and I hover over it doesn't change at all. So that setting really is a personal preference. As I said, I actually really like to have this feature turned on. And of course live preview doesn't just apply to Themes. It will apply to things like fonts, table styles, all of those kinds of things as well. So you can turn that off or on, whichever suits you best.

Now another thing is this Screen tip style. And you can see that I have mine set to Show feature descriptions in screen tips. So again let's just remind ourselves what we mean by a screen tip.

I'm going to cancel out of here. I'm going to hover over, let's do Themes again to keep it consistent. And you can see when I hover over that command I get a little pop up box or a screen tip with the title which says Themes and then I get a description of what that command is actually going to do. So that is the screen tip. Now again I find these quite useful because sometimes if you're not sure what something does that can be quite a helpful description, but I do know that some people find them a little bit annoying, a little bit distracting, and sometimes they can kind of cover up what you're trying to work on below. So a lot of people do like to turn these off. So again that is personal preference, but that is basically what we have in this Options area here. I can choose to Show feature descriptions in screen tips, Don't show feature descriptions, so that would just give me the title of themes, or I can choose to turn them off entirely. So again that's another feature that you can customize to your liking. And in this case I'm going to keep all of mine as they were. I'm going to enable that live preview once again.

So let's move down now to this Creating Databases section and you want to make sure that you have the default file format for new blank databases set correctly. And you have numerous options in this dropdown so it really does depend which version you were using.

Now you may have noticed that mine's set to Access 2007 to 2016 and this is a 2019 course. It doesn't appear that Microsoft have added that into this dropdown for some reason, but I would say that the version I'm using, so 2019, is pretty much exactly the same as Access 2016. So I have mine set to that latest version. So just make sure you go in there and check it's set correctly for your version.

Underneath that I then have a default database folder and you can see that this is set to my local drives to my documents folder. And this is where all of your new databases will be created by default. Now obviously you can change that by clicking on the Browse. So if you have a specific location where you want to save your databases please do feel free to in there and change that as well.

And then underneath that we have this New Database Sort Order. So by default a new database is assigned a sort order. And I have mine set to General Legacy. And your default really needs to be set according to language. So my default is set to English. If you're using a different language you may need to use a different sort order. So this is related to how things get sorted in your tables and in your databases so you want to make sure that that is actually relevant to the language that you're using. So again if you're using something other than English then you might want to come in here and select your language from the list.

And then finally at the bottom we have a section to personalize your copy of Microsoft Office and you can see there it has my username and my initials. So this means that this is a copy of Microsoft Office that's registered to me. And if I was doing anything such as comments and things like that it would come up with my name and it will take that information from this section of Options.

I can also choose to set an Office background if I wanted to. So lots of different options in there for me. And also again as we saw previously you can set an Office theme. So that is really down to personal taste and is really just about the look and feel of your copy of Office.

Now there's really only a couple of other things I want to look at in this Options page at the moment. So let's jump across to the second option down in this list, Current Database.

So these are my settings for the current database and you can see the application title at the top there. And this basically determines what is shown at the top of the workspace. So you can see at the moment it says Contact Management Database. Now if I scroll down to the Navigation section I also have the option to switch off the Navigation pane as well. Now you might be thinking, "Why on earth would I want to disable the Navigation pane?" Well, if you're sharing this database with someone else, if they come to use the database that you've created you may want to switch off the Navigation pane to restrict access. So to things like deleting data or going into Design mode, things like that. So it could be used as a kind of way to control the integrity of the database that you've created. So don't forget you have that option in there as well.

I'm now going to jump down to the Language area. And all you need to do in here is make sure that you have the correct language set. So I use two languages when I'm creating courses. I use English United States, which is my current default, and I also use English United Kingdom as well. And you can see both of my languages are listed there.

Now I could add more languages if I wanted to. So if I click the dropdown I have a choice of many, many different languages. So I could just come in here, select whichever one I want to add and then click that Add button just there. And if I want to make a different language a default language, for example if I wanted to switch my default to English United Kingdom I can just select it and click on the Set as Default button at the side.

Now we've already looked at the Customize Ribbon option and also the Customize Quick Access Toolbar. Add-ins we're not going to look at in this course. And Trust Center is something that we're going to look at in a little bit more detail a bit later on. But for now those are the only things I really wanted to point out in your Access Options. We're now going to start making some databases in the next section so please join me for that.

Section 6 – Tables

Video: Creating a Table and Fields

Deb: Hello there and welcome back to our course on Access 2019. In this module we're going to take a look at how we can create a table and fields, so essentially how we can create our first working database.

Now the main example will be the Tour database and we created a starting point a little while ago and now we're going to add some content.

Now before we begin there is one thing that I want to do just to make this look a little bit less messy and that is deal with that big, long title that we have running across the top of the screen. It doesn't look particularly tidy and we have a lot of superfluous information in there which we don't really need to see at this stage.

So I'm going to change that title. And if you remember back to the last module when we were looking at Access Options there was an area in there where we can go and make an amendment to this big long title. So let's jump back into our Options by clicking on File and going down to Options. And I'm going to give this a more appropriate title. So in this Application title box I'm going to type in Esprit de Tour Trips of a Lifetime and click on OK. And there we go. That instantly looks a lot tidier.

Now the core of any database that you create is the data. And the data in modern databases is held in tables. And for this tour database we're going to have a number of different tables. And the first table will contain the details of our core trips. And when I say trip what I mean is a trip is one entity and during the course of a year we may run the trip several times and each instance of a trip we're going to call a Tour. So for example, a trip that we run all year round might run 15 or 20 times throughout the year. So that one trip will have many tours. And what I've done is I've put together an example for you of the information that we might want to keep about trip.

So I've put together an example of the information that we might want to keep about each trip and you can see it there in this Notepad file that I have on the screen. So each trip will have a code, GCA, and GCA is basically an abbreviation of the name of the trip. So in this case Grand Canyon Family Rafting Adventure. And there are several types of trips: Family, Escorted, Group, Activity, and Landscapes. The activity level for the trip is moderate and the country this trip operates in is the U.S.A. We then have a description of the trip, so just a couple of lines just there, and of course later on we might add more detail into this, such as a more detailed itinerary, but at the moment we've just got a very brief description. The duration of this trip is eight days and the price range, excluding flights, is \$3,080 to \$3,112. So with this pricing individual tours, so instances of the trip, the prices will vary depending on when the trip is and how much demand there is. So all of this info is going to be stored for this particular trip.

Now one particular part of the trip, the type, I'm not going to store in the trip table at the moment and the reason for that will become apparent a bit later on. So I'm going to skip Type and I'm going to set up everything else.

Now one or two things I want to highlight just here. What I'm going to do in a moment is I'm going to make a deliberate error and I'm going to correct it later on. So sometimes one of the best ways to do these things will happen later when you become more familiar with Access.

So let me give you an example of that. Look at the trip definition. So it says Country U.S.A. and you might say to yourself, "Well surely some of the trips will go to more than one country. Shouldn't we have a list of countries that are visited on the trip?" And the answer to that is, yes, you should but we're going to deal with that later on.

So the main point I'm trying to get across here is that it's a good idea to try and get things as right as you can early on but be aware that you may need to make changes as we go through creating this database.

And sometimes changing things in database design can be quite hard. So some things are easy to change and some not quite so easy. You would have to go through and do what I would call a little bit of faffing around in order to get it how you want it. So just be aware of that as we move through. So just try and get everything as right as you can from the outset.

So with all that in mind let's create our first table. And this is the table that will hold the trip information. I'm going to go up to the Create tab and I'm going to click on the Table button. And you can see that this has been given a default name of Table 1. We can see that just lurking there on that tab. And Table 1 opens in Datasheet view. And again remember that you can check your views right down in the bottom righthand corner. You can see that the one highlighted in gray is the one currently in use. So I can confirm there that I am in fact using Datasheet view.

Now the other button we have in the bottom righthand corner is Design view and we did look at this earlier. So let me click on Design view. Now one thing that happens quite a lot when you're working on a table is that whenever you do something in terms of design or even creating the table you'll be asked if you want to save. So I am actually going to go in and I'm going to save this table.

Now this is the trip table so you might be tempted just to call it something like Trip. Now what I'm going to do is I'm going to follow a convention whereby the objects have a prefix which identifies the object. So in case of tables the prefix is TBL. So I'm going to call this tblTrip, which identifies that as a table to me. Now this might seem a little strange but I might later on have maybe a form where I maintain trip info, but that would have a prefix of frmTrip. So I would know the difference between the table and the form.

So now I'm in Design view for the trip table. And in Design view I can see the fields that make up the table. So by default I have a single field. It has a field name of ID, it has a data type of Auto Number, and I can put a description in. Now the description I'm going to put in here is Unique Trip ID. And this is not the same as the Trip Code. The Unique Trip ID is a unique identifier and it's a very important part of the table. The importance of that unique ID is best explained in an example.

So let's suppose I set up this Grand Canyon Trip and it runs for a few years and then we decide to drop it. If then later we create a different trip with the code GCA we would need to identify it and we do that using the unique ID. And very often unique IDs are not visible to the people that are using your table or your form or your database. They're more used in the backend. And unique IDs can be searched on for trips, things like that. So these numbers will always be unique and they're very important when you're setting up any kind of trip.

Now before we add fields to the table let's close this property sheet on the right just by clicking on the X, which gives us a little bit more room.

Now let's add a second field. For our second field, if we refer back to our Notepad, is going to be this first line in our trip information, so Trip Code. So let's add in a second field. So this is where I'm going to list that trip code. So I'm going to say Code as the field name. now the default data type is short text. And you'll see that there are many different data types that we can work with and we're going to go through some of these as we move through the course.

Now in description I'm just going to type in Three character trip code. And with this row selected you can see the properties of that field in the lower half of the screen. So in the lower half we have this section here called Field Properties. And if you look at that first section there where it says Field Size we have the number there of 255. And what that means is that we can have a maximum of 255 characters input into this. Now I doubt very much that I would ever have a trip code that's 255 characters long, so we can change this. And I know that all of my trip codes are going to be a maximum of three characters long, so like GCA. So I'm going to change that to three, which will kind of restrict the amount of characters to three characters only that you can enter into that specific field.

Now a lot of these other properties we're going to come back to but there are a couple that I would like to point out.

So just here where it says Required and it's currently set to No. So what this is saying currently is that in order to store a trip this table doesn't need a code. Now that's not correct. I want to make sure that in order to store this trip every trip has a code. So I'm going to click the dropdown at the end and change that to Yes, a code is required to store this information. Then underneath that we have Allow zero length. So again this is set to Yes. So what that essentially means is that the code can be zero characters in length. Now again that's not what I want so I'm going to select the dropdown and select No.

And finally we have Index. Now is this field going to be Indexed? Yes or No? And I'm going to explain a little bit more about indexing at the start of the next module. For now the answer is Yes but the trip code cannot be duplicated. So let's just change that to Yes, no duplicates. So now I basically have the definition of the second field in my trip table.

We're going to be going into this in more detail in the next module so please join me for that. more detail in the next module so please join me for that.

Video: Indexed Field

Deb: Hello again. This is Deb and welcome back to our course on Access 2019. In the preceding section we started work on creating our trip table for the Esprit de Tour travel company and I have a few things that I want to point out before we move on and that's related to indexing and keys.

So as the content of the database grows as the people are using the database it can take longer to find what you need in a database. So really here what I'm referring to is searching. So if you think about it, if you're going to book a trip, so maybe you're on a website and you want to book a trip think about the things that you generally tend search for when you're looking for a trip on a website. It might be that you search by a particular place name or trip type or maybe you search by activity level. So if you want a particularly active holiday you might search for trips that are active. Or you might be more interested in the price of the holiday. So this is where indexing comes in. And indexing really improves performance when searching.

So the last field we added was a code field. If someone wants to find this information about the trip and the code is not indexed Access has to read through all of the trips in the trip table to find that specific code. However if you do index the field it means that Access can essentially go straight to the trip with this code. So it's a lot quicker and it definitely improves performance as Access isn't having to churn through loads and loads of trip codes searching. It can go directly there if you've indexed the field.

Now there's always a downside to these things sometimes and the downside here is that in order to maintain these indexes as data gets modified or changed this process tends to slow down the maintenance process, as in maintaining the data. And you'll see down in the bottom righthand corner it shows a pop up about indexes. So it says an index speeds up searches and sorting on the field but may slow updates. Selecting Yes/No duplicates prohibits duplicate values in the field. Press F1 for help on index fields. So if you do want to read a little bit more definitely jump into that Help file and have a little bit more of a read on indexing.

Now you might be thinking to yourself, "How do I decide if a field that I add needs to be indexed?" And there are some technical considerations but there are also business considerations.

So for example, we've indexed the code and that's because it's a very important identifier. So that would be the sort of thing that you would want to index. An example of something you probably wouldn't want to index would be the description. So not many people would jump on to a website and search for a trip by its description. They're more likely to use maybe the code or the trip name or the price or something along those lines. So really think about that and it will determine whether you need to index that field or not.

Now the other thing to point out here is in the ID field. So I'm going to click on the ID field and I don't know if you can see in this first column here there's a little key symbol. And if you glance up at the Table Tools Design ribbon you can see that we have Primary Key highlighted in gray. So what that means is whatever the ID is it's the main unique way that we identify a record in this table.

Now let's move on a little bit and talk a little bit more about these views.

So we're currently in Design view and you can see that we have a contextual tab up here. So Table Tools and Design and that contains all of our commands. And some of these controls we're going to look at later on but one of them that I want to draw your attention to is this Property Sheet. So if I click that you can see I get that pain up here on the righthand side. I want you to note also that to the left of this button we have some commands for inserting rows and also deleting rows.

And I showed you earlier how you can switch to Datasheet view. There's always a couple of ways to do these things. So if I jump across to this Views dropdown I'm going to switch to Datasheet view. And remember we spoke earlier that whenever you make any changes it's going to ask you to save. So I'm going to click Yes to save and I've now switched to Datasheet view.

So now that I'm in a different view if I glance up at my ribbons again you'll see that I have different contextual tabs now. So I still have Table Tools but this time I have a Fields tab and a Table tab. Now the reason that I get different tabs when I'm in Datasheet view is that in general Datasheet view is what you would go into to make changes, to add fields, things like that. Whereas in Design view we're really controlling the overall design of our table. So different things you'll get different tabs.

So you can see here in Datasheet view we now have those two fields. So we have ID and Code, which is the one that we just set up. Now if I wanted to add a third field I could go across to where it says Click to Add, I can right click and I can select my data type. So I'm going to say Short Text and I'm going to call this field Trip Name. So essentially I've now defined another field. Let's switch back to Design view now. So I'm going to use my button in the bottom righthand corner and you can see now there is my trip name. So I'm going to want to define some properties for my field. So I'm going to click on it. I can see my data type is short text, which I'm fine with. And if I look down in my field properties, again field size 255 characters. Now that should be plenty for a trip so I'm just going to leave that. Do we require a name? Well yes we do. Every trip must have a name so I'm going to change that to Yes. Do we allow a zero length name? Well that's going to be No. And do we want to index this particular field? Now in this case I'm going to say No because in general you wouldn't index text fields. Normally if you want to find a trip with a particular name you would expect Access to go through the trips and find that particular one so we're going to say No to indexed. So those are the basic settings for Trip Name.

What I'm going to do now is put in a description. And that's my field set up. Let's jump back to Datasheet view and of course I'm going to save my changes by clicking Yes and now we have three fields in the trip table. So hopefully by now you can see a pattern of setting up fields in the table.

Now one thing that we haven't done is add any data and I'm going to add a dummy trip now to show you some of the things you need to be aware of.

So each row is essentially a record in our table. So in our case a trip. And we have a row here with a star and it says New. So that indicates that if I start typing in this particular row I'm going to be creating a new trip. So let's set up a code for a new trip. So my code for this one is going to be LEX. So this trip is going to be called Louisiana Explorer. And if you don't have enough room you can drag this column in and out to make it wider or narrower.

Now also note that I have a little pen icon in the farthest most left column. And that just indicates that this record is the one that I'm currently working on.

Now this doesn't have all of the information that we need but it's a very good start. So now we have three fields defined and I've added a row of data.

In the next section we're going to be adding more fields so please join me for that.

Video: Lookup Wizard

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to continue setting up the trip table and particularly focusing on the next field which is Activity Level.

So the key difference between Activity Level and the fields so far is that Activity Level is going to offer up a number of options. So again if we refer back to our Notepad file we can see here Activity Level for this particular trip is moderate, but we might have numerous different activity levels. So we might have moderate, active, leisurely, anything along those lines. So we're going to need to set up something which will allow us to select multiple options. So in this case we're going to set up three different options but you could have 20, 50, 100, as many as you like.

So let's first give our field a name. So I'm going to call this Activity Level and I'm going to Tab to get across to Data Type. Now this time from the dropdown I'm going to go all the way down to the bottom and select the Lookup Wizard option. And this is going to jump you to a wizard. And again if you've used Microsoft products before you may be familiar with this wizard. In general wizards guide you through a process. They can be really helpful if you're not entirely sure what it is that you want to do because they can just help you. You just select different options and then the task is done for you. So I really like wizards.

And the reason why I'm using the Lookup Wizard is because for Activity Level what I essentially want people to be able to do is to pick an activity level from a list. So whether it's Active, Moderate, Leisurely, so on and so forth. And we're going to create that list using this Lookup Wizard.

So let's just read what we have on the screen. It says, This wizard creates a lookup field which displays a list of values you can choose from. How do you want your lookup field to get its values? And you can see the first option there is selected by default. So it says I want the lookup field to get the values from another table or query. Now you could use that option but in this case I want to actually define the lookup values myself so I'm going to say the second option, I will type in the values that I want. And I'm going to click Next.

Now when it comes to setting up the options that a user can select we could get pretty complex and have lots of different columns but in this case we're going to keep it fairly simple and we're just going to have one column. And remember the options we are adding are for Activity Level. So I'm going to click in column one and I'm going to type in Leisurely, Moderate and Challenging. So essentially each trip is classified using one of the three options. And I'm going to click Next.

So now it's asking me what label would you like for your lookup field and you can see it's picked up there essentially my field name which is Activity Level. Now when it comes to naming fields I like to name them without spaces and keep them fairly simple. And you might

have your own naming convention. Now it's not that you can't put spaces in between your words, so Activity, space, Level in this case, but that can cause some problems later on. So just to kind of get around all of that I either have it all as one word or I might separate the two words using something like an underscore.

I have a little checkbox underneath that says Limit to list. So do I want to limit the choices to the list that I've created? So yes I do so I'm going to select Limit to list. I don't want someone to be able to go in there and add in more activity levels.

The next option, do you want to store multiple values for this lookup? Now this is a little bit controversial in Access. So if you have a list what this means is if you allow multiple values it will allow the user to select more than one activity level. Now in this case that might seem a little bit odd. You probably wouldn't have a trip that's challenging and leisurely. So you'd probably just select one in that case. Now this might be valid in some circumstances to select more than one option. So for example, if you had a big long list of countries and this trip applied to multiple different countries then you might use something like a multiselect. But in this case I'm not going to allow multiple values because they aren't needed. So I'm just going to click Finish.

I'm going to add a description for my field. So we're going to say Indicator of how active this trip is.

And let me go down and select my or set my field properties for this particular field. So field size. Now this is only holding one word so it's going to be Leisurely, Moderate or Challenging so I'm just going to change this to 30 characters. That should cover it.

Is the Activity Level required? Yes, it is. Is it indexed? So do we want to be able to search on the activity level? So I'm going to say yes for this because it might be that you want go in and do a search for all holidays that are moderate. So I'm going to say Yes and I'm going to say duplicates okay because there might be multiple trips where Moderate has been assigned as the activity level.

Now because this uses a lookup I'm going to go to the Lookup tab in my Field Properties. It's just next to General just here. And this is where I can set my properties for that little dropdown or that lookup. So you can see the first field here it says Display control and it says Combo box. And again if you've used combo boxes in Excel then you might be fairly familiar with what these are. So it basically just means like a little dropdown box where you can select an option. And again I'm going to explain more about the different styles of dropdown that you can have, but for the moment I'm happy to keep this on combo box.

We then have Row source type. So do you want to get the values from a table, query or type them in? So we chose to type them in, which is value list so I'm going to keep that just there. Then underneath that we have our Row source and you can see there we have the three different activity levels, Leisurely, Moderate and Challenging. And you can probably see very simply how

you could modify those. So if I decided that I wanted to remove Leisurely I could just come into here, highlight it and delete it. Or if I wanted to add another one I could very simply just come onto the end here, I could type in a semicolon and then type in my new activity level in quote marks. So you can modify your raw source from your field properties.

So I'm actually going to do that. I'm going to jump into here and I'm going to add in another field that says Leisurely to Moderate. I'm just putting that in quote marks and making sure I have those semicolons in between. So super simple to modify those. Do I want to limit to list? Yes, I do. I only want people to be able to select the data that I've specified or the activity levels that I've specified. So that's fine. Do I want to allow multiple values? No, I don't. You can only select one. And do I allow value list edits? I'm going to say no as I don't want anyone else other than me changing those values.

So that's the settings for the Activity Level field.

Now I need to set an appropriate value for our Louisiana Explorer trip. So I'm going to jump to Datasheet view. Now this is a warning message that you'll see pop up from time to time and it's basically Access doing a check of its data integrity rules. And you can see here it says Data integrity rules have been changed. Existing data may not be valid for the new rules. It says, This process may take a long time. Do you want the existing data to be tested with the new rules? Now we're still very early on in the process of setting this database up and whilst later on it's probably going to be good for me to get Access to do a data integrity check to make sure everything is okay. At the moment I'm not too worried about that so I'm going to click on Cancel and we run the testing later.

So now we are back at our tblTrip. We can see we have the Louisiana Explorer trip in here and we now have a new field for Activity Level. When I click in this field you can see that now I have a little dropdown arrow and would you look at that? There we have Leisurely, Moderate, Leisurely-Moderate, and Challenging. And for this one I'm going to select Leisurely to Moderate. And again you can widen that column out if you need to.

So the next field to add in is the Country field and ultimately we need to be able to specify that a trip goes to a number of different countries but at this stage I'm just going to record the main country that the trip visits. So in this case it would be U.S.A. I'm going to use a lookup again but I'm going to say that selection is not limited to the list because I'm not really sure about my country list yet. The list might change.

So I'm going to go away and I'm going to set up this country field and I'll join you in a few moments.

So Country is now set up. I'm going to jump back to Datasheet view and I'm going to record the country for my Louisiana Explorer which is U.S.A. And we have one final field to add and that is the Description. Now Description won't be a short text field. It might be longer than 255

characters. So I'm going to change this data type to Long Text. And a long text field can hold up to a gig of text. Now it's a little bit difficult as a user of Access to really be able to know what that means. What is a gig of text? And what I will say is that each field can hold roughly 64,000 characters and I very much doubt we're going to have a description that that's long.

So I'm now going to set the properties for this field and the only one to really point out here is that in general a long text description wouldn't be indexed. So I'm going to have No just there. Let's add a quick description and then let's jump back to Datasheet view and we're going to add a description in here for our Louisiana Explorer trip.

So that's it. We have a few more fields to add and they are all numeric and we're going to cover those in the next module so please join me for that.

Video: Numeric Fields

Deb: Hello there and welcome back to our course on Access 2019. So far we've been setting up the fields in the trip table of the Esprit de Tour database and we're now going to add all of the remaining ones, which are all numeric.

So the first one that we're going to add is the Duration of the Trip in Days. So again let's refer back to our Notepad file and you can see the duration here is eight days. So I'm going to add in a field name and I'm going to say Duration Days and this time the data type is going to be number because it's a numeric field. Now if we glance down to the properties for the field you can see here it says Field Size Long Integer and we have a whole host of different options.

Now depending on how much you know about the way numbers are stored you may or may not be able to choose a number field size. So you might know if it's integer or byte or single or double. You might not have any idea of what those are. And it is a little bit confusing in that way but there is help on this in Access Help. So let's jump into Help by pressing our F1 key. Now because I was clicked in that property field it's actually jumped me to the correct page within Help that I need. If we scroll down you can see a description here of those different options. So you can see here if we were to choose Byte that would store numbers from zero to 255. So if we use byte to store the duration of the trip the longest number of days for our trip could be 255 days, which is roughly eight or nine months. Now that's pretty good but it might be that as this grows we might have trips that are longer than that. So it's probably going to be better for us to go to the next one up which is Integer. So you can see here integer stores numbers from minus-32,768 to plus-32,767, which is a pretty long trip. So to be on the safe side I'm probably going to select Integer for my trip.

Now while we're here I would definitely say it's worth looking through and reading through the rest of these different field types just so you become familiar with them as you set up your database.

So I'm going to close this down and in my field size property I'm going to select Integer.

Now so far we've been ignoring some of these other properties. I want to make sure that when people are storing the duration of the trip they are storing a positive duration. So we don't want a trip that has minus days. We always want it to be on the positive side. So in this property where we have Validation Rule I'm going to say they always must be greater than zero days. And I'm going to add some validation text to that. So we're going to put in Duration must be greater than zero. Is the duration required? Yes, it is. Every trip must have a duration. Do we want it to be indexed? Yes, we do because people will often search on the length of a trip before they select it. And I'm going to say Yes duplicates okay because we could have multiple trips with the same duration and I'm going to add a description which is going to say Duration of trip in days.

So let's now test this out and test some of those rules and properties that we've set up. I'm going to jump back to Datasheet view. I'm going to save, of course. I'm going to say no to testing at this moment in time. And I'm going to go to Duration. Now I'm going to just first enter in a minus number. So I'm going to say minus-three days. And there we go. I get a little pop up that says Duration must be greater than zero. So I can see that those validation checks that I've done there are working correctly. Let's change this now to plus-eight days and that allows me to enter that with no issue.

Now the final thing we need to do with regards to numeric values is price range. So again let's look at our Notepad file. You can see the price range here excluding flights is \$3,080 to \$3,112. And essentially if you have a price range it should be stored as two separate values. So a minimum price and a maximum price. And the reason why we have a price range in general terms is that when someone books a specific tour, so one instance of the trip, there will be a set of specific prices for that tour. So we might have things like special offers for families, things like that. So what we're going to do is we're going to store a minimum price and a maximum price.

So let's jump back to Design view and I'm going to say Price Minimum and the data type here is going to be Currency. Now the currency will be selected based on whatever you have it set up as. So my default is U.S. dollars, which is what my currency is going to be in. I'm going to add a description. So minimum price of trip. I'm going to set some properties. So I'm going to say my validation rule, the price must be greater than zero. And my validation text is Minimum price must be positive. Is this a required field? Yes, it is. Every trip must have a price. And is it going to be indexed? Yes, because I would say that this is probably one of the main things that people search on, and that is the price of a trip.

And I'm going to do exactly the same for Price Maximum. We're going to select Currency, maximum price of trip, validation. It must be greater than zero. Okay.

So let's now jump back to Datasheet view. We're going to save. I'm going to say no to testing. And what you can see here immediately is that for these two new fields, Price Minimum and Price Maximum Access has automatically put in my currency in the correct format for me, which is really good. I don't have to go in and change anything.

So I'm going to grab my minimum price. I'm just going to do a quick copy and paste. So minimum. And let's do the maximum.

So that's it. I've now finished the definition of the trip table. And we will need to load some more data later on, but that's it on the trip table for now. It's now time for you to do Exercise 01. So I will see you over there.

Video: Practice Exercise 01

Deb: Hello there and welcome back to our course on Access 2019. It's now time for you to do Exercise 01. And Exercise 01 is really the first step to creating a Movie Rental database.

Now this isn't only a database with movie information. We're going to start off with movie information and then we will add information related to people doing online rentals of physical DVDs. So not downloads but physical DVDs. And we're going to put a pretty simple database in place.

Now the only reason I have chosen a movie database for the exercises is that movies are something that people in general are very aware of. And they're also aware of the sort of information that is available for movies. But if you didn't like this you could choose to do a subject of your own. So maybe something that's more related to the type of work that you do. But whichever you choose to use, either my example or your own, the main thing I want you to concentrate on is the features that I'm using. So those will be the same regardless of the data that you're using.

Now the way that these exercises work is that I'm going to give you a brief outline of what I'd like you to do, then I want you to go away and I want you to try and do that. And I'll be providing you with my sample answer as well, which you will find in the exercises folder.

The reason I provide my own solutions is that say maybe you get stuck or maybe you haven't had time to complete an exercise you can always use my sample answer as a starting point so you can then move on to the next exercise if you want to.

So let's get on to talking about exactly what I'd like you to do for this exercise.

So first of all I need you to create a movie rental database and it's for the rental company called Night Movies and that's Night spelt N-I-G-H-T. So I'd like you to call the first version of this database Night Movies 01.accdb. And the movie table needs the first four of those fields you can see there. So Title, Director, Year of Release and Run Time in Minutes. Later on we'll add information about genre and the actors in the movies but don't worry too much about that just yet.

Also I don't really want you to start adding lots of movie information as I'm going to provide this to you later on and I'm going to show you how to import it.

One last thing I'd like to point out before I let you get on with this exercise is that you're probably going to want a unique identifier as many movies over the years have been made with the same title.

So give that a go. My solution is in the exercise folder if you get stuck. Good luck with that and I will see you in the next section.

Section 7 – Importing Data

Video: Importing Data from Excel

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to start talking about importing data from Excel. And really what I want to do is just introduce to you some basic ways of importing data into a database.

Now before we start, so far when we talk about a database we mean a single file. And within that file there are many different things. For example, there could be a number of different tables. And we've already seen how to create some tables and you could have a lot of different tables within your database.

Now it's not always the case that these tables will hold the data. It might be that you need to import data from a different source. So the data might be essentially external.

So we mentioned earlier on that when it comes to people booking vacations they probably book and then pay using their local currency. So it might be that there is a table somewhere where we look up the currency conversation rates. Now that might not be a table that we maintain in our own database. It could be on an external website or in an external service or in a different Access database somewhere else. And we really just want to import that data in.

Now when we do access data from another source the term within Access is called Linking. And you can link together tables in other databases. Now we're not going to be covering linking too much in this course but we are going to take a look at importing data and we're going to import data from two different sources, which would be the most common sources. Importing from an Excel spreadsheet and also importing data from a text file.

So how do we do that? Well let's go up to our External Data ribbon and you'll see here the first group we have is Import and Link. I'm going to click the New Data Source and I can choose to import from numerous different sources. So if I hover over from File you can see I can import from an Excel file, an HTML document, XML file, Text file. I can import from another Access database if I wanted to or from an SQL server, Azure database, dBASE file, or I could choose to import from different online services. So maybe you have a SharePoint list or maybe some other kind of data service. And then we have from other sources which will allow you to import from something like an ODBC database, which is basically a database that's compatible with Access. So lots of different ways that you can import data into Access.

Now let me just show you the data that I want to import first of all. So this is the Esprit de Tour trip import worksheet and you'll find this in the course files folder so you can open that up and take a look at it for yourself. And you can see here what we have are the field names essentially or our column headings in Excel. So we have Code, Trip Name, Activity Level, Country, Description, Duration Days, Price Minimum, and Price Maximum. And each row is a different

trip. So we have the Grand Canyon Family Rafting Adventure, Iconic Italy, Special Family Safari, so on and so forth. And if I scroll down you'll see that we have not too many, a dozen or so trips within this file. And what I want to do is I want to import all of these into my tblTrip table in Access.

So I'm going to close down my Excel spreadsheet, I'm going to go up to New Data Source and I'm going to select From File and Excel.

The first thing we need to do, you can see here we've got this little wizard pop up again which will guide us through this process Access is asking me to specify the source of my file essentially. I have a default file name in there so you just want to browse to wherever you have your Excel spreadsheet saved.

I then need to specify how and where I want to store the data in the current database. And I have three options. I can choose to import the data from that Excel spreadsheet into a new table in the current database. So if I was to choose this option it will basically import it and create a brand new table. My second option is to append a copy of the records to a table that I specify, which in this case might be tblTrip. So in this case what it will do is it will import the data from Excel and it will append it to this current table, and that is actually what I want to do. if you remember in tblTrip we currently have one trip listed, that's the Louisiana Explorer and I just want to add all of these trips in my Excel spreadsheet to my current tblTrip table. The third option I have is to link to the data source by creating a linked table. As I said, we're not going to cover linking too much but essentially if you were to select this option it doesn't import the data into Access but it will create a link to it in Excel. So there may be some occasions where you want to use that option.

Now I'm happy with the second option. I'm going to click on OK and you can see the Import Wizard has analyzed my data in Excel. And because it's in Excel it's made it pretty easy for Access to slice up that data according to the various different columns or field names. So I have Code, Trip Name, Activity Level, and if I scroll across just to make sure there's the Description, it might be quite long. I'm going to go to the end, Duration Days, Price Minimum, Price Maximum. So that all looks pretty good to me. So I'm fairly confident that if I was to click Finish on this wizard it's going to import all of that data into tblTrip. So really simple to import data from Excel.

Now I'm going to click Cancel here because I want to actually show you this using a different method, so using the same data but it's going to be stored in a text file as opposed to an Excel file. So I'm going to click Cancel just here.

So before we do this let's just look at the text file. So here we have the Esprit de Tour Trip Import.txt file and again you'll find this file located in the course files folder. And this is exactly the same as the Excel file that we just saw but it's a little bit harder to read. As you can see we don't have the nice Excel grid structure dividing up these different fields. I can see fairly clearly

that we have the code listed in this first column and then we have Trip Name, Activity Level and everything starts to get a little bit bunched up, making it quite difficult to read. However, there is a pattern to this and the pattern is that each of my fields is separated with a Tab key, which is a little bit hard to see but I can almost see in here yes there are tabs in between each of these fields. And it's really important to know what you have separating your fields. We call that the Delimiter. Now in this case the delimiter is a tab but it might be that if you have your data in a text file you've separated the fields using maybe a comma or a semicolon or something like that. But identifying what that delimiter is is really important, as you'll see over the next few steps.

So I'm going to take this text file, I'm going to separate it up so it's nice and neat and we're going to append it to our data that's currently in tblTrip. So let's close this file down. Let's go back to our External Data tab, go over to New Data Source, from File and we're going to select Text File. And again we just need to browse to where we have that text file stored. So there we go, Esprit de Tour Trip Import. I want to append to the bottom of tblTrip, click on OK.

Now Access hasn't done a great job here so far of splitting up these different columns and that's because we haven't actually really told it yet how to split up these columns. So you'll see at the top we've got Delimited highlighted. So it says Characters such as a comma or a tab separate each field. So that is the option that we want to choose. I'm going to click Next and we now need to tell Access what delimiter we're using. And it's correctly picked tab for me. If you have your data divided up in a different way, so maybe your fields are separated by commas or spaces or some other kind of character you can also specify those in here. But with Tab selected you can see now my data looks a lot neater. So I'm fairly happy with that.

Another important thing to select here is to say that the first row contains field names. So the first row where it says Code, Trip Name, Activity Level, those are essentially our headings. They're not actually part of our data. I'm going to click Next. I want to import this to tblTrip which is correct and I'm going to click Finish.

Now once Access has finished importing the data it's going to pop up this little step here. So it says Save Import Steps. So if this is something which I was doing fairly frequently I might want to just select Save Import Steps and it will whiz me very quickly through this process the next time I go to do it with exactly the same settings that we've used. I'm not going to check that. I'm just going to click on Close, I'm going to double click to open tblTrip and there we go. Our data has been imported in. Now of course you can't see all of the descriptions. You may have to widen this column out a little bit, but that is how you can import your data from an Excel spreadsheet or from a text file into a current table.

So that's it for this module. In the next module I'm going to set you another exercise so please join me for that.

Video: Practice Exercise 02

Deb: Hello again and welcome back to our course on Access 2019. It's time now for Exercise 02 and what I really want you to do in this module is just to practice importing data from either an Excel file that I've provided you or a text file. And you'll find both of these files in the exercise files folder. And it really is up to you which one you choose to do. So I would suggest that if you use Excel quite a lot you might want to choose the Excel file. Alternatively there is a text file there for you to import as well. Both files contain exactly the same information so it doesn't really make too much of a difference which one you choose.

Now in the last exercise I got you to create the Night Movies database. So this is what you should really have ended up with. We have our Night Movies database, a tblMovie and we have those five fields that I asked you to add. So ID, Title, Directors, Year of Release, and Runtime Minutes.

Now one thing I do want to point out with regards to these field names because this is really important is that in Access there are a number of what we call Reserved Words. So these are words that Access uses for various different things. So if you use them for field names they might appear to work initially but they may cause you some problems further down the track. So you really want to try and avoid using those reserved words as your field names.

So you might be wondering how you can find out what those reserved words are. Well I'm going to jump up to the Tell me what you want to do bar and I'm just going to type in Reserved Words and I'm going to get help on reserved words and there you go. The first link says Learn about Access reserved words and symbols. And as we scroll down you can then see the list of all of the reserved words. Now some of these you would probably never choose as a field name but there are some in here that you might possibly choose without even really thinking about it. So if I scroll down you'll see you have words like From. So if I was to use that as a field name that might cause me some problems. So it is worth having a quick look at this list of reserved words when you're naming your fields so you don't come across problems later on in the process. So I just wanted to point that out as we're on the topic of field names.

So given the names I've used in the field properties this is version one of my Night Movies database. I've then created a version two and I've saved that into the exercises folder and that is where you'll find my answer if you'd like to refer to that. So let's now look at the exercise I want you to do.

Now as I mentioned I've provided you with two files, an Excel file and a text file, so let's take a look at the Excel file first of all.

So this file has a list of 50 or so movies and the file name is Night Movies Movie Import.xlsx, which you'll find in the exercises file. And you can see here the column headings exactly match my field names. So where it says Title, Directors, Years of Release, Runtime Minutes. That

exactly matches what I have just here. And it's really important that you do have these field names and your column headings exactly matched. Otherwise you'll experience some problems again when you're trying to import. So if you do find there is a discrepancy between the two you either need to come into Access and change the field name to match the Excel spreadsheet or vice versa. You could jump into here and modify the column heading in your Excel spreadsheet before importing into Access.

So what I want you to do in this exercise is just to import this list of movies into the database that you've created, your tblMovie table.

Now the alternative way of doing this is to use the text file which is also saved into the exercise files folder. And you'll see that contains the same information. Again it's just set up slightly differently. So just be aware of delimiter when you import.

So it's entirely up to you which file you use. They will both hopefully give you the same result if you've done it correctly.

So what I'm going to do now is just jump across quickly to my version two of the Night Movies database so you can see my answer.

And here we go. There is my answer. Now you might notice at the top we have Shawshank Redemption listed twice. And that's because I didn't delete out. I started out with that test line at the top there of Shawshank Redemption and because it's also included in the data that I imported it's now listed twice. Now I'm going to leave that there for the time being because I want to show you how you can deal with duplicates and delete them out a little bit later on.

It's worth noting that it's let us add it in because it has a different unique ID. So even though the rest of the information is exactly the same because the ID is different it will allow us to add it into the database.

But this is what you're aiming for. So give that a go, import the data from either Excel or the .txt file into your Night Movies database.

See how you go with that and I will see you in the next section.

Section 8 – Backup, Restore and Repair

Video: Backing up your Database

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to talk a little bit about backing up your database. So we're moving away from building our database because this is a really important step that I want to make sure you understand before we continue on adding anything else.

Now once you start adding data to your database you need to really make sure that that data is safe because let's face it there are things that can go wrong. So for example, if you're working on a laptop and maybe you've started creating your database, if someone stole your laptop then you'd probably be in a lot of trouble. It might also be the scenario that you're working away on your database and for some reasons something gets broken or stops working. So you want to make sure that you have a backup copy of your database.

Now one of the advantages of Access is that everything is essentially stored in one .accdb file. So you don't really have to do anything other than keep a backup or a safe copy of that .accdb file. So all you really need to do is just copy the file on a regular basis.

Now regular basis that might mean different things to different people. So I would say if you use your Access database every day and you're adding data and making changes you really don't want to lose a lot of data. So I'd probably suggest that you take a copy of that file every day if you're updating it every day. If you only use your Access file occasionally you might want to take a copy on a less frequent basis. You also might want to take a backup just before you make a major design change. So there might be many reasons why you might run a backup and I do highly recommend that you do do this so that you don't lose any data.

And there's a really good Help topic that tells you how to back up and also how to restore your database.

So here is that Help topic and all I've done is go into Help and search for Protect your data with Backup and Restore processes. So I would recommend that you have a read through here. And as you scroll down you can see in this article we have things like it will tell you how to plan regular backups, backup a database, backup a split database, restore, and also restore objects in a database as well. So I would recommend that you have a little read through this and implement your own schedule of backups, be they weekly, monthly, daily, whatever suits you for how often you use your database.

So I'm just going to close down that Help topic and I'm just going to show you very quickly how I might save off or back up this Night Movies database, and it's very simple. It's really just a save process. So we're going up to file, we're going down to Save As, and you can see in our Save Database As options we have an option for Backup Databases. I'm going to click Save As

and what Access will do is it will take me to my local folders, and again you can just browse and select a folder if you want to. You might want to have a specific folder that you've created for backups. And the only difference here is that if you look at the file name you can see that it's given it a date. And this is really useful because it tells me when I saved this file. So if I'm looking to restore a file that date is going to be very useful to me. So essentially all you're doing there is really just taking a copy of the .accdb file. So nice and straightforward. But as I said, do have a read through all of those Help options so you fully understand and can implement a backup process.

So that's it for backing up. I will see you in the next section.

Video: Compact and Repair

Deb: Hello again and welcome back to our course on Access 2019. In the preceding section we talked a lot about backups and the importance of backing up your data. And as I mentioned it is essential to do this before you start investing too much time in creating your database. And over time Access databases can become what we might call bloated. And also over time you might find that your database gets broken in some way. Now I've mentioned this previously in relation to restoring your database but sometimes it is possible to repair a database without having to restore it entirely. So we're going to talk about the Compact and Repair option in this module. Now as always I'm going to refer you to the Help topic for some further reading.

So here is the Help topic and you can see there I've just searched for Compact and Repair. And again I would suggest that you have a little read through this as it will talk you through exactly what you need to do and the steps you need to take before you start to compact and repair a database. So lots of information in there for you to read and also some very explicit instructions on how you can do that.

Now let's just talk very quickly about what we mean by Access databases getting bloated. As you start or begin to add data into your database now obviously that file is going to grow with use. So the .accdb file gets bigger and bigger over time. When you do things like delete records from your database the space is not automatically reclaimed. It just occupies kind of what we call empty space. And there are also pieces of coded data within your Access file that Access uses. And over time we get this effect called Bloat. So what we want to make sure that we do is that we remove the unused bloated space essentially and we use the Compact and Repair options to reduce the size and improve performance.

Now this is also useful if you have a file that's become corrupted. And if a database file does become corrupted sometimes Access will realize this and it will prompt you to repair the file, which is absolutely fine. However sometimes it doesn't prompt you so you might carry on working for days, weeks, months without realizing that your file that you're working on is actually corrupted.

So one way of dealing with this is to run a Compact and Repair. And really you should run this not only when you're prompted to run it but also as part of a general regular maintenance procedure. So I'm going to show you now how you can access that Compact and Repair option.

So let's close down Help and I'm going to jump across to Database Tools. And you'll see the first option there is Compact and Repair, so fairly straightforward. You can also access the same option in the backstage area. So let's go up to File and you can see on the Info tab we also have the same Compact and Repair Database button. So either of those will do the job.

Now what I would say is that before you do run a Compact and Repair, and this kind of harks back to the previous module, that you do a backup before you do a Compact and Repair.

Compact and Repair is usually successful and it will certainly compact the data and repair any problems but it's always good to be able to go back just in case something goes wrong. So do make sure that you take a backup before running this option.

Another point worth noting is that you should only really do a Compact and Repair when you have the database open for exclusive use. And what I mean by that is if you're sharing this file and lots of people or maybe just one other person are working on it then doing a Compact and Repair could be pretty dangerous. So you want to make sure that before you run a Compact and Repair that you are the only person who's working on the database.

Now there is a way that you can check that. So maybe you're not sure if you are the only person and you want to check to make sure that that is the case. So I'm going to show you how you can check that very quickly.

Now the first thing I'm going to do is I'm going to close this Night Movies database so that I just have Access open. I'm going to go to File, down to Open and I'm going to click on Browse. I'm going to find my file, which is this one just here, and instead of doing a straight Open what I'm going to do, so I'm going to click that dropdown and you can see there that we have an option for Open Exclusive. Now what this means is if I select this option the file will only open if I am the only person using that file. So it's a good way to check that you are in fact the only person who's currently in that file. And there we go. My file is open so I know that it's just me who's working in this file. And I can then go in and run my Compact and Repair database safely.

Now one other option I want to point out to you before we leave this topic is in Access Options, so let's go to File and down to Options and I'm going to jump across to that current database area. And I just want to highlight to you this option just here in the middle of the screen, Compact on Close. And what this means is that Compact and Repair will run every time you close the database. Now I would say to proceed with caution with this. You should really only set this if you know that you're the only person who uses this .accdb file, but that can be a way of keeping everything simply very small and tidy on a regular basis. But just be aware that you have to be the only one using it.

So finally I would just urge you to read through that Help topic on Compact and Repair and implement a regular schedule for running it.

That's it for this section. I will see you in the next one.

Section 9 – Datasheet View

Video: Design in the Datasheet View

Deb: Hello again and welcome back to our course on Access 2019. In this section and the next couple of sections we're going to look at Datasheet view in detail. Now I mentioned earlier that you can do design in Datasheet view and also data maintenance, but Datasheet view isn't the most suitable way of doing either of those things but people do like to use it. So what I'm going to do in this section is to look at how you can do design in Datasheet View and in the next two sections we will concentrate on the data aspects.

Now the first thing I'm going to do is I'm just going to turn off or minimize this Navigation pane by click on the double chevrons. And let's select the Fields tab in the Table Tools group. Now let's explore some of the options that we have on here.

So the first group just here is the Views group. And if I click the dropdown you can see that we have those two different views in there, so Datasheet view that we're currently in and also Design view. We've been in here a few different times so you're probably fairly familiar with this. But just be aware also that you can toggle between those two views simply by clicking the top half of that button.

Moving along to the next group we have an Add and Delete group. Now we actually added a field in an earlier module so you've seen how you can do that using the Click to Add at the end of the columns but I could do this a slightly different way using this Add and Delete group. So for example, if I was to select the Country field I could add a field of one of these data types simply by clicking on the button. So for example, if I click on Short Text you'll see that it adds a new field to the right of Country and the data type is a short text field. And it gives it a default name of Field 1 which obviously you can go in and you can modify.

Now some of the most popular data types that you might want to select are shown in this Add and Delete group. But if you click on More Fields you'll see that there is a whole host of different data types that you can add. So you're not just limited to the ones that you can see in that group.

Now another button that you'll see in this group is the Delete button. So let's just do the reverse of what we just did. So I'm going to select the field that we just added. I'm going to click Delete. It's going to ask me if I want to permanently delete the selected field so I'm going to say Yes and there we go. It's gone again.

Now this time I'm going to select the Trip Name column and you'll see in this Properties group that I now have some commands that are active and ready for me to use. And one of them is Name and Caption. So I could come into here if I wanted to change the field name, if I wanted to change the description, and I could also add a caption and caption is something we're going to be

talking about a little bit later on in the course. I could also come in here and change the field size for this particular field. So if you remember we set the properties to this field to 255 characters but I could easily modify that from up here as well.

Now I also want you to notice these other options which are not currently enabled. So Modify Lookups, Modify Expression, and Memo Settings. Now I'm going to go back in and just select the Country field again and you can see that Modify Lookups is now enabled because if you remember we set this Country field up as a lookup. So let's click on Modify Lookups and this will again allow me to go in and make changes to that Lookup Wizard. So if you remember we just added U.S.A. into our lookup but I could add in more in there if I wanted to.

Let's select the Description field and see what we get for that. Now once I highlighted the Description field you'll see that Memo Settings has now become available for me to select. And we haven't looked at Memo Settings at all in this course so far. Now if I click the dropdown you'll see that there's two options there, Append Only and Rich Text. Now if I was to select Append Only it means you can only add text to the description. You can't essentially change what's already there. So you might use this option if you want to keep some kind of running log of what's happened. The second option you have is Rich Text and this means that it will be formatted as HTML. So if you wanted to add some formatting into the description, so maybe you wanted certain words bold or italics or underlined, something on those lines, you could use this Rich Text option in order to do that. Now I'm not going to apply either of those at this stage.

Let's now look at the Formatting group and I'm going to use the Duration Days column to look at this. So you can see that this is a number field and currently the formatting is set to General Number, but I could if I wanted to click the dropdown and change this. So I could change it to a currency, Euro, fixed, standard, percent, or scientific.

Now also note these buttons underneath. So again this just gives us a quick way to apply currency format, to apply percentage format, and to apply common number format. And we also have an increase and decrease decimal button. So for example, let's jump to the Price Minimum column. If I wanted to add in some decimal places I could increase or I could decrease back down.

And the last group we have on this ribbon is the Field Validation group. And many of these settings were set when we setup this field in the first place. If you remember we did a lot of this in that bottom pane. So I can see here that this is a required field and also that it's an indexed field.

And then we have this big Validation button. And this will show if there's any validation applied to this particular field. So if I click Field Validation Rule I can see here the rule that we set up for Price Minimum is greater than zero. So that's the validation rule that we have set up for this particular field.

Now the dialog box that you can see here is called the Expression Builder and we're going to look at this in more detail later on. But you can build up very complex validation rules and you can also maintain the field validation message.

And I mentioned earlier that sometimes you need validation to consider more than one field at a time. So you can use Validation Control to set up a record validation that includes more than one field in a record. So let's do an example of this. So what we want to say or what we want to build an expression for is that the minimum price can't be more than the maximum price. So I'm going to cancel out of here, I'm going to click on Validation again and I'm going to go to Validation Rule. Now what you'll see here in the Expression Builder is that we have a list of all of our fields. So I'm going to go in and I'm going to create my expression. So I'm going to say Price Minimum and I'm going to double click, is less than or equal to Price Maximum. And the reason why these have come up in square brackets is that square brackets indicate that it's the field that we're using. And I'm going to click on OK and I'm going to add a validation message. Minimum price cannot be greater than maximum price and click on OK. So let's try this out. I'm going to change this minimum price in this first one to \$3,880 and I'm going to click somewhere else in the column and you can see there we are now getting that validation message pop up so I can see that that validation that we've added is kicking in, it is working. Now I'm actually going to change this back so I don't keep getting that message pop up. And when we click away this time obviously we don't get that validation message.

So now let's move on to taking a look at the other tab that we underneath Table Tools, which is this one here, Table. Now I'm not going to focus or spend too long on this tab but there are some things that I'd like to highlight to you.

Now we have three groups in the middle, Before Events, After Events and Named Macros. And these are associated with macro code that may be run as a result of certain events occurring. So if someone makes a booking you may need other information in the database to update, such as the availability of a trip or you may need to trigger an action, so something like maybe triggering an invoice to charge the customer the deposit or the balance. And as a result of these triggers other things may happen.

Now we aren't covering programming in any great detail in this course but we will be looking at macros a little bit later on.

Relationships, which is this final group just here, we're going to cover in great detail over the next few sections.

And then finally the other thing that we have is this Table Properties. And this really relates to sorting and filtering. And that's exactly what we're going to be looking at in the next module. So hold that thought and please join me for the next module.

Video: Sorting and Filtering in Datasheet View

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to look at sorting and filtering in Datasheet view. And in this section and the next section it's a good idea to have the Home tab selected as many of the things that we're going to be doing in these modules are all located on this Home tab.

So the first thing we're going to look at is Filtering. Now at the moment we have a dozen trips or so and it's not really that difficult to see them. So if I'm looking for a particular trip I can just look down that list and find the trip that I want. However, once you build your database and you have a much larger number of trips it might be quite hard to find them or find the specific record that you want. So for example, I might want to find a trip that's within my price range or I might want to find a trip that has the required activity level that suits me. Now filtering can help you a lot with this.

So let's use this example. I'm going to take Activity Level and I might want to say that I want to see all trips classified as Moderate. So I'm going to select my activity level, I'm going to go up to the Home ribbon into the Sort and Filter group and you can see there I have a Filter option. Now that's one way of getting to your filters. I'm just going to cancel out of there and show you another way. I could also just click on the dropdown arrow next to the Activity Level column heading and I'd get the same options.

So when you first go into your filter, and we're looking at this section just here, you can see that all of the options for Activity Level are currently selected. If I deselect Select All it's going to remove the ticks from all of those. So I can now go in and just select the option or the activity level that I'm interested in. So I only want to see the trips which have an activity level of moderate. And click on OK and there we go. It's filtered that list quite nicely for me. Things are a lot easier to see.

Once you've applied a filter you'll be able to tell that you've applied a filter to a column because of the little icons. You can see here we have this little filter icon just there.

Let's click it again and if I want to put everything back to the way it was I could choose to clear the filter from Activity Level or I could choose to select all again. So I'm going to clear the filter to bring everything back.

Now that's an example of a very simple filter and filters can be a lot more complex than that. So maybe this time I want to filter by Country. So I'm going to select the dropdown again, I'm going to deselect all and maybe this time I'm only interested in trips that are in the Americas. So I'm going to go through, I'm going to say Costa Rica, I'm going to scroll down and U.S.A., click on OK and there we go. I have my list of trips. I'm going to go up and I'm going to clear that filter from the Country field again. So that's all fairly straightforward. Let's look at something slightly different now.

I'm going to click on the Description field and there are also some specialized types of filter. Now the Description field we wouldn't necessarily generally search for an entire description of a trip but we might want to look for a specific word in that description. So maybe I'm interested in trips which involve trekking. So I might want to look for the word Trek. So I'm going to go down to Text Filters and I'm going to go to Contains. And I'm going to say Description contains the word Trek and click on OK. And there we go. I have one record.

I'm going to go back to my filter and I'm just going to clear that filter from Description but I want you to take a look at the other text filters that you have in there. So I have equals, does not equal, begins with, does not begin with, contains, does not contain, ends with, and does not end with. So lots of different options there for your text filters, depending on what it is that you're looking for.

Now filters don't just apply to text. You do have some numeric filters as well. So I could if I wanted to filter on the number of days. So if I wanted to see all trips with a duration of eight days I could say equals to eight but I want to draw your attention to the price maximum column just here. Now it might be that I say to myself, "Right. The maximum price that I can afford is \$3,000." So I could go into Price Maximum, go into Number Filters and I could say less than and it will say Price Maximum is less than or equal to \$3,000. And there we go. I know that those are the trips that are going to be within my budget.

Now I could make that slightly more complicated. Maybe I have a maximum price of \$3,000 but I also don't want to go on a trip that's too cheap. So maybe I'm looking at a price range. So maybe I want trips that are more than \$2,000 but less than \$3,000. So let's go back into our filters and number filter and I could say between. So I'm going to say between \$2,000 and \$3,000 and click on OK. And there we go. I have my list.

So lots of different ways that you can use filters to really pull out the information that you're interested in.

Now that should be enough just to get you started but there are some more advanced features that you should be aware of when it comes to filtering.

Now if you go up to the Home ribbon into the Sort and Filter group you can see here we have a Toggle Filter button which is currently activated. And this will allow me to toggle between the entire list or back to the filter that I've just applied. And then above that I have an Advanced button. So I can do things in here like clear all the filters, but I can do things like filter by form. Now with this option you can set filters on more than one field at a time to come up with a much more complex filter. Now that's kind of outside the scope of this course but if that is something that you think you might want to use then I would encourage you to do some further reading on that. Now I'm just going to go back in and I'm just going to clear my filter from Price Maximum.

So let's now do some basic sorting.

So in a table where you have a primary key the table is by default sorted by that key. So if you remember the primary key in our table is that ID field and that is what this table is sorted by. But if I wanted to sort by say Country, again I can click the dropdown and I have some sort options at the top here. So I can sort A to Z or Z to A. So if I select A to Z it's going to sort by country alphabetically. And of course you can also sort on numeric fields. So again if we go back to Price Maximum I could sort smallest to largest or largest to smallest. So those are your sort options in their most basic form.

Now I've just switched across to the Night Movies database because I want to show you a little bit of a problem that can occur and how we can get around it.

So let's suppose you wanted to sort the movies in this database based on title. So we would select the dropdown and we're going to do a sort A to Z or an ascending sort. And what you'll find is that the two movies that appear at the top of the list, so 12 Angry Men and 12 Years a Slave, Access treats numeric characters before alpha. So that is why these two are right at the top of the list.

Now a way around this is that when people set up tables they add another column or a field that's called Sort Title. So a lot of these movies would have the same sort title. So things like A Beautiful Mind the sort title would be the same. But when they were adding in 12 Angry Men or 12 Years a Slave the sort title would be 12 spelt out, so T-W-E-L-V-E. And you could then perform the sort on the sort title column and everything will then be in the correct order.

Another stumbling block with this type of thing is if we scroll down towards the bottom where you have lots of movies that begin with the word The. So again in your Sort Order column you might choose to remove the The or have maybe Lord of the Rings Return of the King, comma, The. I've seen that in quite a lot of databases.

So those are just a couple of things for you to think about when you're setting up your database.

So that's pretty much all I wanted to show you on sorting and filtering. We have one more section where we're going to look at data entry and modification. So that's the next section. I will see you over there.

Video: Entering and Modifying Data in Datasheet View

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to take a look entering and modifying data in a datasheet.

Now we've done a little bit of this already but I want to just give you some more tips and information about finding your way around when you need to add or modify data and just a few tips about how to make it a little bit easier.

So the first thing I'm going to do is just give myself a little bit more room by minimizing the Navigation pane down. And I just want to start out by taking a look at those column widths. And we've seen previously how we can adjust those simply by grabbing hold of the border and either dragging in or dragging out. But if you want it to be particularly specific you could also right click on the column heading and you can see there you have an option for Field Width. And this will allow you to define your column width essentially in units. So currently that's set to 23 but I might want to change that to something like 50 and do OK.

Now what you'll also see in there, if we right click again and go back down to Field Width, you'll see that there is a Best Fit option. So let's click Best Fit and that's basically Access will take a look at the information that you have in your field and it will adjust the column according to what it considers to be the best fit for the information in that column.

And I could apply this to multiple columns as well. So if I highlight or select Trip Name, hold down my Shift key and select Activity Level I can then right click, go to Field Width, choose Best Fit, and there we go. It's applied that to both of those fields.

Now when you're dealing with something which has a lot more information in it, so something like a description where we have these long pieces of text, Best Fit won't necessarily widen this column to the length of the longest item in the column because that could be extremely wide. But it will have a go at it. So let's right click, go to Field Width, and say Best Fit. And it will be pretty wide but if we scroll across we now have a very, very wide column. So much so that we now need to bring into play our scroll bar if we want to move across the screen. And of course if I wanted to change that I could right click, go into Field Width and I might say that I only want it to be say 70 units across. And there we go. Something a little bit more manageable again.

Now we can also do the same for the row height. So again I could do it with two methods. So I could grab this first row until I get that little double-headed arrow and drag down. And you'll see what happens is that it adjusts the size or the row height for all of the rows in this table. Now this can be good for something like description because it will enable you to fit more in and you'll be able to see more of the description simply by adjusting the row height as opposed to adjusting the column width. And again what I could do is right click and select Row Height and I could adjust that manually as well.

Now I'm actually going to put these back to something like they were before. So I'm just going to drag this first one up just to take that back.

Now if you have a table which has many fields there may be a situation where you only need to see a small number of the fields or the columns. So for example, maybe you're particularly interested in working on the Activity Level and the Price Minimum. Now scrolling backwards and forwards between these two can sometimes be a little bit of a pain so you can make your life a little bit easier by moving the Price Minimum column over next to Activity Level. And again this is a very simple drag and drop. So I'm going to select Price Minimum, I'm going to grab the header row and I'm just going to drag it. And you can see I get that big black line which is showing me where it's going to be placed. So if I let go it's now next to Activity Level and I can work on both of these side by side. So just be aware that you can also do that as well.

Now I want to point out that with that it doesn't actually change the design. So if we go back into Design view you can see that I still have my field names in that particular order. So Activity Level is still there and Price Minimum is just there. So it only really changes it in Datasheet view. And I'm actually just going to move that back to where it was.

Now another thing that you can do is you can hide a column. So for example if I wasn't particularly interested in looking at the Description field I could right click and I could select Hide Fields. Now it hasn't deleted it. It's still there and I can bring it back again just by selecting Duration Days and right clicking and saying Unhide Fields. And it will ask me which columns I want to unhide. So I'm going to say the only one there which hasn't got a tick, Description. And that brings it back again.

So again these are all tips on how you can become really efficient when you're working in Datasheet view.

So let's now look at the mechanics of entering data into your datasheet. So first we're going to look at deleting records.

Now this first trip that we have up here, the Louisiana Explorer, this is one that we entered in right at the beginning but it's kind of a dummy trip. It's not a real trip so I'm going to delete that from my table. And again there's always a couple of ways that you can do these things. We can right click our mouse and we have a Delete Record option in there. Alternatively if we go up to the Home tab and into the Records group we have a Delete option just there. So I could say Delete Record. And I'm just going to confirm that that's what I want to do.

Now it's also worth noting that when you delete records from a table it is something that you can't undo. So I wouldn't be able to click the Undo button, in fact it's actually deactivated, in order to undo that deletion. So just be aware of that.

Now notice also that I have selected the ID field in the first record. If I press the Tab key not only do I go through the fields but as I enter each field the contents is highlighted. So if I was to now start typing something else Access is actually going to delete what's already in there because it's going to assume I just want to overwrite whatever is highlighted. So be wary of that as you tab through.

Now if I accidentally make a mistake, so if I press something like X I can come back out of that by pressing the Escape key. So if you do want to go into a field, for example say the Trip Name, and you want to make an amendment to this. So maybe I want to add in another word or remove a word, you must click within that field as opposed to pressing Tab. So now I can go in here and I can make whatever change I need. So just be aware of the difference between clicking and tabbing.

Another thing I want you to be aware of is just finding your way around the different records. So we've seen we can tab through them but if you cast your eyes down to the bottom left hand corner you can see we also have a way of moving through the record. So I can click these arrows to move to the next record or I can go back up to that first record. I could also jump directly to the last record or directly to the first record. And if I wanted to add a new blank record I do also have a button for that down at the bottom there as well.

And just so you know, that you also have in this Records group on the Home ribbon you have a New button which will allow you to add a new record into your table.

Now the final thing I want to show you in this module is that it's useful to also have the ability to be able to find and replace data.

So if I look at my Description field up here I can see that in this first field I have the word Seven. So it says, "Camping wild for seven nights". In this one I have the word "the Big 6". A little bit further down I can see I have it says "Tailored to families with children 13 years." Now I have a bit of an inconsistency here in the way that I'm typing out or using numerical numbers. So here I've got the actual word and in these two I have the number. And it's probably a good idea for me to make those consistent across my database.

So if I wanted to change something like that, so if I wanted to change where it says "Camping wild for seven nights" to a numerical number seven, instead of going through all my records and doing it manually where it's very easy for me to make a mistake or miss something I can use the Find and Replace options that I have available.

So I'm going to highlight my Description field and I'm going to jump up and select in this Find group Replace. I'm going to say find the word Seven and replace it with the number 7. And I want to search in the current field which I have highlighted which is Description and I want it to match any part of the field. Now I'm going to do a Find first of all just to make sure. There we go. It's picked up that word Seven. And that's the only time it finds that word. Now I'm happy

with that so I'm going to select Replace All. And I'm going to say Yes to continue and now if you have a look in that field it's replaced the word Seven for the number 7.

So I would highly recommend if you need to replace certain things, so maybe it's a country name that spelt incorrectly or something like that it's always good to use your Find and Replace options. And they work pretty much the same across the Microsoft applications. So if you've used them in Excel or Word or something like that it's fairly similar in Access.

So that's all I wanted to show you with regards to entering and modifying data in Datasheet view. It's now time for us to start looking at relationships and getting a few more tables into our database, so please join me in the next module for that.

Section 10 – Relationships

Video: Creating a Link Table

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to explore how you can create a link table. And I haven't mentioned this before but Access is considered a relational database management system. So within it you create what we call relational databases. And at the core of the system is a set of tables and the relationship between the entities in those tables. So to demonstrate what I mean to make it a little bit easier to understand I'm going to create a relationship between two tables. Now we only have one table so far in the Esprit de Tour database, which is our tblTrip so we need to first create another table.

Now earlier we talked about trip type and I'm going to create a new table which will hold a list of the different types of trip that Esprit de Tour offer. So I'm going to jump up to the Create tab and I'm going to click on Table Design and this gives me a completely empty table without even an ID field. So on this occasion I'm not going to have an ID auto number type field. I'm only going to have a single field and that is called Type. So let's type in the field name of Type and this is going to be a short text field.

Now because we only have one field in this table I'm going to need to make this field the primary key. So I'm going to select that row, I'm going to go up to the Design tab and select Primary Key. And then I'm quickly going to jump down to field properties and just check what we have going on down here.

So the first thing is field size. Now my trip types are going to be fairly short so I'm not going to need 255 characters. So I'm just going to change that to 30. Is the trip type required? Well, yes, it is. Do we allow zero length? The answer to that is No. And do we want this field to be indexed? Yes, we do but we don't want any duplicates. So I have my single field in my new table set up correctly now. So now let me save this table. So I'm going to go to close it down and it asks me Do you want save changes to the design of Table 1? So I'm going to say Yes. And I'm going to call this tblType and click on OK. So now you can see that over in the Navigation pane we now have a second table here, tblType. So let's open that by double clicking and currently obviously this table is empty.

So now we need to enter some data, which we've seen a few times before. And I'm just going to add in my first record which is Activity. Now I'm going to add in about seven or eight different trip types. So let me type those in and I will see you back here in a couple of moments. So there we go. I've added in my different trip types.

Now one thing I want to highlight here is the spellcheck. So I might want to check to make sure that I've spelt all of these correctly. On the Home tab in the Records group we have an option for

spelling. And I can see there Spelling check is complete. Everything looks good. So those are now my values for type.

I'm just going to close the Type table and I'm going to go to the Database Tools tab and I'm going to open the relationships. Now this window shows the relationships that exist between the tables, which is currently none. But this Show Table dialog will enable you to control which tables are shown in the Relationships window. So I need to show the Trip table and the Type table. And I'm going to click on Add. So now what I need to do is to create a relationship between them which will define that a trip can be of many types. So to do this I will normally a third table or what we would call a Link Table which will link Trips to Types. So I'm going to create the Link table next.

So I'm going to close this Show Table dialog, I'm going to go to the Create tab and this time I'm just going to select Table. And I get that ID field. And I'm going to need an ID field in this case.

Now let me just across into Design view and of course we're going to name our table. So this one is going to be called tblTripType. So that's the name of our link table. And click OK. Now this table will enable you to link each trip to the type of trip that it is. So what I need to do here is I need to specify two things. I need to specify a trip and I need to specify a type. So let's type those in as our field names. So I need to specify a trip and I also need to specify a type. Now by default each of these fields is a short text field, but just be aware that that is not always the case.

Now the Trip field needs to be able to identify which trip I'm talking about, so which trip it's being linked to. So as you know with a trip, and let's jump into Design view for Trip table, so I also want you to note here that I now have three different things open. The unique identifier here for the Trip table is the ID. So that is the primary key. And in order for the Trip Type table to uniquely identify a trip it needs to store the primary key value of the trip it refers to. So let's just jump back to Trip Type table.

So when we are referring to an auto number field, so that ID field, the type we want is not short text. It's actually a number data type. And if you look down in the properties you can see that it's a long integer. So to make this a little bit clearer as to what I'm referring to here I'm actually going to change this field name to Trip ID. So when a field in a record points to a primary key in another record, in this record this is what is called a Foreign Key. So let's add a description for this as well. And I'm also just going to add a description for this ID field. So when a field in a record points to a primary key in another record, in this record this is what is called a Foreign key. So in the table Trip type Trip ID is the foreign key which points to a primary key in a trip record.

Now let's turn our attention to type and I'm just going to open up the Type table in Design view. Now in the Type table the primary key is a short text field because it's the trip type. And there's no reason that I shouldn't use that as the primary key. Therefore in the Trip Type table when I refer to the type I'm referring to a short text field. So this needs to be short text as well. I'm just

going to add a description for this field. So let's now check the properties of this particular field. So I can see here for type we have a field size of 255. So I'm going to change that to 30. Is this a required field? Yes, it is. Are we going to allow zero length? That's going to be a no. And will this field be indexed? Well that's going to be a yes. And duplicates are okay because the same type might be used in many trips. Let's just also check Trip ID. This is a long integer so that's okay. Required? There that's going to be a Yes. And is it going to be indexed? And we're going to say yes to that and duplicates are okay. So I'm pretty happy with how that's been set up so I'm just going to close down some of these tables. So let's close this down. I'm going to say Yes to save changes. I'm also going to close down my tblTrip and also tblType. So we're just left here with our Relationships window.

I'm going to right click just on the blank screen and I'm going to select Show Table which will bring up that Relationship Show Table dialog again. And you can see now we have another table that's been added. So we now have our tblTripType in there as well, which is our link table. And I'm just going to add that table to the window.

And you can drag these tables around. So you might want to move them into an order that you think suits you better or a way that it's easier to understand in your mind. So because this is a link table I'm going to put it in the middle of these two.

So now that we have these tables set up we need to set up the relationships between the tables in the Esprit de Tour database and this is exactly what we're going to look at in the next section, so please join me for that.

Video: Setting up Relationships

Deb: Hello there and welcome back to our course on Access 2019. In the preceding module we started looking at relationships and in order to set up a relationship I created a new table containing the types of trip and a link table that's going to link each trip with the types that the trip has. So in that way we are building a relationship between Trip and Type. So I need to set up essentially two relationships, Trip to Trip Type.

So each relationship is based on the ID in the Trip table and each trip has a unique identifier, that's the primary key. And the records in the Trip Type table for that trip will have the same trip ID in the Trip ID field in the records in the Trip Type table. So in order to set up the relationship we want to drag ID in the Trip table and drop it onto Trip ID in the Trip Type table. So we're going to select ID in tblTrip and drag and drop it on to Trip ID. So what you'll see now is the Edit Relationships dialog box where I can essentially set up the details of this relationship.

So the first thing I want to double check is that I have the correct tables and fields. So I can see there tblTrip. I took the ID field, which is correct. And I dropped it onto tblTripType, the Trip ID field. So that is correct.

The next decision I need to make is whether I want to enforce referential integrity. And I'm going to select that checkbox. Now let me just explain to you what referential integrity is. So imagine a situation where I created a trip and corresponding to that trip I've created four trip type records. So I might have activity, beach, cruising and trekking as my trip types. And each of those has the appropriate type and trip ID for my selected trip. Now what would happen if I deleted that trip from the Trip table? What would happen is I would essentially end up with four records, so cruising, trekking, so on and so forth in the Trip Type table that had no links at the other end of the relationship. So they'd kind of be like orphans. Those records would refer to a trip that no longer exists because I've deleted it. So making sure that that doesn't happen is called Enforcing Referential Integrity. So if I enforce as I've done here and then delete a trip it will ensure that there are no outstanding records that reference that trip.

Now another option I want to point out here is this one, the Cascade Delete Related Records. If I check this and then delete a trip record Access would automatically cascade delete the trip type records for this trip. So that can sometimes be useful to you as well. Now I'm not going to do that in this case but I am going to enforce referential integrity.

And finally at the bottom here we have Relationship Type and it says One to Many. So all that means is that one trip can have many trip types. I'm then going to select Create. And there it is. So we have one trip with many trip types. I'm going to set up a second relationship now.

So from the Type in the Type table this is going to go to Type in the Trip Type table. So let's do that. I'm going to drag and drop like so. So once again I'm just going to do a quick check that I have the correct tables and fields selected. So I can see here the tblType table which is this one

just here. I selected the Type field and I want to create a relationship to the tblTripType Type field. So that all looks good to me. Once again I'm going to enforce referential integrity. So again as just a reminder what that means is if I was to delete a type I would want to make sure that there weren't any entries in the Trip Type table that were still using that type. I have my relationship type again which is one to many, so one type can have many corresponding entries in the Trip Type table. And I'm going to select Create. And there we have our link. And any time you see this infinity symbol it just means many. So that's really a perfect illustration of one to many.

So right there we've put in place one of the most fundamental building blocks in a relational database. Now I know that if this is the first time you're seeing anything like this it can seem a little bit baffling when you don't understand it fully. But it is one of the most fundamental aspects of working well in Access. So if you can get your head around this you can pretty much get your head around anything that you might want to do within Access.

Now one downside to doing this is visualization. So at the moment it's quite hard to visualize how all of these things work together. So what we're really going to want to do is to add some nice forms, which is going to show us. Now we're going to spend quite a bit of time looking at forms and how we can create them. So we're going to do that in the next few modules, but for now what I'm going to do is I'm going to close this Relationships window and I'm going to Save and I'm going to open up my tables again. So let's open up Trip table. I'm going to open up Trip table and also my Trip Type table.

Now I want you to think all the way back to the beginning of this course when we were looking at that Notepad file. Now we mentioned when we were talking about this trip, so this was for the Grand Canyon Family Rafting Adventure, we mentioned Trip Type and it was something that we left out at the beginning of the course and we're actually going to deal with this now.

So this trip has five different types. So family, escorted, group, activity, and landscapes. And we're going to set all of those up.

So let's jump back to the Trip table and notice that I can just jump between my tables by just clicking on these tabs, which makes it nice and simple to switch between them.

Now I can see in here that the GCA trip has an ID of 4. So I'm going to jump to my Trip Type table. So all I need to do is go to Trip ID and type in 4 and a type of, well one of them was Family. So let's do the next one. So this is another one, 4, and the type this time is Escorted. Press the down arrow. That looks fine. Now this time let's make a mistake. So let's say that we're trying to set it up for Trip ID 3 and this time it's going to be Group and you can see there I get a warning message. So it says you cannot add or change a record because a related record is required in the table tblTrip. So it recognizes that the trip ID of 3 doesn't exist. So let's click OK and just put that back to 4. So let me just add in the rest of these types.

Now you might look at what I'm doing here and think, "Wow. This is a really slow process." And there are quicker ways of doing this, particularly if you're entering a lot of data. But the reason why I'm showing you this in such detail is because I really want you to understand kind of from the ground up because it's going to give you a really good foundation and will make anything else you do on top of this seem a lot quicker and a lot easier.

So finally I just want to show you that referential integrity at work. So, so far as we can see here trip four has five types associated with it. So I want to jump back to the trip table. I'm going to go to trip four which is the top one here, GCA, and I'm going to delete it, which is a little bit dangerous. So I'm going to go up to the Records group and select Delete. And you'll see that I get an error. So it says, The record cannot be deleted or changed because table tblTripType includes related records. So essentially I can't delete it until I get rid of the Trip Type tables.

So everything I've shown you here is a pretty manual way of doing a job like this. So we are going to need to start using forms to make all of this a lot quicker and a lot easier. But first before we get onto forms I'm going to get you to do an exercise, so similar to what we've done in this module, and I'm going to get you to set up some relationships in the movie rental database. So please join me for that.

Video: Practice Exercise 03

Deb: Hello everyone and welcome back to our course on Access 2019. It's almost time for us to do Exercise 03, but before you do I want to run through another example of setting up relationships in the Esprit de Tour database. And this is going to help you set up a more efficient set of relationships and a more efficient way of entering data into the movie rental database.

Now what I'm going to do is going to be the same as what I did setting up these types, but I'm going to set up countries instead in the Esprit de Tour database.

So I've created a Country table. It has a single short text field and I've set up the countries visited in one or more tours. Now what I'm going to do is to create the link table which in this case is going to be the Trip Country table.

So I've set up those fields within the link table record and I've set the basic properties for each of those fields, but now I'm going to go one step further and instead of just saying that the country in a trip country record must be one of the countries in the Country table I'm actually going to use the Country table to give me a dropdown list of available countries. So with the Country field selected in the Trip Country design I'm going to click back in short text there and I'm going to select from the dropdown menu Lookup Wizard. And what I'm going to say is that I want the lookup field to get the values from another table or query. And click on Next and the table I'm going to get these values from is the Country table. So that's fine. Click on Next. Which field am I going to use? Well it's going to be that one. It's the only field. And click on Next. And what I can also do is say how I want those entries in the dropdown list sorted. Now here I don't have too many options. I just have one field so I'm going to sort them in ascending order of country. And click on Next. So now it's showing me what would currently be in my list. So that's all of my countries. And I can now if I want to set the width for this list just by dragging those borders. So I'm going to make this slightly narrower and then click on next. And I can even at this point establish the relationship automatically, including enabling data integrity.

Now notice the option there that is selected. I can either restrict delete which is the option that we've used previously or I can cascade delete. Now in this case I'm going to go for the restrict delete option. And then I click on Finish. It tells me that my table must be saved before the relationships can be created so I'm going to say Yes to save now.

Now let's take a look at that Relationships window again. And something that's worth noting, if when you select Relationships you don't see that newly created relationship, if you click on the Design tab under the Relationship Tools and click on All Relationships that will show you all relationships that are set up. Sometimes it doesn't pick it up for a while. So it's worth doing that if you don't immediately see that relationship that's been created between those two tables.

Now as you can see we have a one to many relationship from Country to Trip Country. And of course if I double click on that to look at the details it's enforce referential integrity without cascade delete.

So that is one half of the job done. Let's now do the same from Trip to Trip Country.

This one is a little bit trickier. So I'm going to go back to Trip Country. I click in Trip ID and again I'm going to go for Lookup Wizard. And again I want to get the lookup field to get the values from another table or query so I'm going to click on Next. The table that contains the values that I want to lookup from is the Trip table and click on Next. And if I follow the pattern of the previous couple of cases I'd copy one of the available fields over.

Now the field that's going to be the basis of the relationship is the ID field, the ID field matching the Trip ID in the Trip Country record. So I'm definitely going to need that field. But just showing the IDs will be a little bit problematic because I'll be choosing from numbers. So it's not very meaningful. For example, I might not be able to remember what each number is in terms of a trip name. so what I'm going to do is I'm going to display the code and the trip name as well. Now I'm still only going to store the ID in the Trip Country record as the basis for the relationship but displaying the code and the trip name as well will make it easier for people to identify the trip.

So with all of those three fields to display let's click on Next. Now how would I like this list sorted? Well I can sort it on any of the fields that are being displayed. But I think I'm going to sort it on code. Now note that I have the option of sorting on up to four fields but I only really need to sort on the code on this occasion. And click on Next.

Now you can see here I have Hide Key Column selected. Now you could hide the Key column if you wanted to but on this occasion I'm going to display it. This is the ID that's going to be stored in the Trip Country record. But I'm probably going to want to do a little bit of rearranging here. I certainly don't need this ID column as wide as it is so I'm going to drag that in. I'm going to drag the Code column in a little bit too and I'm going to drag the trip name out, like so. I'm going to click on Next.

Now when you select a row in the Lookup field you can store a value for that row in your database. Now which of those three is going to be the value that I store? Well of course as we've mentioned a couple of times it's the ID that I'm going to store. So that's selected. I'm going to click Next.

Now do I want to enable data integrity? I do. Now do I want to cascade delete or restrict delete? Well I want to restrict delete. And click on Finish.

Now with a bit of luck my relationship should have been created. So let's go to the Relationships window and I can see that it hasn't. So if you remember that little hack that we have. We jump

up to Design, we say All Relationships and there you can see that relationship between tblTrip and tblTripCountry has been created.

And just to make sure that everything is okay let's double click to open that up and yep I can see ID, Trip ID, and enforce referential integrity.

So let's jump back to the Trip Country table and let's open this in Datasheet view. Now the first thing we need to do is choose a trip. Now, if I click on the dropdown there I get a list of IDs, a list of codes, and a list of trip names. And this makes it much easier for me to choose the trip. So let's go through and select a trip. So I'm going to do Grand Canyon Family Rafting Adventure. Note that the trip ID, this is what is being stored, and then the country is U.S.A. Let's click underneath and do another one. So let's do Iconic Italy for example. And the country is Italy. So as you can see by using more than one field I make it possible to do a link between numeric fields and text fields.

So that finally brings us to Exercise 03. Now I've provided you with a list in the exercises folder with information about the 50 movies. It's called the Movie Rental Movie Info.txt file. And although it's not in a format that is readably suitable for you to import into Access it does list the genre for each of the 50 movies. So for Shawshank Redemption the genre is Crime, Drama. For The Godfather that's also Crime, Drama. Schindler's List we have Drama, Biopic, History. So on and so forth.

So what I'd like you to do is to set up a genre table and then a link from Movie to Genre. I'd then like you to set up some data, just data for two or three movies is fine. Of course if you are enjoying yourself and you want to set up more of them then please feel free to do that. But I would like your setup to work using the features that we've looked at in this section.

So if you look at my answer to this exercise, Exercise 03, if you open up the Movie Genre table I have actually entered all of the movies and the genres in there. But if you click say in this row in the Movie Genre table you can see that it's the IDs and the movie titles being displayed. And the movies are sorted into alphabetical sequence of title. And when I'm selecting one of the genres for one of these records, again if we click the dropdown you can see that they've been sorted alphabetically.

So I'd like you to do the equivalent of that for Exercise 03 and I will see you in the next section.

Section 11 – Forms

Video: Creating a Form

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to take a look at creating our first form. And we've made a pretty good start on creating the Esprit de Tour database and also the Night Movies Rental database, but next we're going to look at the use of forms to not only protect the database but to enable people to do more complex tasks within the database. So essentially we're going to start to build forms that are focused on what people need to. And forms in general are the way that most users will interact with the database.

So far we've been using many tools that are really more used by designers and developers rather than tools that end users would use. So we're going to start out by just building a very simple form using the simplest approach. And really the objective of this module is to really get you used to the idea of looking at form properties. So, it might be that I want to build a straightforward form to perform a task. For example a form to maintain the list of countries in the Esprit de Tour database.

So the first thing I'm going to do is from my Navigation pane is just select the Country table. I'm then going to go up to the Create tab and you'll see in the middle here we have a Forms group with many, many different options in there. We have a Form button which will allow us to create a form, we have a Form Design button which will allow us to create a new blank form in Design view, we then have just a blank form with no controls or formatting, we have a Form Wizard. Now we've looked at a couple of wizards so far in this course. I'm a big fan of those. And this is what we're actually going to use in this first example. We then have a Navigation pane. So that allows you to create a form that allows people to browse to different forms and reports. And then we have a More Forms dropdown which gives us lots of different types of forms that we can use. And we will be exploring some of these as we go through the course. Now in this example, as I mentioned, I'm going to select Form Wizard.

So the first thing that Form Wizard does is it looks at the table that we have selected, so in this case tblCountry, and it makes a list of all the fields within that table. And if you remember we only have one field in there and that is the Country field. And what it basically says is these are the available fields, so in this case just one of them. Which ones would you like on the form? Now it's worth noting that if you are designing a form for someone to perform a specific task you may not need all of the fields to be available on the form. So the first thing you really need to do is to determine which fields the user needs access to. Now in this case we only have one field so I'm just going to add that one field by clicking on the right facing arrow in the middle there, which will add the Country field over into the Selected Fields area. And of course if I wanted to move that back to available fields I could use these arrows at the bottom which will move it back on to the left hand side. And I'm going to click on Next.

Now the Form Wizard is asking us to select a layout and this can be a little bit confusing when you first see it as it's not really apparent that the first and last options are both layouts where you only see one record on this form at a time. So in the Columnar layout however many fields there are you will see them laid out in columns. With Justified instead of having columns you basically have the fields in the record spread out across the page. And with Tabular and Datasheet you are basically seeing a scrolling list of records and in each row you see the fields of the record. So I'm going to choose Tabular for my example.

I'm going to click on Next and we now need to give the form a name. Now I'm going to stick with my naming convention. So we've been adding tbl on the form for tables. So when I'm using forms the prefix I'm going to use is FRM. You can then choose how you want to open the form or you can modify the forms design. So I could open or modify. Now in this case we're just going to open the form. And I'm going to click Finish. And there is my form. So I just want you to note the Tabular layout.

I also want you to note that in the Navigation pane on the left now I have a new category of forms. And this is the type of form that is highly customizable. However first let's talk about the data. Each row represents one of the countries in the Country table. So if I wanted to delete a country, for example U.S.A., I can select it and just press the Delete key on my keyboard. Alternatively I could go up to the Home tab and in the Records group I have a Delete button just there and I could choose to Delete Record.

Now let me just try and delete it and you'll see that I get an error message. So it says, The record cannot be deleted or changed because the table tblTripCountry includes related records. So that is that referential integrity coming into play. So I'm going to close that.

Now if I wanted to edit this form, so maybe I wanted to change the name of Maldives to The Maldives. So let's just jump in there and add the word The. You can see that I don't get any integrity messages popping up. So editing these is absolutely fine. Now I'm actually just going to delete that back out again.

And if I wanted to insert a new country into this list, inserts happen right at the bottom. So you can see I have a little blank field just there. So I can click in there and add a new country of Peru. And when I've made a change, in general I like to make sure that that's all saved. So I'm going to jump back up to the Home ribbon and in the Records group just click my Save button.

Now note that these countries are in alphabetical order but now that we've added Peru it hasn't reorganized itself. So these are no longer in sequence. And I'm going to show you how you can get around that a bit later on in this module.

So this is the basic approach for data maintenance in a form. So now we're going to go into design of the form. So on the Form tab I'm going to right click and I'm going to go into Design view. Now this form currently has three sections. You can see there we have a form header

which also includes that country title, we then have a detail section and this is where all of the countries are listed, and then finally we have a form footer. And at the moment there is no footer on this form.

Now I'm going to make one small change here to the header and I am going to cover this a little bit more later on but you can see here that the header gets a default content. So it's just picking up Form Country Tabular, which is what I named this particular form. But I can go in and change that. So I'm just going to delete that out and change it to Countries We Visit.

It's also worth noting that when I'm editing there is an orange border around where I'm typing. So if I select the Country field you'll see that I then get that orange border which means that I'm editing that field. And if I click up here in the Tools group on the Property sheet you can now see all of the properties for the selected field. And you can see in here there are loads and loads of properties. And we're certainly not going to cover all of these but we are going to take a look at a few of them.

So let's start with the top one which says Name. And the field is called the Country field. So that's fairly straightforward. What is the source? Well it says here that the source is Country, which it is in this form. And it's the Country field in the tblCountry table record. What's the format? Well currently the format is blank. Now there is a default for format which is based on the fact that this type of field is a text box. So if it's blank in there it usually means that it is a text box as that is the default. So essentially we have a text box on a form, its name is Country and it's control source is Country and it has a blank format. Let's go down these properties and just go to font size. And you can see currently there I have a font size of 11 in action. So I'm just going to change that to, let's change it to 20. And you can see immediately that that's reflected in our form design. Now if I go back to Form view, so I'm going to right click and go to Form view, you can see that it's increased that font size but you can also see that it's now kind of, I can't really see the names of those countries so I'm going to need to make a little bit of a change. So I'm going to jump back into Design view and I'm just going to drag that down a little bit and just make some adjustments to the size of this box. There we go. Now let me just double check that by right clicking and going back into Form view and I can see that those look a lot better now. So hopefully that gives you more of an idea of the types of things that you can do when designing forms. Now I can see in here there is one correction that I need to make in South Africa. I just need to change that to a capital A and I'm going to click Save.

Now I'm going to jump back into Design view one more time and note that the Country field is still selected. Now if we right click on that field I want you to notice at the bottom, so properties is currently open. That's the property sheet that we have on the righthand side. But I also want you to note that we have form properties down here as well. So let's click on that and now in our pane we get the properties for the entire form as opposed to just the properties for the particular field that we had selected. And that is one of the most important things when you're using forms is just making sure that you have the right object selected.

So let's take a look at some of these fields. Right at the top we have record source and it says tblCountry. And that means that the records here are coming from the Country table. I'm going to quickly jump across to this Data tab and you can see that one of the properties here is Order By. Now what I'm going to do is I'm going to say Order by country. And that means that the entries on the form will be ordered by the country field in the record. So let's see how that affects our form. I'm going to right click and go back to Form view and you can see that Peru is now in the correct sequence. So everything has been reordered into alphabetical order. So whilst Peru is now in the correct sequence it's still at the end of the records in the table.

I'm going to add another country at the bottom here. So that is Canada. And to get this to update by my sort order that I set I'm going to go up to the Home ribbon and just select Refresh. And you can now see that Canada has jumped up into the correct position.

So that is it. That is your introduction to creating a form. We're going to expand on this idea over the next few modules so please join me for that.

Video: Modifying a Form

Deb: Hello again and welcome back to our course on Access 2019. In the preceding sections we started taking a look at how we could create forms and in this module we're going to continue looking at the form we made for maintaining the list of countries in the Esprit de Tour database.

Now I've returned the size of the country field to its former size of 11 points and I'm going to jump back into Design view. And what I want to do is I want to look at the form properties. So I'm going to select that from the list and in the Form Properties property sheet you'll see that one of the properties that we have is Default view and currently it says Continuous Forms. Now I'm actually going to change this to Single Form and I'm going to return to Form view.

Now in Form view I no longer have that continuous view with all of the fields in the form. Now in Single view each record occupies one form. And you can see that I have navigation buttons at the bottom. So currently it says I'm on record 1 of 16, which is Antarctica. And I can use my arrows to go to the next record, which is Argentina and I can scroll through my records that way. I can also jump all the way to the end to Zimbabwe and I could also jump back to the beginning of Antarctica. I could also if I wanted to add a new blank record from here as well.

Now in Single Form view we can do all of the normal functions. So if I wanted to go in and make any changes to this record I can click in the Country field where it says Antarctica and make the relevant changes. There's nothing different about this.

If I wanted to delete the record I could select the record and you'll note that the highlight runs all the way down the page. And I could go up to my Home ribbon and select Delete Record in the same way or alternatively I could press the Delete key on my keyboard.

So the point I'm trying to get across here is that Single Form view works pretty much the same. You can view, you can insert, you can modify, and you can delete records.

Some other things that you can do is supposing I wanted to filter. I can go up to my Filter button, I could go down to my Text Filters, and I might want to say I want to see all the records that begin with C, and click on OK. And you can see now that I have four records, the first one being Canada, and I can scroll through. We have Costa Rica, Croatia, and Cuba. And you can now see that I have that filtered indicator in the bottom bar. So if I wanted to remove the filter I can just click it and my list is now again unfiltered.

I can also search for records. So you can see I have a Search field down here. So if I wanted to search for example for Africa you can see it's taken me straight to the first record where it finds that word.

So in terms of finding my way around I can use those controls on the Home tab when I'm in Continuous Form view or Single Form view.

Now one thing I want to point out to you is just going back to this Views group at the top here. You can see currently I have three options, Form view which is the one that I'm currently in, Layout view, and Design view. And obviously I can switch between these views just by selecting them and we are going to focus a little bit more on Layout view in the next few modules.

Now I'm just going to jump back into Design view and we're going to continue taking a look at this property sheet over on the righthand side.

Now this option here, Allow Datasheet view, is currently set to No. Now I'm actually going to change this to Yes. So basically what we're saying here is that we're going to allow users to also work in Datasheet view. Now that I've changed that if I click back on the View button you'll see that I now have a fourth option in there which will allow me to switch to Datasheet view. Now bear in mind that data might be selected from a number of tables, which is one of the reasons it's not the same as Datasheet view for a table. It's the data that's selected for this form which may be selected from a number of different tables. And it also may be sorted in a specific way as it is here where we've specified the sort order as country.

So hopefully that gives you a good idea as to how to work in Single Form view and also how to utilize some more of those options.

We're going to talk about forms more over the next few sections but before we do I'd like you to do Exercise 04 where I'm going to get you to create your own form, so please join me for that.

Video: Practice Exercise 04

Deb: Hello again and welcome back to our course on Access 2019. It's now time for me to set you Exercise 04. And all I really need you to do is to create a Genre Maintenance form for the Night Movies database.

And here is my Genre Maintenance form and as you can see Exercise 04 that version contains my solution. And you can find that in the exercises folder.

Now note in the Navigation pane you'll see the name of the form, so frmGenreMaintenance, and I just want you to note a few things about this form.

It's default is Single form and Datasheet view is allowed. So if I go up to my View dropdown you can see that I can see Datasheet view. The genre within the maintenance form data set is sorted by genre name. And in addition to producing a working form I've also selected a theme for the form. Now I haven't shown you how to do this but it might be good for you to have a little experiment and see if you can work it out. So when you're in Design view see if you can select the theme of Slice.

Also for the header I want you to change the style of the header so it has no border but it's shadowed. And I want you to make the single control in the form, so the one that holds the genre itself, make that a little bit taller so that all of the text fits in.

I want you to also make sure that that has a shadow effect as well. And a shadow just for your note is considered to be a special effect.

So I want you to try and give that a go. There are a few things in there which we haven't covered yet but don't worry too much if you get a little bit stuck. We are going to be covering those things later on. I just want you to have a real explore around and see if you can work out how to do it.

That's it for Exercise 04. I will see you in the next module.

Video: Forms in Layout View

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to be taking a deeper look at Layout view and we're going to start out by creating a new form.

So if you remember in the preceding section we created a Country Maintenance form and you can see here in the Navigation pane that that's still called Country Tabular. Now I'm actually going to rename this. So I'm going to right click and I'm going to select Rename and I'm just going to change that to Country Maintenance. So what we're going to do is to create a form to maintain trip information. And that information really is the main body of data in the Esprit de Tour database, but we're going to create it in a slightly different way this time. So I'm going to select the Trip table, I'm going to go up to the Create tab and instead of using the Form Wizard like we did previously I'm just going to click on Form. And what Access will do is create a form and in this case it's a much more complex form than what we had previously because we have lots of different fields as opposed to just one in the previous module. And in this section we're going to work on this form in Layout view.

Now we can confirm that we're in Layout view on the status bar. So in the bottom righthand corner you can see that if I hover over I have Layout view selected because it's highlighted in gray. I could also confirm that by clicking on the View dropdown and I can see that Layout view is highlighted. And you can also see that I have a Form Layout Tools contextual ribbon with three subtabs, Design, Arrange and Format. And really Layout view is a type of design view and we're going to use this Layout view to do some design work. And as we go through I will point out the difference between Layout and Design view. So primarily what we're looking at here is the layout of the form.

Now with this particular form it's a single form type form. So let me use the View button on the Design ribbon to switch into Form view and I can use the navigation buttons at the bottom of the table to step through the different records, as we saw before.

Now the main difference between this form and the one earlier on is that this one has all of the fields that are in the Trip table and they're arranged by default in tabular style. So in Form view if I wanted to modify the activity level I could utilize the dropdown. Now as I haven't replaced Country with the new Trip Country facility that we created using relationships earlier I still have the old style country information based on a value list. And if you remember initially the only value that we had was U.S.A. If I wanted to go in and update the description I can just click in the field and edit. And the same is actually true for all of these fields. However, this in itself could be quite dangerous. I want you to cast your eyes up to the ID field where we currently have the number four and you really need to think to yourself, "Do you want people to be able to go in and change that number?" Remember ID fields are automatically assigned from within Access. So that might be something that you don't want people to change. And we're going to look at how you would restrict that a little bit later on.

Let's jump back into Layout view and it's worth noting that when Access creates a form it uses a tabular layout. And if I click the plus sign just above and next to the ID field it will select what is in effect a table on this form. Now if you've used other Microsoft products you might be familiar with the concept of a table. You might have created them in Excel or maybe Word. And as with those types of tables you have rows and you have columns. So in this table we have one row for each field in this trip table.

Now just be careful here because there are really two uses of the word Table. So there is the table as in the Trip table and that's essentially a data table in Access. And the table as in the layout table, which is what you can currently see highlighted in orange here. So just be aware that that word Table kind of has two different meanings, depending on the context.

Now each row in this table holds a field from the Trip data table. And each row has a label and a container for that piece of data. So you can see the labels would be considered ID, Code, Trip Name, Activity Level, so on and so forth and the values are in the next column. Now creating a form in this way gives us a very tidy or neat looking form. Everything is nicely arranged in rows and columns. However there is a downside. Generally speaking creating a table in this way is a little bit wasteful of space. If you just take a look in that first field, the ID field, look at the amount of space that you have to the right of the number four. It's not the most efficient use of space. So let's take a look at how we might combat that by changing the layout.

So suppose that I think there is far too much space wasted by ID and Code. So what I'm going to do is I'm going to put both of them on the same row. So one way of doing this is to first click in the ID field, make sure that's selected with an orange border, hold down Control and click on its label so that we both of those selected. Now I'm going to press the Delete key and I've essentially deleted that row in the table. Now again click somewhere within and what I'm going to do is insert a row above the selected row. So I'm going to go to my Arrange tab and I'm going to select Insert Above. So now we have a new empty row at the top. I'm going to click within that row and I'm going to click on Split Horizontally.

Now I'm going to put ID in the selected cell. So in order to do that I need to click on the Design tab and select this option, Add Existing Fields. So now what happens is that you see a panel with a list of all of the available fields from the Trip table. So all I need to do is select ID and drag and drop it to where I want it to be. So you can now see that what that's done, so you can see that I have the ID number and the ID label in for the first two cells. I'm now going to grab Code and I'm going to drag it into the remaining cell. And it actually splits that into two cells. So it's got the code label in the left and the data on the right.

So now that I have that I essentially don't need this second row because it would be a duplication of information. So I'm going to select my second row and I'm going to press the Delete key. So now I've got a better use of space by putting the ID and the code together on the first row. And

I've very quickly been able to make a change to the layout of my form. So this is really one of the best things about Layout view is that it makes it very easy to keep things nicely lined up.

Now it's worth noting that I'm not restricted to just controlling the layout. I'm just going to close this field list pane down. Now you can see here that these are a little on the narrow side. I can't quite see all of my text so I'm just going to make those a little bit bigger to accommodate that and I'm going to click on Property Sheet.

So currently I'm viewing the properties for whichever item I have selected. So in this case it's the value for the field. And you can see there in the Property Sheet it says my selection type is a text box. So for example, if I was to jump to something like Activity Level you can see there it says Selection type combo box because we have that little dropdown there. Now if I was to select Trip Name on the form you can see there that Trip Name is considered a label. And one of the things that can be confusing is that labels can tend to have rather generic names. So you can see here this is called Label 6. So this can make them quite hard to identify. So in general what I like to do is just to rename them. So I'm going to rename Label 6 to Trip Name Label. So that's just going to make it a lot easier for me to locate. You can see it down there now.

Also with this caption, by default captions take their name of the associated field. So in this example it's called Trip Name. Now I might just want to put a space in between there because it really, it's just a caption.

Now let me just jump back to ID for a moment because there's another very useful option here under the Data tab. You can see here where it says Enabled we have a value of Yes. And I'm actually going to change this value to No. Now let me go back into Form view and where I have Trip Name I can click in here and I can make changes, the same with Activity Level, Country, Description, but if I try and click in ID I can't click in there. So what we've essentially done is we've really locked that field. We've disabled access to that field. So it means that anybody else who's accessing this form isn't going to be able to change the ID number.

Now another important thing to note here is that if I'm using this form for trip maintenance and I wanted to add a new trip I can use this button down in my navigation area for New Blank Record.

So that's pretty much all I wanted to show you in regards to editing forms in Layout view. I'm going to save this form as Trip Maintenance and I will see you in the next module.

Video: Forms in Design View

Deb: Hello there and welcome back to our course on Access 2019. In this module we're going to continue looking at forms, in particular in Design view. Now in the preceding section we made a Trip Maintenance form and most of the customizing was done in Layout view. Now working Layout view can be quick and you can get good results but if you really want control you need to use Design view.

Now before we jump into that I just want to take a moment to look at one of the other options for creating a form, which will eventually lead us into talking about Design View.

So I'm going to jump up to the Create tab and this time I'm going to select Blank Form. And what I get is pretty much what you would expect. I get a completely blank form.

Now if you look on the righthand side in the field list you'll see that there are no fields listed. So when it comes to adding fields I don't any to choose from at the moment. Now I'm just going to click on Show All Tables and this is going to basically show me all of the tables in my database. So I'm going to expand tblTrip and you can see there now I have the fields available to me from that particular table. So what I'm going to do is I'm going to double click on the Code field and you can see that that's now added it to my form. And it's also added it with a label of code.

Now before I go any further with this I just want to take a moment to highlight something very important. I'm going to jump into Design view for the Trip Maintenance form.

Now in Design view what I'm going to do is I'm going to click on any field, I'm going to right click and I'm going to go down to Form Properties. And you'll see here the very first property is the Record Source, which currently says tblTrip. So what we essentially say here is that the Trip Maintenance form is bound to the Trip table as that is the record source. Now I'm just going to close that form down and I want you to look at the form that we've just created. I'm going to right click and I'm going to go down to Form Properties and you can see something slightly different here. The record source has something different in its field and I'm just going to make this a little bit wider. The record source is instead a query, an SQL query. Now you can't actually see the whole of the query here. Currently it says `Select tblTrip.code`, and if I click in there and use my right arrow, from `tblTrip`, and a semicolon at the end denotes the end of the query. And we're going to cover queries in more detail a little bit later. But what this means is that essentially this form is not bound to a whole table, just to a single field.

So let's just quickly close that properties sheet, let's go back to our Design tab and I'm going to select Add Existing Fields. And we expanded `tblTrip` earlier and you can still see all of those fields there. So I'm going to take `Duration Days` and double click. So we've now added a second field from the same table. Let's now go back in and look at the properties for the form and you can see again that the record source has changed again. So it now says `Select tblTrip.code and`

tblTrip.DurationDays from tblTrip. So it's basically just telling us that we've selected the Code and Duration Days fields from the Trip table.

So you can probably see how this goes. I'm going to close this down once again and just go back to Design and Add Existing Fields. Because we have access to all of our different tables we can mix and match fields from different tables to build up our form. And the important point to take away here is that a form can be bound to a table or to a query.

Now notice that I am currently in Layout view. Let's switch to Design view and I'm going to close down my field list for the time being.

So in Design view those two fields are there and you can see their labels. And I can click on these individually. Now essentially these are still within that tabular structure, which is why they're kind of nicely lined up. Now what would happen if I essentially removed that tabular structure? Well let's try it. Let's go up to Arrange and click on the Remove Layout button. Now when I click on this what I have essentially is free reign to move these around wherever I like so they're not bound within the structure. And I can drag Duration Days down here. And you'll see that when I select something like Duration Days the label goes with it. So you can see here that that tabular structure that we used to have in place is now gone and I have free reign to drag my fields wherever I want them to be. So this gives you a lot more control when you're designing your forms.

Now that is great but it can also mean a lot of extra work for you. Because that alignment has gone if you want things neatly aligned you essentially have to do it yourself. Now there are lots of tools available in Access to help you with this.

Now I want to jump across again to the property sheet and I currently have that Code field selected. And if you look at the format options for this field, so I'm going to click on that tab, there is a whole set that tells you how wide and how high the control is. And you can change the color, the background colors, font, all of those kinds of things. So lots of different properties that you can adjust.

So let's go in and make a quick change. So here where it says Top, this is going to control where the field is placed. So I'm going to say I'm going to change that from half an inch to one inch and you'll see when I click away you'll see that move. And if I want to do the same for the code label I can click on that and I can also change the top there to one inch.

So I could also control the alignment options for my fields as well. So if I select everything on here and go up to my Arrange tab I have an Alignment dropdown. So I can select to align to top if I wanted to and bring both of those in line. Again alignment options might be something that you're used to using in other applications, like PowerPoint or Word. They work pretty much the same in Access as well.

So that's just a quick run through of some of the formatting or stylistic changes you can make. I'm going to close down the property sheet and I'm actually going to close down this form. And I'm going to say No to saving the changes.

Now once again I'm going to create a brand new form. So I'm going to go up Create and this time we're going to use the Form Design option. Now this gives me an empty form and the empty form has a default size. And it's worth noting that there is no header or footer and this might be something that we want to add later. Now I'm going to jump into the property sheet again and I'm going to select all. And you'll see at the top there is currently no record source. So this form is not bound to anything at the moment.

Now I'm going to click the dropdown and I'm going to select the Trip table. I'm then going to select Add Existing Fields. And you can see there all of the fields available in the Trip table. Now when we've added these fields before I've been double clicking. You can also drag these fields in order to add them to your form. So I'm going to grab Code and we're just going to drop that on. I'm going to take Trip Name and I'm also going to take Activity Level. Now having done that I would then move the fields and labels around. I might want to resize them, move the labels, check the properties, and I also might want to disable access as we did previously so that those fields cannot be edited. So let's add a few more. Let's add Duration Days, Price Minimum and Price Maximum. Now having added those fields to the form what I would normally do is go back and look in Form view just to see what that looks like. Now I can see that that doesn't look too great at the moment. I haven't been too careful where I'm placing these fields and I would say initially don't worry too much about how the form looks. You want to make sure that you have the information on there and all of the properties are set correctly. And then normally at the end I would really pay more attention to the exact placement of these fields and then also the styling of the form which we'll look at a little bit later. But in general I would do all of that at the end.

So my advice here is to roughly get the design correct first and save the detail for later.

Now I'm going to close this form. I'm going to click on Close and I'm going to save changes and we're going to call this one frmTripDesign and click on OK. And there we go. That's it for this module. I will see you in the next one.

Video: Form Design

Deb: Hello again and welcome back to our course on Access 2019. In the preceding module we developed a basic form in Design view and in this module we're going to go through some other aspects of form design. And this will offer a good starting point for the maintenance of trip information for Esprit de Tour staff as they maintain the details of their trips.

Now the first thing I want to ensure is that I have all of the fields that I need on this form. So I'm going to jump back up to that Add Existing Fields button and you can see that I haven't yet added the Country field and that's because I'm going to show the countries visited but I'm going to use the new Trip Country facility. So we're going to come back to that.

So apart from that the only missing field is the ID field. So I'm just going to grab that and I'm going to drag it and drop it onto the form. And the other field it looks like I don't have is Description so I'm going to grab that as well and just drop that onto my form.

Now my fields are a little bit all over the place. This isn't a particularly attractive looking form at the moment. So in a moment I'm going to move these fields around into the positions that I want them to appear in, but just before I do that just one other thing. When we're dealing with maintenance forms you don't always need to show the name of a field. So you don't always need to have the field label visible. Not having it visible doesn't impair the operation of the form at all. So I just wanted you to be aware of that. You don't necessarily have to have this label there.

Now I'm going to move these fields around in a moment into a logical sequence and I'm also going to rename the label fields and change the words in the labels. So I'm going to close my field list, I'm going to open up my property sheet and I'm going to do all of those things. So join me in a couple of moments when I've done that.

So there we go. I've rearranged some of the fields in my form. I've also done some things like I've removed the label for ID and Code and I've also renamed some of these other labels just to make them a little bit easier to understand.

So the next thing to do is to work out how big each field needs to be. So what I'm going to do is I'm going to open Form view and I can look at my form and I can kind of get an idea as to which fields could be a little bit narrower or which fields need to be slightly bigger. So I can see here that ID could probably do with being much narrower and also the Code field could probably be a bit narrower as well. I'm going to want to widen out that Trip name field so I can see more of the trip name. Now I'm not going to approach this in a scientific manner. I'm really just going to adjust the size of the fields and then run through the existing data to make sure everything fits.

So let's go back into Design view and I'm just going to grab this and I'm going to make the ID field a little bit smaller. I'm also going to make that Code field a bit smaller and I'm going to make Trip Name quite a bit wider. And while I'm here I might as well make Description a bit

wider as well, like so. Now let's see how that looks. Let's right click and go into Form view. Yeah, I can see that looks a little bit better but there's a couple of other changes I want to make. So I could do with making these even smaller and Duration Days, and I might want to add a bit more height to the description. So let's just do those changes as well. So make ID even smaller, Code can do with going in a bit. I'm going to make Duration Days smaller and I'm going to give the Description a bit more vertical room. Let's do one final check. There we go. So I'm reasonably happy with that. You could spend all day doing this but I'm reasonably happy that that looks not too bad as it is.

So the next thing I want to look at is alignment. Now I've done a fairly decent job of aligning up these fields just by eye but we can get a little bit more granular with regards to alignment. So let's jump back into Design view. Now what I want to do is I want to align all of the controls in the top row. So I'm going to select all of the fields by holding down my Control key. I'm going to go up to the Arrange tab. I'm going to select Align and I'm going to say align to top. And what that will do is it will align all of the fields to whichever control is at the top. And I think mine were pretty much aligned anyway so not too much of movement there. I'm going to click away to deselect.

So now I'm going to select Trip Name. We're going to say Duration, Description and Price Max and I'm going to align those to the right. So again that just looks a little bit neater. And I might actually want to have this description label aligned over this side. So I'm going to disconnect it from the actual value field. I'm then going to select ID, Activity Level, Description, and Price Min, go to Align and I'm going to say align left. So let's switch to Form view and see what this now looks like. There we go. It's actually looking pretty nice.

Now one thing to notice here is that the Code is currently selected. So if I was a user using this form and I press my Tab key it goes to Trip Name, Activity Level, Duration and it jumps over Description, goes to Price Minimum, Price Max and then it comes round to the unique ID. Now the order in which you can tab through these fields is something you can control. So let me show you where you can find that.

Let's go back into Design view. We're going to go to the Design tab and you can see here you have a button for Tab Order. And this shows you the order in which a user can tab through the fields. So Code is at the top so it's always going to start on the Code field. Now ordinarily you probably want users to start at the first field in your form, which in this case is ID. So I might want to change this order by just dragging and dropping ID up to the top, like so. Alternatively I have a button here called Auto Order. So if I select that that's going to order all of my fields based on the positions that I have them in the form. So let me see, we've got ID, Code, Trip Name, Activity Level, Duration Days, Description, Price Min, Price Max. So that is the order that I want people to be able to tab through the fields in so I'm going to click on OK. And now if we go back to Form view you can see that the ID is selected this time.

Now the final thing I want to show you here is just how to add a header and footer into this form. So again on the Design tab you'll see you have a group that says Header and Footer and you can choose to add a logo, a title or a date and time. So I'm going to click on Title. Now the default title is just the name of the form. So I'm going to change that title. And I'm also going to change the alignment of this text in my header. So currently it's aligned to the left but because I have this field selected with the orange border, if you look over at the property sheet you'll see about halfway down, and we could make this a bit easier for ourselves by clicking on the Format tab, you can see halfway down we have a Text Align option which is currently set to left. So I'm going to change that to Center to move that title across.

Now I'm also going to insert a date and time into my header and footer. Now I've got both options selected, so include date and include time. I'm not actually going to include time for this form. That is a little bit of overkill. I'm just going to have the date. And I'm going to select the second option here of the 22nd of October 2019 and I'm going to click on OK. And I don't know if you can see it. Very small in the top corner here we have a form field. So here we have equals Date. And once we're in this Design view you're kind of going to be able to see the coding that sits behind this date. When we switch to view the actual form you will see the actual date.

So don't worry too much about that. But I actually don't want my date in my header. I want it in my footer. So I'm going to grab the field and I'm just going to do a cut. So a Control-X on my keyboard. I'm going to scroll down to the form footer and I'm going to do a Control-V to paste that in. So now I have that pasted into my footer and I actually want the date to display over here on the righthand side and I can simply do that just by stretching this field out a little bit. So I'm just going to stretch that all the way across and there we go. And if I check my property sheet over here I can see that I have my text aligned to the right.

So let's now see how all of that looks by jumping into Form view. And there we go. That's looking pretty good. I've got my center title at the top, I've got my aligned fields and I have my date showing at the bottom there.

So we've covered quite a few aspects of form design and there are so many more that I haven't covered and we will cover some of these things as we go through the course, like themes and formatting. But for now I'm going to close my form, I'm going to save the changes, and I'm actually going to make that my Trip Maintenance form. So the one that's currently called Trip Maintenance I'm going to rename. Now I tend to have a naming convention and if it's an old copy of something I generally just put an underscore and then Old on the end. I'm then going to rename my trip design form to Trip Maintenance. And that's now my working Trip Maintenance form.

That's the end of this module. I will see you in the next one.

Video: Practice Exercise 05

Deb: Hello again and welcome back to our course on Access 2019. It's now time for Exercise 05 and all I need you to do is to create a movie maintenance form.

On this form I want you to include the title, directors, year of release, and run time but I don't want you to add the genre at the moment. We'll get onto that later on.

Now you might display the ID but make sure that the person maintaining the list cannot access the ID.

Now you can see that I've done some work on the styling and it's fairly similar to the styling which we applied to the genre maintenance form. I want you to make sure that the tab order is correct. And note that I have also included the date and time on the bottom of the form in the center. Now some of these fields with regards to sort of the placement of the title and the placement of the footer may look a little bit out of whack at the moment but we're definitely going to deal with that later on.

So you should finish up with an answer that is similar to mine.

Also note that I have changed some of the way that the label controls are displayed and that is kind of personal preference but if you want to do that then please feel free to do that as well.

That's all I need you to do in Exercise 05. See how you go with that and I will see you in the next module.

Section 12 - Subforms

Video: Setting Up Subforms – Part 1

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to start to take a look at Subforms.

Now the idea of a subform is that it's a form within a form. And we generally use a subform to show repeated values in a form. So for example, let's open up a new trip maintenance form and remember we haven't include the country or countries on this form. So what we're going to do is we're going to add a subform and each row can be one of the countries that the trip visits.

Now people go about adding subforms in a few different ways. The way that I tend to do it is that I generally build the subform first and then I add it to my main form, so that's the way that I'm going to do it on this occasion just to keep things consistent.

So the first thing I'm going to do is I'm just going to close down this Trip Maintenance form. I know we've just opened it but we're going to come back to that in a moment. And I'm going to go and create a new form. So let's go to the Create tab and I'm going to select Form Design. Now this form is going to contain a list of the countries visited on a trip. And this form in this instance is going to be bound to the Trip Country table. So that's really the first job that we have to do. So I'm going to in and I'm going to open up the property sheet and I'm going to make sure that I have the form selected at the top here. I'm going to jump across to this Data tab and I'm going to make sure that the record source is Trip Country. Now I'm going to use all of the fields from Trip Country so let's go to Add Existing Fields and you can see we have ID, Trip ID, and Country. So let's go through and add each of these to our form. So I'm going to double click on ID, double click the Trip ID, double click on Country. I'm then going to go in and I'm just going to remove these field labels just by clicking on them and pressing the Delete key on my keyboard. I'm then just going to do a little bit of rearranging. So I'm going to take this ID field, I'm going to move it up here, and I'm also going to make that a bit smaller because I don't need too much room for that one. Let's take Trip ID and move that up. Maybe want to make that slightly smaller. And Country just there. And just to make sure that they're all perfectly in line I'm going to hold down my Control key, select them all, I'm going to go to my Arrange tab, the Align dropdown and I'm just going to say align to top like so.

Now something else I might want to do just to make this look a little bit nicer is just to resize the entire form. I don't really need all this space if these are the only three fields I have on my form. So I can choose to make this a little bit smaller like so.

Okay. So let's jump back to the Design ribbon and just go back to the property sheet and make sure that you have Form selected in the top field there and jump back to the Format tab. And it's worth noting the default view here is not going to be Single Form. It's going to be Datasheet. Do

I allow Form view? Well in this case no. Do I allow Datasheet view? Yes. Allow Layout view? We're going to say No for that as well. I'm going to close down my property sheet and I'm going to close down my form. And of course it's going to ask me if I want to save changes so I'm going to say Yes and I now need to give my form a name. And in this case I'm going to give the form a name that reflects what the form shows. So I'm going to say frmTripCountry and click on OK. And you should see now that that's been added on the left hand side in my Navigation pane. Underneath Forms I now have frmTripCountry.

So now we're going to jump back to that Trip Maintenance form and we're going to go into Design view.

So now we're in the Trip Maintenance form what I'm going to do is I'm just going to drag the form a little bit over to the right to give us some room in there and then what I'm going to do is I'm going to insert a control on the form. Now we have dealt with controls previously. So if you remember back we've inserted controls by adding fields to the form. And whenever you add a field you get whatever the specified control for that field is. So we're adding a subform. Now the control that we need to add for the subform you'll find it up here in this Controls group. So let's click on the More arrow and it's this one just here. When you hover it it will say Subform/Subreport. So let's click that. So now I've selected that I'm just going to draw it on the screen. Now don't worry too much about the size or the position. We're going to sort that all out later but for the time being just draw a big textbox like that. And what you'll see is that what will automatically pop up is the Subform Wizard.

Now remember every time a wizard pops up this is there to help you and it makes it super simple for me to define which form is controlling this subform. So I'm going to say Use an existing form and I'm going to select Trip Country and click Next.

Now in this next stage Access is asking us would we like to define which fields link your main form to this subform yourself or choose from the list below? So what's actually going on here is that what Access does is it looks at the form in Trip Maintenance and sees that that is bound to the Trip table. It then looks at the Trip Country subform which is what we've just selected and it can see that that is bound to the Trip Country table. And it says what must the link between these two things be? How are they connected? So it's attempting to identify a master field and a child field which it thinks is the basis for the relationship between these two forms. And you can see it's given me a list there of things that I could link between the two.

Alternatively I could define my own. So in this instance I'm actually going to define my own. And what I'm going to say is that the ID field links to the Trip ID in the subform. So that's the ID field from Trip Maintenance links to the Trip ID in my subform. Now it's worth noting that you can go back in and change these in the property sheet if you want to afterwards but this is a good starting point. Let's click Next. You can see here it's picked up the name of my subform, so frmTripCountry, and I'm going to click Finish. And there we go.

Now I'm going to click on the property sheet and I'm going to click on the Data tab and this is where you can see where the source object is, the linked master field, the link child field. So if you want to go in and change these you're perfectly able to do that after the fact.

Alternatively you didn't have to use that wizard at all. If you just click Cancel you could have just come into this property sheet and manually defined everything yourself. And what you will find in there is that Access normally does a pretty good job of working out itself what you want to link together. So a lot of the time you might come into here and find that it's already added this master and child field for you. But again as I said, you could go in and change it if it does get it a little bit wrong.

So I'm just going to close down my property sheet and I'm just going to make this box a little bit taller because we can't quite see all of those fields that we've added.

Now one little thing that I'm going to change here is I can see that it's named it frmTripCountry because that's what we selected in the wizard. Now I'm just going to change that by jumping up to the property sheet. I'm going to go to the All tab and I'm going to change the name of this little subform. I'm going to call it Country Subform. It just makes it a little bit easier to identify.

So now that we've done that let's close down our property sheet and let's try opening our form. I'm going to go into Form view and one thing I can already see here is that my little box that I drew isn't quite wide enough and it looks like we need to make some design changes. So this Trip field is way too large and I can't see the rest of the information. So again if you find that there are things that you need to change you can just jump back into Design view and I might want to make my form a little bit wider. I'm going to make this Trip ID field a lot smaller. I'm going to move this along. And I'm going to drag this out. And then I'm going to jump back into Form view and I can see that that looks a little bit better. We can at least see the country field now.

Now let's see what happens when we start to step through the record. So at the moment we're on the Grand Canyon Family Rafting Adventure and using my buttons at the bottom to move through the records, I'm going to move to the next record, Iconic Italy, Family Safari, no country assigned there yet. So of course we haven't set up the countries for most of the trips but the ones that we have appear to be working okay. So if we go backwards again we can see Italy in there and the U.S.A. in there.

So if I go to the table Trip Country you can see there what I mean. Those are the only two countries that I currently have set up which is why it's pulling through the information for those two and not the other countries.

So what I could do is I could set up the rest of the countries in the Trip Country table but why don't we try our new form? So let's jump back to Trip Maintenance and let's just move through to, let's go to record nine, Croatia. So I'm going to click in the Country field, click the

dropdown, select Croatia and that's been accepted. So that looks fine. So let's try another one. So let's go forward to the next record. So this is Cuba. I'm going to click and I'm going to select Cuba.

Now I'll just do a couple more. So let's move forward. Now this is one of the trips that goes to two countries. So I'm going to select Maldives and then I can go to the record below and select the other country that this trip goes to. And let's do one more. So this one goes to the U.S.A. Okay let's jump back to the Trip Country table again.

Now notice that when I go back to this table nothing seems to be added in this country field. But if I go up to my ribbon and just do a Refresh All and there you can see that now those countries have been updated. So the form and the subform seem to be working together well.

I'm going to show you one more little thing before we move on to the next module. Now if you look in this subform that we've created we have an ID field and a Trip ID field. Now whilst these are helpful in determining which records to pull out the Trip Country table they're not really useful for end users. So end users who are using this form aren't really required to see these two fields. So what you can do is you can hide them. So I'm going to select the Country field, I'm going to right click and I'm going to say Hide Fields. And I'm going to do the exactly the same for Trip ID. So now we're just left with Country. And if you wanted to just to tidy this up you could stretch out that country field as well just to make it look a little bit neater.

So that is a perfectly reasonable way of setting up a subform. In the next module I want to show you a slightly different approach. So I will see you over there.

Video: Setting Up Subforms – Part 2

Deb: Hello again and welcome back to our course on Access 2019. In the preceding section we added a subform to the Trip Maintenance form and the approach we used is to use a datasheet.

Now with the datasheet as it's configured here a user can add or delete countries from the list of countries visited on a trip but there might be situations where you just want to display the information so that no one can edit it. Now with regards to this Trip Maintenance form we'll need to have both options. So for example, staff using this form need to be able to do things like add countries, delete countries, etcetera, whereas when the information is being displayed to people booking a trip you don't really want them to be able to go in there and make any changes. So in this module I'm going to show you an alternative approach to subforms and also show you how to restrict what people can do with regards to the information in those subforms.

Now I could start again with this subform but it's also possible to change a subform that's already been added. So I'm going to close the Trip Maintenance form and I'm going to open the Trip Country subform in Design view. Now I'm just going to click on the property sheet to open that up.

Now as I mentioned before you don't really need to see the ID and the Trip ID field, however it is important to know that they are there. And even with fields that you can't see the information is still available to access. So for example if you've hidden a field that information is still there.

If we look at our property sheet the record source is the Trip Country table. Our default view is Datasheet. And I'm actually going to change that to Continuous Forms. Then what I'm going to do is I'm going to remove the ID from the form. So let's click on it and press Delete and let's do the same for Trip ID as well, and just press Delete. I'm then going to take my Country field and I'm just going to adjust that very slightly. Let's move it over, let's resize that out a little bit like so and I might want to even bring the bottom of the form up. Now I'm going to close my property sheet and I'm going to close my Trip Country form. I'm going to say Yes to save the changes. And now I'm going to go into Trip Maintenance in Design view. So now I'm just going to tidy this Country field up a little bit. So I'm going to just drag that out a little bit and also drag the actual field out so it takes up a little bit more room. I'm going to move this label up very slightly and I'm going to change the caption to Countries Visited and close down that property sheet. And in fact this looks a little bit too wide for me. Let's move that in a little bit and again I might want to move the whole form in as well. So you can make whichever design changes you'd like to this particular form.

Actually one more thing I'm going to do here is with this label I'm actually going to drag that all the way out. I want this label to be in the middle. So I'm going to drag it out, go to my property sheet, text align. I'm going to say Center. So you can make whatever adjustments you like.

What I'm going to do now is I'm going to right click and jump back into Form view and what you can see is a very different subform. So notice it's no longer a datasheet. So if I wanted to add another country, say Antarctica, I can go there, add it and that works just fine. And I could go through and add other countries if I wanted to. And let's add another one. So let's add Canada. Now also note your little Select buttons at the bottom to move you through your record. So if at any time I wanted to delete a particular record I can just select it, press the Delete key, it will ask me to confirm, and it's gone.

So that's a perfectly good way of doing maintenance on countries without seeing the IDs. Now what I'm going to do next is to add a whole bunch of countries to this trip.

So let's go in and add a couple more. Let's do Canada and let's also add Costa Rica. Now it's worth noting that not all of these countries does this trip run to but just as an example as soon as the list of countries that you've added gets longer than the space provided you will see a scrollbar come up at the side. So just remember that you have that there if you want to continue adding more countries.

Now from a maintenance point of view this probably looks like it's going to work absolutely fine but what am I going to do if all I want to do is display a list of countries. So let's close out of the Trip Maintenance form and look at the Trip Country subform in Design view. And I'm going to go straight into bringing up that property sheet, our old favorite, and I'm going to click on the All button so I can see all of those different properties.

And the first one I want to look at is about halfway down where it says Navigation buttons. So what I'm going to do is I'm going to change that from Yes to No. I'm now going to scroll down to some of these properties towards the bottom. So here where it says Allow additions I'm going to change that from Yes to No. Allow deletions, No. And Allow edits, we're going to say also No to that. Let's disable record selectors as well. So let's change that to a no. I'm going to close out of my property sheet and close out of my Trip Country and I'm going to say Yes to save the changes. Let's go back to Trip Maintenance. Now when we come to the subform you can see that I can still use my scrollbar and I can click the dropdown and I can still see all of the countries but if I try and change U.S.A. to something like Cuba it doesn't let me. So I've essentially disabled access to changing those fields. So I really have no way of adding or deleting those countries.

Now when you look at this subform you might think to yourself based on what we've just talked about, "Well what is the actual point of having these dropdowns?" So what you might want to do is change these combo boxes to standard text boxes.

So what you've basically seen there is using continuous forms in a way that totally protect the data in the subform.

Now I just want to demonstrate one other useful field. If you consider the country field in the Trip Country table record, if you look down at the field properties and go to the Lookup tab you'll see that it says Display control combo box. Now this is the default. So it is a lookup field so therefore in normal circumstances you're going to give people a list of values that they can look up. But just remember that it doesn't always have to be a combo box. It could be a text box or a list box. So you could change that property just there.

Alternatively if I just close down Trip Country and open up the form Trip Country what I could do is I could right click on this Country field and you'll see that in a menu that pops if I go to Change To I can change it to a text box or a list box. So they're currently the only options I have available for this particular property. So I'm going to change this to text box. I'm now going to close this subform and I'm going to go back into my Trip Maintenance and you'll see that I now no longer have that dropdown next to the countries on the righthand side. So all the user can see is that specific list of countries.

What I've also done here is I've just removed the border around the subform just to make it look a little bit neater. And as I said, of course you can always go back in and make any changes to this design that you want to. So I can see I've got a little bit of a gab just here. I might want to jump into Design and just drag this border in so that it looks a little bit neater, which I'll probably do in a moment.

So now what we essentially have is a subform that is display only.

That's the end of this section. I will see you in the next one.

Video: Setting Up Subforms – Part 3

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to introduce a new entity into the Esprit de Tour database. We're going to introduce the tour. Now if you remember we did mention this towards the beginning of the course. A tour is an instance of a trip. And a tour is identified by two things, Trip Code and Start Date. So for example, a trip starting on a specific start date is a tour. And there will only be tour of a trip starting on a particular date so that we don't run the same tour with the same dates more than once.

So the first thing we're going to do is we're going to create a tour table. So we're going to go up to the Create tab and we're going to select Table Design. And what I really want to do here is to demonstrate something else about primary keys.

So the first field in the new table, this is going to be called Trip Code and it's a short text field and the trip code is going to be no more than maximum three characters. So in our properties let's change it to three. We're going to say allow zero length. We're going to say No. Is it indexed? Yes. And duplicates in this case are okay. So the next field is going to be Start Date and the data type for this. And because this is a date field the most important thing at this stage is to select a format for the date. So I'm going to select date and time and then again down in my properties in format this will be somewhat determined by the locale that you're using. So I'm going to say short date. Is it required? Yes, it is so let's just change that. Is it indexed? Yes, it is. And duplicates are okay. The next field is going to be Price Adult and the data type for this one is going to be currency. It is required so we'll change that to Yes. And is it indexed? Yes, it is. And finally we're going to have Price Child. Again this is going to be a currency data type, required yes, indexed yes. I'm just going to add a description in for these final two. So I'm just going to say here Adult Price and here I'm going to say Child Price, zero denotes Adult trip. So these are really the only fields we need at this stage.

Now notice in this table I haven't added a unique ID and I've done that deliberately not because I wouldn't normally add one, because for this type of table I probably would, but I just want to demonstrate to you that you can get by without one because there may be some instances where you need to do so. So there still needs to be a unique way of identifying records in a table.

Now in this case none of these fields would really be considered unique. However, I can create a unique primary key for this table not by adding a unique ID but by combining two fields together.

So I'm going to select trip code. I'm going to hold down my Control key and also select Start Date and I'm going to click on my Primary Key button on my ribbon. So those two fields together are going to the primary key on my table. And you can see that I now have that little key icon just down here at the side next to those two fields.

I'm going to just finish this off and add some descriptions. So for Trip Code. Now I need to do a couple of other things to this table. I need to put in some validation for Price Adult and Price Child.

So in the case of Price Adult I will need it to be positive. And in the case of Price Child it will need to be greater than or equal to zero because a zero price is indicating this is an adults only trip. So let's select both of these and put in the validation rule and the validation text. So we're going to start with price adult. I'm going to go down to my field properties and I'm going to add in my validation rule which is greater than zero. Validation text, adult price must be positive. Let's go to price child. Validation rule greater than or equal to zero. Validation text and there we go. That's the validation done.

Now what we need to do is to set up a relationship between Trip and Tour and those are linked by the three character code. So I'm going to save this table and I'm going to call this one tblTour and now we need to set up a relationship between Trip and Tour. So let's jump up to Database Tools and select Relationships. And let's add in our new table which is just here. I'm just going to do a little bit of rearranging. So we're going to set up a relationship between the code field in the Trip table and the trip code field in the Tour table. And you've seen how to do this before. It's very straightforward. We just drag and we drop. And we get our Edit Relationships dialog box. I'm going to say enforce referential integrity and click Create. And a little bit more rearranging just to make it look a little bit neater. And now I'm going to close that Relationships window.

So the next step is to create a subform in which we can display the tours for a particular trip. So I'm going to go up to Create and Form Design. And the first thing I'm going to do as always is just to bring up that property sheet. I'm going to click on my Data tab and I'm going to just set that record source to tblTour. Let's change some of these other properties. So I'm going to go to the All tab and I'm going to change the default view from single form to continuous forms. I'm going to say allow Form view No. We're going to allow Datasheet view but we're not going to allow Layout view. So now we've defined those basic properties I'm just going to start to add those fields on to my form.

So let's go to Add Existing Fields and I'm going to select Start Date, Price Adult and Price Child. I'm just going to drag this form in and also up. And again I might want to get a little bit granular and select all of these fields and then just make sure that those are aligned to the top like so. Now that's all been done in a fairly approximate way and I am going to be adding a couple more things later on, but you will find that with this you get into a routine of how you like to check things. So for instance you might always get into the routine of checking the tab order. So I can see there Start Date, Price Adult, Price Child. Looks pretty good to me. Click on OK.

Now at this stage we are making a maintenance form for tour so we will need to think about things like navigation buttons and also the ability to add and delete records in the subform. So all of those things might need to be enabled.

Now I'm going to close this form, so let's close that field list first, close the form down and we're going to save our changes. I'm going to call this frmTripTour, click on OK and let's go back into Trip Maintenance and let's add that new subform. So if you remember from before we went up to Controls, selected the dropdown, and there is our icon for subform. I'm just going to add it down at the bottom here. We're going to draw a nice big box like so and we used the Subform Wizard last time but this time I'm going to cancel out of here and you can see within here it currently it says Unbound. So it's not tied or linked to any particular table. So I could do this manually by going into the property sheet. And the first thing I'm actually going to do here is I'm going to take this little label and I'm going to drag that all the way out. I'm going to go into my properties and I'm going to change the text alignment to center. Now looking at our subform report you can see in the property sheet it's currently called Child 20, which isn't particularly meaningful so let's give that a different name. The source object is that new form. And you can see now that as soon as I select that I now get my fields on my form. And let's just jump to that Data tab and just check the link master fields and the link child fields, so Code and Trip Codes. That all looks fine. Now I haven't gotten any data yet so I'm going to add some data in a moment, but for now I'm going to save this as it is.

Now I'm going to import some tour information and I have my tour information stored in a tab delimited text file. And you'll find this text file, it's called Esprit de Tour Tour Import.txt in the course files folder. And you can see at the top we have our header. So Trip Code, Start Date, Price Adult, Price Child. And what I'm going to do is I'm going to import this into the database and hopefully it will populate the Trip Tour table and we'll be able to look at some of the tours and the prices in the subform.

Now I need to point out that I'm recording this course in November of 2019. If you're following this course at a later time you might want to go through and change the dates in this text file. So hopefully these should be good there sort of for the next couple of years but if you are coming to this course quite a while in the future then please feel free to go through and just edit some of these dates so that it's more suitable for the time period that you're running it.

So what I'm going to do now is I'm going to go away and I'm going to import this data into my database.

So it looks like my import has been successful and I can step through the trips and see the various instances of tours related to those trips.

Let's just go back to the Grand Canyon Family Rafting Adventure and I mentioned changing the dates after you've done the import. So when we create a table with a date and time field by

default it gets a little date picker. So if I need to change a date just here where it says Start Date I can click the little calendar and I can go in and select a different date from there.

Now one of the things about this current arrangement is that although I have a number of tours they're not in any particular date sequence. I'm going to fix that now but see if you can work out how to do that for yourself.

So that's it for this module. In the next module all that's left to do is an exercise so I will see you over there.

Video: Practice Exercise 06

Deb: Hello there and welcome back to our course on Access 2019. It's now time for Exercise 06 and this exercise involves you doing quite a few different things.

The first thing is to create a country table in the Night Movies database and this is going to be used as a lookup for the actor information that we're going to talk about next. So essentially as you add actors to the database you'll be confirming that their country of birth is in that country list and also selecting their country of birth. So that's the first part of the job.

The second part of the job is to create an actor table. Now in time you may well have dozens of pieces of information about actors but we're starting off with a pretty basic set of information. And I've listed out all the fields I've used and you can of course list your own fields with your own names. So if you have a particular naming convention that you've been using you can change those, but I will say if you do start to make changes to these be careful when it comes to importing data to ensure that you rename the field names in the import file to what you've renamed them in the table.

So in my actor table I have the ID, I have Actor Name as full name of the actor, I have their given name. So that might be John, for example, followed by the family name which might be Smith. Gender will either be M or F for male or female. The country of birth or birth country will be taken from the new country table. The born date is their date of birth. And the died date is obviously the date of their death, and remember not all actors in your database are going to have a died date.

Now what I've done just to help you out a little bit is I've provided you with kind of like a starter pack of actors arranged into a tab delimited text file. So you can see the top one up there we have actor name Harrison Ford, given name is Harrison, family name Ford, gender is male, birth country U.S.A., and then we have the born date of 7/13/1942, and we have no died date because he is in fact still alive at the time that this course was published.

Now if you look back at the movie info that's in the same folder in the exercise files you'll find that I've covered a number of actors in that info. So this should give you a good start.

What you then need to do is to create a relationship between movie and actor. And of course remembering that a movie may have many actors in it and an actor may have been in many movies. And there's a couple of clues as to how to do this in the Relationships window.

Now again bearing in mind that I haven't done any formatting to this, I haven't made any attempt to make it look particularly pretty here is the first movie with the next part of the job completed. So I've added the leading players, so that's the two leading actors in the Shawshank Redemption. Now I've deliberately put the ID number of those two actors in there. And when you come to import the two people in question, so Tim Robbins and Morgan Freeman, might not

have the same numbers as me. And you might be worried seeing those numbers in there but don't worry I'm going to explain to you how to put that right a bit later on.

So that's it for Exercise 06. Quite a lot of work for you to do in there. And if you really have time and want to do more why don't you create an actor maintenance table and in the actor's maintenance table create a movie subform that shows the movies that actor has been in.

Now that part is completely optional but if you do want to really get into it and test your skills then that's a little extra add on that you might want to do.

That's it for Exercise 06. I will see you in the next section.

Section 13 – Query

Video: Creating a Query

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to start to look at queries in more detail.

So first of all what are queries and why do we have them? Now first of all in all databases looking for something can take some time. So for example, in the Esprit de Tour database this might have thousands of tours and if you want to find a tour that satisfies certain requirements, such as the price was within a range or it went to a particular country then it could take quite a long time to find the correct trip or tour. So what a query enables you to do is to specify the criteria and then it will find for you the database objects which in the case of the Esprit de Tour database might be a trip or a tour to find the ones that satisfy the criteria.

Another advantage is that if the information you want is not in one table but in several tables the query can join together the information from different tables and present you with only the details you want.

So what I'm going to do is I'm going to show you how to make queries and also how to understand queries that Access can make for you. So let's start by creating a very straightforward query.

I'm going to go up to the Create ribbon and I'm going to go to the Queries group and Query Design. So now what you essentially have here is a Query window with two different parts. And just hovering over the top of that we have this Show Table dialog box. So the first thing we need to do is to select the table or tables that you want to query from. Now you'll notice that there are three tabs at the top here so you could also specify a particular query to query from or you can choose both. Now we don't currently have any queries so there's nothing in there. So even when we click on Both it's just really showing us our different tables.

Now what I'm going to do is I'm going to add the Trip table to the Query window. So I'm going to select it and click on the Add button. And then I'm going to close the Show Table dialog box.

Now in the panel I have added I can see each of the fields within the Trip table. So all I really need to do is to drag the field or fields I want retrieve down onto the grid. And the grid is kind of in the bottom half of this window. And it's called the Query by Example or QBE. Some people refer to it as a QBE but most of the time the most common way that I've heard it referred to is the Grid.

So what I'm going to do is I'm going to drag Trip Name onto the grid. So I've now essentially created a query. And once you've created a query you can essentially run it. So I'm going to go

up to the Results group and you'll see we have a big red exclamation point there which says Run. So let's run this query.

And what has happened is that we've retrieved all of the trip names from the trip table. Now we only got the trip names because that is all we specified as our criteria. And you can see that those trip names are not in any particular order. In fact they're just in the order in which the records are. So at the moment I am looking at the results of running the query.

I'm going to jump up to Views and you can see in here now I have a view called SQL view. So let's switch into that. An SQL view is the view that shows the query expressed as a structured query language or an SQL statement. And this is where you can kind of if you're used to programming languages this might look slightly familiar to you. So even if you're not let's just read through it. So we can see here it says Select the tblTrip Trip Name from tblTrip. That is essentially what it's doing behind the scenes. And that's exactly what we got. We got all of the trip names from the Trip table.

Now don't worry too much that this is on two separate lines. That really has no significance at all. In fact I could come into here and I could click in front of From and just hit the backspace key and it's really not going to make too much of a difference. If I was to click Run again you can see I'm going to get exactly the same results.

So that is our first query that we've created fairly straightforward. And of course we can save it. So if I go to close this down it's going to ask us to save and I'm going to say Yes. And I'm just going to call this Query Test at this stage. So qryTest and click on OK.

And what you'll also see now is that the left hand Navigation pane I now have an additional category added in for queries and there is my query Test.

Now one of the first things to get used to is that Access let's you work in SQL view or Design view and it keeps both up to date. So let's say I wanted to do some work on my query. I can right click, go into Design view and that essentially jumps me into SQL view. Now what I'm going to do here is I'm going to change this query in this view. So if I want to select a second field I can separate it from the first with a comma. So if I click at the end of Trip Name here and I'm going to enter a comma, I'm going to specify the table so it's the same table, tblTrip, dot. Now really all I'm doing here is copying the one before but I'm going to get it to pull out a different field name. So I'm going to get it to pull out the duration as well. So I'm going to say Duration Days. So that's the second field that I want to retrieve from the table. So what I'm hoping to see when I run this query is that not only am I going to get a list of the trip names but I also want to see the duration in days. So let's check that that query works by clicking on Run and there we go. I have my trip name and I have the duration in days. So I'm fairly happy with how that's working.

So now let's look at this in Design view. So I'm going to go to View and switch to Design view. And what you can here in the grid is that we have two columns filled in at the bottom. So

basically it's saying show the trip name and show the duration days from the Trip table. So that's kind of how the Design view and the SQL view are kind of kept in sync with each other.

Now generally speaking in the grid the first row contains a field name and if you wanted all of the fields in a particular table you can drag down this asterisk. So you can see here in the top half of the window where we have our tblTrip table you can see the little asterisk here. So what I could do is grab that asterisk and drag it all the way down. So you can see now in the grid I have this tblTrip asterisk which is going to show me all of the fields in the trip table. Now in this case I don't particularly want that so all I need to do is highlight that column and press the Delete key to get rid of it.

Now the second row in the grid is the name of the table and the third row enables me to specify a sort sequence. So if I click in the Duration Days column in the dropdown I have Sort Ascending or Sort Descending. So I'm going to say ascending and I'm going to run my query again by clicking on the Run button. And now you can see that my trips have essentially been sorted by duration in ascending order.

Now if I go back to our SQL statement, so let's go to View and SQL view, you can see that we now have a new row. So it says Order by tblTrip.durationdays. So it's specifying there the sort order. Now if I wanted to change that sort order from ascending to descending I could either go back and change it in the grid or I can come into here and I can click just after where it says Duration Days and type in DESC. Let's run our query again and there we go. You can see that they're now sorted in descending order. Let's jump back into Design view and if we look down in the grid you'll see in fact that that third row has now changed to descending. So again that is the SQL view and the Design view staying in sync.

Now the next thing I'm going to do is to introduce a third column and we're going to include the activity level into this query. So I'm going to grab Activity Level, I'm going to bring it down to the grid and we're going to introduce a criteria for this activity level. So you'll see that there's a row called Criteria. I'm going to click in here and I'm going to say equals Moderate. I want the trips whose activity level is moderate in descending order of duration. So let's run our query. And there we go.

Now I don't really want the word Moderate listed over and over again. I don't really need that so let's go back into Design view and what we can do is we can uncheck the Show box. So what that means is that although I'm using activity level in this query it's not going to show it. And let's click on Run and there we go.

So let's jump in and take a look at what the SQL looks like for what we have now.

So what you can see now is that we have an additional Where clause that's been added in. So Where tblTrip Activity Level equals Moderate. And what I'm going to do here is I'm going to add an additional piece of criteria.

So in between these two round brackets, so I'm just going to click in between them and press my Spacebar, so I'm going to say And tblTrip Duration Days is greater than 10. So now I have two pieces of criteria and each criteria is in a pair of round brackets. So both must be true. And to tie them together we have a pair of round brackets around the outside. Now I'm sure you can imagine the more things that you add this can get very, very complicated. So sometimes looking at this in Design view is a little bit easier.

Now let's first run this query and there we go. Those are my results.

So as I said, let's look at this in Design view and if we look down at the grid what you can see here is duration and we're sorting it in descending but we have our criteria added of greater than ten days. So that can be a little bit easier to understand. We also still have our activity level set to moderate.

Now say that we don't require both of those to be true. If we don't we might want to use an Or statement or an Or clause. So here we might want to say Show me all the trip where the activity level is moderate or the duration is greater than ten days. So let's go back into SQL view and all we would need to do is switch this And statement for an Or and let's run the query again. And there we go. We get a longer list this time. Let's go back into Design view one more time and what you'll notice is a very slight change just here. So we now have our criteria on two separate rows. And you can see that it now says Or at the side. So it just helps you organize a little bit in your mind as to what exactly is going on. So that is really the very basic rules of queries.

In the next section we're going to expand on this and we're going to look at the next step up from queries which is joins, so please, no pun intended, join me for that.

Video: Joins

Deb: Hello again and welcome back to our course on Access 2019. In this section we're going to continue looking at queries and in particular Joins.

Now when you need to go to more than one table to get the information you need you need to join the information from a number of tables. And the way the information is joined is very important and it can sometimes be tricky to work out how to join. So I'm going to cover a couple of basic examples of SQL queries that involve joins of tables.

Now we're going to carry on using our test query or query Test and I'm going to go into Design view. And I'm going to clear out this criteria. So I'm just going to delete out that and that. And I'll also do away with the sort for the moment but I am still going to reference the trip table. Now if I right click on the upper part in the Query Designer and select Show Table, I'm going to go through here and I'm going to add the Trip Country table and just click on Add.

Now I'm going to close that down for a moment. Now for the avoidance of confusion when we originally set the trip table up we started off by putting a country in there as a field in the trip table. Now we don't use that any longer. We use the Trip Country table to provide a list of countries for each trip. Now when I added this second table Access looked to see if there are any relationships between these two and of course there are. And you can see that relationship just there in the middle.

So now I'm going to run a query to list the countries for each trip. So I'm going to remove Activity Level, I'm going to remove Duration Days and I'm just pressing Delete to get rid of those, but I'm going to include the country from the Trip Country table. Now you can see that we need a join as there are two countries involved in this query. That is country from the tblTrip and country from tblTripCountry.

So before we look at the join let's first of all run this query. So I'm going to click on Run. Now you might be a little surprised by the results. There are a number of records but you don't see all of the trips or all of the countries.

Now first of all whenever you run a query the set of records that comes out as a result is normally referred to as the Query Record Set. So the record set here has ten or so records and they certainly don't include all of the trips or all of the countries. Now I'll explain why by going into SQL view.

So here you can see the select statement and if you look at that second line you can see we have something in here that says Inner Join and what inner join does is to say that we're only going to include records that exist in both the Trip table and the Trip Country table. And how we match those is whatever is specified in the On condition just there. And the On condition is that the ID in the Trip table equals the ID in the Trip Country table. So it's basically saying we are going to

see a list of trips and the countries they go to but we're only going to show trips where there is a country and we're only going to show countries where there is a trip. And of course if you remember back to the beginning I never actually finished setting up the Trip Country records in this database.

So if I open up the Trip Country table you will see the trips that I've set up countries for. And there's definitely a few of them missing from there. So let's go back to our query and go back into Design view.

So our first job here is that an inner join that says I must have records in both parts of the join. So when I added the Trip Country to Design view Access would have looked at the relationships I had made it aware of and realized that there is a relationship between Trip and Trip Country. And as I said previously you can see that indicated just here. So it's formed that inner join on the basis of that relationship.

Now let me double click on the relationship to bring up the Join properties. And you can see here it says Left table name is tblTrip, right table name tblTripCountry, left column name is ID, right column name Trip ID. So you can see how those are linked together. We then have three options and the first one is selected because it is the default option. And it says Only include rows where the joined fields from both tables are equal. The second says Include all records from tblTrip and only those records from tblTripCountry where the joined fields are equal. And the third option, Include all records from tblTripCountry and only those records from tblTrip where the joined fields are equal. So let's take a look at what happens if I was to select this second option.

I'm going to click on OK and let's run the query. Now what I get is a list that includes all of the trips but for the trips that don't have any countries I can still see them. They just don't have the countries shown. And if we jump back into SQL view you will see the inner join has now been changed to say Left Join. Now left join means include all of the records on the left. So everything in Trip table but there will only be an entry on the right where an entry on the right exists. So in this case we have all of the trips but some don't have the countries they visit recorded.

So having seen inner joins and left joins you may be tempted to think, "Well why don't we just do a right join?" Well, to be honest with you that wouldn't tell us much in this scenario. What it would say is I want to include everything in the Trip Country table but only corresponding entries in the Trip table on the left. And everything in the Trip Country table must have an entry in the Trip table on the left due to referential integrity. So in this situation that doesn't really help us too much. But let's look at an instance where you might use right join.

I'm going to jump into Design view and I'm going to show the Country table. And I'm going to remove Trip Country completely. Now notice the relationship between Trip and Country. In this case we have a relationship based on the old country field in the trip record. So I'm going to take country from the Country table and we've already got trip name from the Trip table and I'm going to double click on that join, I'm going to say I'm looking at right, and let's run that query.

Now of course because we are referencing the Country table we get all of the countries on the right and on the left we get the trips that mention that country in that specific field. So remember this is not using the Trip Country table anymore. It's just using the contents of the country field in the trip record.

So that gives you an example of a right join and if we jump into SQL you can see there now it says right join. Now it might take you a while to get used to joins but you'll find that they're something that you're going to use a lot when you start working more with Access. And they can help you put together some really useful queries.

For now that's it for this section. I will see you in the next one.

Video: Query Wizard

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to continue looking at queries and I really want to focus on two things, the Query Wizard and other query types.

Before we do that so far we have been specifying the country for our trips in two places. So we have had the country specified in the trip table record as well as having the trip country records. Now what I'm going to do is to remove the country from the trip record and as part of that I'm going to show you how to remove a field from a record.

So the first thing I'm going to do is I'm going to go into Design view for the trip table and I'm going to select the country field, I'm going to right click my mouse and I'm going to select Delete Rows. And it's asking me do I want to permanently delete so I'm going to click Yes. And what it will also prompt me is that by deleting this country field it requires the Esprit de Tour Trips of a Lifetime version 09 to delete one or more indexes. So I'm going to say Yes to that as well. And you can see that that field is now gone.

Let's now look at the Query Wizard. Now some of the comments related to this I'm going to base on the trip table. So in this trip table we have a code, a trip name, an activity level, description, duration days, price minimum, and price maximum. Now I'm going to close this Trip table and I'm going to go into the Query Wizard. So it's really important to make sure that you do have the correct table selected in the Navigation pane. So let's go to Create and Query Wizard.

Now there are really four options for the type of query that you want to create. One of them is a simple query, there is a cross tab query, there is a find duplicates query, and a find unmatched query. Now as we're looking at the Query Wizard and the query types I'm going to explain some of the query types in this section and some I'm just going to leave for you to have a little read about, so a little bit of extra reading for you if you want to do that.

One other thing I'd like to point out here is if you do want to learn a little bit more about queries you do have the little question mark in the top bar here which will take you to Help on queries. And again that is something that I recommend you do go into and have a little look at.

Now on this occasion I'm going to stick with the default and stick with a simple query and click on OK. Now it says, Which fields do you want? And by default it selected the Trip table and that's because that's what I'm clicked on in the Navigation pane. And what I want is the code from that. So I'm going to select code and click on the little chevron to move it into the selected fields area. I also want the trip name, but then I also want from the Trip Country table the country. So I'm essentially selecting fields from two different tables and this Query Wizard makes it really easy to do that as you can just switch to whichever table you want. I'm going to click Next.

I then need to choose if I would like a detail or summary query. Now in this case let's do detail and click Next. And then what title do we want for our query? So I'm going to go in here and I'm going to rename this to QRY, just to keep the same naming convention, Trip Country query. I then need to select one of these two options at the bottom. So it says, Do you want to open the query or modify the query's design? Now I'm going to open the query and click on Finish. And we have the same result that we had earlier on. So it's basically looked at the data and for every trip that has a country specified in the Trip Country table it's basically given me a list of the countries that the trips go to.

Once I've done that I've got a query and even though I created it with a wizard it's just a simple query. So you can see here in the Navigation pane I now have my new query listed in the queries group. And if I was to go into the SQL for this you would see it pretty much looks very similar to the queries that we created previously. So nothing is different. That's the point I'm trying to get across when you use the Query Wizard. It's just a different method for putting together that query.

Now there's a lot that you can do with queries and you can do a lot of things like summarizing and aggregation of data and so on. Now I'm not going to go into too much detail about that but I do want to introduce the possibilities in this course.

So again let's go up to Create and jump into that Query Wizard. We're going to choose Simple Query again and from the Trip table we're going to take the code and the trip name. And we also want some information from the Tour table. And I want the price adult information as well. Let's click on Next. And this time we're going to do a summary. And you can see here underneath I have some summary options.

Now what Access does is it looks at the fields I've selected and it's determined which ones are suitable for summary or aggregation. So the most suitable one is price. So it offers me some calculations I could do. And again if you're a user of Excel then these will probably look reasonably familiar. I could choose to do a sum, an average. I could find the minimum price and also the maximum price. So I might think to myself, well, it could be quite interesting to check out what the minimum and max prices are and also what the average might be as well. So I might want to select all three of these.

And another thing that I have down here is a little checkbox which says Count the records in tblTour. So basically if I was to select this option it will tell me how many tours I have scheduled for each of my trips. So I'm going to select that one as well. I'm going to click on OK and let's click Next and I'm going to call this one qryTripTourSummary query. I'm going to say Open and click Finish. And what you see there now is the average price over all the scheduled tours, the minimum, the maximum, and the count. So hopefully that gives you more of an idea of how you can use this wizard for summary and aggregation.

Now let me just remind you of something that we looked at briefly at the start of the course. If you look at the design of the Trip table and specifically the code field, if you look down in the field properties in the general where it says Field Size you can see that the three character code is indexed, and so it says Yes and No duplicates. Whereas a trip name, we highlight that, is not indexed. So if I'm adding data into my Trip table it would be impossible to add a trip with the same code because of that indexing and because duplicates are not allowed. Now if I accidentally added a trip with the same name but somehow the code was different I could use one of the other options in the Query Wizard to detect duplicates. But I'm not going to show you that. I'm going to leave that as some extra work for you to do, some extra research if you like after this course.

So let's close down this Trip table and just go back to Create and jump into that Query Wizard again. So the option I was talking about there was this one, Find duplicates Query Wizard.

Now the one below where it says Find unmatched, this is also very useful because it will create a query that finds records in one table that have no related records in another table.

So let's imagine I want to find the countries for which I currently have no trips. So I'm going to click on OK. So if I select Country, click on Next, and select Trip Country, click on Next again. You're then going to look to see what the match is between the two. And in this case it is country. Let's click on Next. What fields do you want to see in the query results? Well again it is country. Click on Next and I'm going to call this query CountryNotVisited and I'm going to say Finish. And those are the countries for which I currently do not have a trip. So this can also be a really good way of checking that your database is set up correctly.

Now when it comes to creating queries if I click on Query Design there are a number of different types of query, as I mentioned before. Now apart from Select Query which is what we're in now and you can see that highlighted on the ribbon we have a Make Table query whereby you select records and make them into a completely new table, we have an Append query and this often is used when merging databases or tables, basically adding a data set to an existing table. Then we have a Crosstab query which is used to aggregate data by two sets of values. So what I mean by that would be if you wanted to subtotal and average on a month by month basis then you would use a Crosstab query. And we also have a Delete Query. And you can use that if you need to do a bulk delete.

Now for all of these query types, as I said, I recommend that you do take a look on the queries Help page just to gain a better understanding of exactly what each of those do.

So the final thing I want to demonstrate to you in this module is an Update query. So let's pretend that we want to update all of the adult prices by \$10, increase them all by \$10. So I'm going to select the table Tour and click Add and that at the moment is the only one I need so I'm going to close there. The query type is going to be Update so I'm going to click that. The field I want to change is going to be price adult so let's drag that down to our grid. And we want to update it to price adult plus ten because we're increasing it by \$10.

So, so we can check to make sure that this is going to work let's have a look at our tour prices to begin with. And we can see the top one there. Price adult is \$11,360. Let's jump back to our query and let's briefly look at the SQL for this query. And we can see there price adult plus ten. So let's run the query and it says you're about to update 70 rows so I'm going to say Yes. And now if we go back to tblTour you can see there that price was \$11,360 and it's now been updated to \$370. So I can see that that query has actually worked.

And it's worth noting if we go back to that query how easy it would be to put those prices back to how they were. So I could just replace the plus with a minus, run the query, select Yes, and then our prices are back to how they were before.

So hopefully that's given you a bit of insight as to how you can utilize that Query Wizard.

In the next module I'm going to take you through an exercise, exercise number seven, so I will see you over there.

Video: Practice Exercise 07

Deb: Hello again and welcome back to our course on Access 2019. It's now time to do Exercise 07 and Exercise 07 follows on from Exercise 06. And in order to set up this exercise I'm going to show you how to overcome an issue in the Esprit de Tour database.

Now we've already seen the use of the country maintenance form. So we can do things like add and delete records. But say as part of the overall maintenance we wanted to show a list of the trips that go to a particular country. So what I'm going to do is to create a country trip form to be used as a subform and show you a particular problem we can solve using a query.

So I'm going to jump up to the Create tab and I'm going to go to Form Design. And I'm going to bring up the property sheet and I'm going to go to my record source, so the first field here. And my record source is Trip Country. I'm going to jump across to the All tab so I can see all of my fields and I'm going to change the default view to Continuous. And I'm going to say that we're not going to allow Form view and we're not going to allow Layout view. And all I really want to do is to show the trip in the subform.

So I'm going to click Add Existing Fields and I'm going to put the trip ID in. So I'm going to double click to add that in. So let's do some formatting just here. I'm just going to get rid of that label. I'm going to take the trip ID and let's just move that up and we're going to resize the form a little. Okay. And then going to close it down and save the changes. So this is frmCountryTrip and let's click on OK.

Now let me go into the country maintenance form again and what I want to do is I want to add a subform to it. So what I'm going to do is I'm just going to make this a little bit bigger and a little bit wider. Then I'm going to add a subform. And all of this we've done previously. I'm going to cancel the Subform Wizard for now. And in fact let's just make this a little bit longer so we don't have a clash with the label and the country field. I'm going to set some of these properties and let's just click on the label and change some of those properties. And again let's just do a little bit of formatting. Let's make that wider and then we're going to text align to the center. Again all of this is stuff we've done previously. And yep I'm happy with that so let's close this down. We'll say yes to save the changes. So now let's have a look at country maintenance. So Antarctica we have none. So let's scroll through our records. So we have four trips that visit that country, four for Canada, I've got two different trips that go to Costa Rica, so on and so forth. Now the point I'm trying to make here is it's not particularly helpful to have those IDs there. What we would really like to see is the name of the trip and the codes. So what I'm going to do is I'm going to change the design of the subform so instead of showing the IDs it shows the code and the trip name.

Now the important thing to remember here is in the Trip Country table it will still be storing the trip ID in the table. So it's not going to replace that with anything that we change it to. So it's not going to change the trip ID to the trip name and codes. It will still store it as trip ID in the table.

So let's now go into our country trip subform. I'm going to click on the trip ID field and in the property sheet I'm going to jump to the Data tab and you can see here all the properties for that combo box. And if you look at the row source it's saying here select the ID from tblTrip or the Trip table. And what I can do is I can actually change that. So if I click in that field you'll see the little ellipses to the righthand side, those three little dots, if I click those it will take me into the Query Builder or Query Designer. And you can see here I have access to my tblTrip and I've got ID. I also have code and trip name. So I can grab the code and drag it down. I can also grab the trip name and drag it down. So I'm now going to be getting this information from all of these three fields.

So let's close that. Yes, I want to save. And now if you look in that row source you can see we have a lot more information in there. So it's now saying that we're selecting the code, the ID, and the trip name from tblTrip. And let's just make this a little bit wider so it's a bit easier to see.

Now one thing that's very important here is that now I'm selecting three things to display in that control. Which one of them is the bound column? So which of those three is bound to the control source trip ID? And it's the first column, which you can see there in that bound column field.

Now let's jump across to our Format tab and we're going to say that instead of one column we've actually got three. And you can see under there the width of each column. So we have 0.2813 inches for the first column, 0.375 for the second and 3.0625 for the third column. So the first one is actually fine. Now I'm just going to make a quick change to the columns two and three. So we're going to change them to one inch, like so. So let's close the form and save the changes. So let's now go back into our country maintenance form and let's scroll through and find one of our trips. Now for Costa Rica you can still see there it says seven, but if I click the dropdown you can see that not only do we have the ID but we also have the trip code and also the trip name. So that makes it a lot more meaningful and easier for you to know what you're referring to. Okay so now that information is available for us to view.

I'm going to close down this form. I'm going to go back into the form Country Trip, I'm going to select that trip ID control and I'm going to change that first column width over in these properties to zero inches. Now it's very important the value in that column is still available but it will just no longer be visible. Let's close down again and save our changes. Open up country maintenance and let's scroll through to a country that has something there and we can see something different now. So we can now see the code in the dropdown. And we can no longer see the trip ID.

So with all that in mind let's look at our sample answer to Exercise 06. And if you remember the name of the actors were not shown but their IDs were. So we can see here in leading players we

have the character name but we have the IDs linked to the actors that play these roles. And this is how Movie Maintenance looks after Exercise 07. I'm now seeing the names of the players or the actors, so Tim Robbins and Morgan Freeman. And if I want to add somebody, so let's say I go to Schindler's List and you can see there we've got Ralph Fiennes or Ralph Fiennes. And if I click the dropdown notice here that the names of the players or the actors are in alphabetical order. And the way that I've actually done that is I've created a query and you can see the query there in the Navigation pane. So query ActorsFamilyNameSequence.

Now you can either do this by creating a query separately or you can do it in the way that I showed you earlier on. And that query will obviously be used on this particular control or this particular combo box. What I could then do is move on to the next record and maybe add some other people into here and so on.

So that's Exercise 07. See how you get along with that. I will see you in the next module.

Section 14 – Expressions

Video: Setting Up Validations

Deb: Hello again and welcome back to our course on Access 2019. In this module and the next module we're going to start to take a look further into Expressions. And we've used a couple of them already in the course.

Now not only is it an important skill but it's also an extensive subject area. So we're going to look at a few of the options but as always I would always recommend having a little look in that Help file and just do a search for Expressions to really get a fuller understanding of all the different expressions that you can use. Now as I said, we are going to do a couple of examples so you can get an idea of how they work.

Now earlier on we had one or two examples of adding validation and now we are looking at the Night Movies database, so this is Exercise 07. And in this database I've opened the Actor table. And you can see in our field name list we have a born date and we have a died date but we don't actually have any validation in here. So we're specifically dealing with born date in this example and there's currently no validation. Well what do I mean by that exactly? Well we're going to make a little bit of an assumption here and we're going to say that any actors that appear won't have been born before 1880. Now there might be some instances with the data that you use where you may have some actors in some really old classic movies which may have been born prior to that date but just for purposes of this example we're going to say no actor was born before the year 1880.

Now when we're talking about the year of birth the validation which would be greater than or equal to 1880 would be easy enough to do. But when I'm working with dates I need to put in validation against a date. And working with dates is one aspect of working with expressions that's really important to get your head around.

Now you can see currently I have the born date field highlighted in the table. And if you glance down to field properties on the General tab you'll see that one of the options we have is validation rule. And if you click in that field and cast your eyes over to the righthand side you'll see three dots or ellipses as we call them. So let's jump into there and this brings up the Expression Builder. And the Expression Builder includes a main panel to build the expression and then below that three other panels, Expression Elements, Expression Categories, and Expression Values. And if I want to build an expression I can build it in the upper panel using components from the lower panel.

Now in the early stages you may use this panel but after you've been doing this for a while you will find that you can probably type in to the upper panel the expression that you want to use, but again that just takes a little bit of practice. And once you have been using it for a while you

might very well be able to do that. But in this demonstration we're going to use some of the elements from those lower panels.

So our basic requirement here is that the born date is no earlier than 1880. And what that means is that the date is greater than or equal to January the 1st 1880. Or perhaps we could say greater than December the 31st 1879. Now that expression is in two parts. First there is an operator and the operator is greater than or equal to or greater than. And if you look at the first of the lower panels expression elements one section is operators. And when you select operators you can see the expression categories there in the middle. So currently I have all selected. If I go through arithmetic you can see some expression values. We have comparison, so that is where we have our greater than, less than, greater than or equal to, between. We have our logical operator, so And, Or, things like that. And then we have our string operators. So that's just got one and that is an ampersand which is essentially how you can join two expressions together or concatenate.

Now in this case the operator we want is in comparison. So let's choose greater than or equal to, double click that and you'll see that it appears in that top panel. So this is essentially the first part of the expression. The second part of the expression is the operand or the thing that the operator is operating on, which in this case needs to be the date, which is January the 1st 1880. So let's type that in. I'm going to type in 1/1/1880. Now watch what happens when I click on OK. So there is my validation rule but you can see that the date is enclosed between hash symbols. And the way you denote a date constant in Access is to enclose it in between hashes. So if you type a date the way that we did just here and Access recognizes it as a date it will put those hash symbols in for you.

So here we have our first version of this validation rule. Born date is greater than or equal to the first of the first 1880. But that's not quite going to be good enough. We want to also make sure we don't put in a date in the future. So it is entirely possible that an actor could have a born date of today. There have been many newborn babies that have appeared in films, but I'm going to say that when we enter or modify a born date not only must it be no earlier than January the 1st 1880 but no later than today. So I could put in today's date but in a couple of weeks' time it's no longer going to be today so what I really want to do is put something in for the other part of the validation rule which will deal with an expression like today as opposed to a constant or a fixed date.

So I'm going to go into my Expression Builder again and I'm going to change my validation rule and say that it must be between two dates. So let's jump down into operators again and let's go into comparison and you'll see the expression that we have in there is between. So what I'm going to do is I'm going to go up to my top panel, I'm just going to click at the start there and I'm going to delete out that operator that we had, so greater than or equal to. And I'm going to essentially replace it with between by double clicking. And you can see what Access does is it kind of puts in a little template for you. So it says Between and then it has first expression and second expression. So I already know what the first expression is. It's going to be this one just

here. So born date first of the first 1880. So what I'm going to do is I'm going to cut that using my keyboard shortcut, so Control-X. I'm going to highlight the first expression and do Control-V just to paste that in. But for the other date I need to use one of the Access functions.

So you can probably see where we're headed here. We have in the expression element section, if we double click on Functions you can see that we have a folder essentially called Built-in Functions. And we have some expression categories again. So expressions are divided down into these different categories. So we have some conversion expressions or functions, date and time functions, financial, general, inspection, math, and text. Now we're interested in date and time so I'm going to click on that one and you can see our expression values there's a long list here and you might be thinking, "Well how do I know which one is going to give me today's date?" Well, whichever one you're clicked on if you look down at the bottom of this dialog box you'll see that you get a little explanation as to what that particular function does. So it makes it a little bit easier for you to find the one that you want.

And if you click on the third one just there and look at the description it says Returns a variant of type date containing the current system date. So that's pretty much what we want. So let's double click to add that to our expression.

Now obviously this function that we've just added to our expression this really does rely on the fact that you have your system date or the date in your PC set correctly. So always worth double checking that before you proceed.

I know that mine is set correctly so I'm going to click on OK. And if you look now down in our validation rule we can see what we have. It says Between the first of the first 1880 and today's date.

Now let me go to the field below and put some validation text in. I'm then going to save that validation and let's take it for a test drive.

So let's pick a record here. Let's go with Morgan Freeman's record and I'm just going to change the born date from six of the first 1937 to 1837. Nope. So there we're getting our validation popup. Date of birth can't be earlier than the first of the first 1880 or later than today. So let me change that back and there we go. It's working again. Let's try it again. So let's change it to 2037 this time. Nope, it doesn't let me do that either. And change that back. So I'm fairly confident that the validation rule that I've set up there is working.

So that's it. That a quick overview of using that Expression Builder to add some validation into your tables. That's it for this module. I will see you in the next one.

Video: Calculation using Expressions

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to be taking a look at how you can do calculations using expressions. And what we're going to be doing is a calculation using an expression to populate a field on a form which is not a field that is stored in any of the records in our database.

And what we're looking at now is the trip tour form which is currently being used as a subform in the trip maintenance form. And this is the one where we list all of the tours that are currently available.

Now at the moment we have three pieces of information in this subform. That's start date, the adult price and the child price. And what I want to do is to display the end date for the tour. So let's first start by making some space for the end date. So I'm going to make this form a little bit wider and then I'm going to take my fields and their labels and I'm just going to move those over. And of course you can go in and you can tidy this up a little bit. If you need to I can move these over slightly just to make some minor adjustments. And whereas I have a start date here, which is bound to the control source start date, what I actually want is an end date. And I'll calculate it by adding the trip duration to the start date.

So the first thing I need to do is to add a control on to the form for the end date and that control is going to be a text box. So what I'm going to do is I'm going to go up to my Controls group on the Design ribbon within the form Design Tools tab and I'm going to select the textbox control. And you can see as I hover over it there I get that little screen tip that says Textbox. So let's select it and I'm just going to draw a textbox. And you can see that currently that is set to Unbound, but we'll deal with that in a moment.

Now if you look at the start date control in the property sheet you can see that the name of the control is Start Date. Now if you click on the start date control and click on All in the property sheet you can see the name of that control is Start Date. So let's be consistent when we're naming our end date control. So I'm going to click on my new textbox that I've just drawn and in the property sheet in that name field I'm going to call it end date. Now it's worth noting that this is just the name of the control. It has absolutely nothing to do with where we get the data from.

Now the label for Start Date, again if we have a look at the property sheet the name says Label 0. Again that's not particularly meaningful. It's going to be hard for me to identify it based on that current name. So I'm going to change that to Start Date Label. Now the caption is currently StartDate and I'm just going to change that to Start, space, Date. Now let me look at the label for the end date control. And again I'm just going to change the name to End Date Label and change the caption to End, space, Date. And I'm going to just move that label. Let's make it a little bit wider as well so we can see the whole thing. I'm going to move it just a bit closer to its field. So there we go. That looks a little bit neater.

Now I'm probably going to want to do a little bit of additional formatting on this. So things such as alignment and I'm going to get that a little bit later on.

Let's first of all deal with this unbound textbox. So I'm going to click on that textbox and what we're going to do now is deal with the control source for this end date. So we're going to need to put something in here, but what exactly are we going to put in there? Well what we want to do is we want to take the start date and add it to the duration of the trip. And it's worth bearing in mind that all of the tours that appear in a subform are all for the same trip. And the duration of the trip is in the trip maintenance form. Now we don't simply add the number of days to the start date. So if it's an eight day tour what I need to do is add the eight and take one off because an eight day tour to get from start date to end date you add the number of nights, which is one less than the number of days. So the formula I'm going to be using to work this out is the start date plus the duration minus one.

Now consider where we can get this information from. Well the start date is available in the subform here but the duration isn't. The duration is in the trip maintenance form. And you could get it from there but a better way of doing this is to make the duration directly available to the form itself.

So if I select the whole form from the dropdown here the record source is tblTour. So effectively I get all of the fields in the Tour table. But what if I get all of that plus the duration of the trip, which this tour is an instance of? So what I'm essentially going to do is I'm going to change the record source for the whole form. So I'm going to go into the Query Builder and I'm going to select the star from tblTour. So I'm going to drag it down and that will essentially give me access to all of the fields in the tblTour. But what I'm also going to do is I'm going to right click and I'm going to say Show Table, tblTrip, which means I can also grab duration days from the corresponding record in the Trip table. So now the source for my form will be a query, and you can see that just there in the record source.

Now let's go back to that end date and what we need in here is an expression that takes the value of the start date, adds the duration in days and subtracts one.

So let's jump into our Expression Builder and we want the start date. We want to say plus and then we're going to look at the field list and we want duration days minus one. So let's click on OK.

Now for the format of the end date field we want it to be the same as the start date which is short date. Now let's close and save that and let's look at trip maintenance now. And if I do a quick visual check, so I can see here that this is an eight day tour and we've got our start date there. So May the 13th 2021, end date May the 20th 2021. So I can see that that looks about right.

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Let's check another trip. So let's move to the next record. So Iconic Italy is 13 days and if I look at the start date there of June the 11th 2020 we have an end date of June the 23rd 2020. So again if I was to count that looks 12 nights, I am happy with that.

So what I would probably do now is to go back in and tidy up some of those alignments and formatting, which I'm going to do next. But what we've seen here are a couple of examples of how to use expressions in Access.

That's it for this module. I will see you in the next one.

Section 15 – Reports

Video: Basic Reports

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to start to look at one of the strongest features of Access 2019 and that's reports.

Now many people's interaction with a database is usually based on the use of forms. And forms are interactive and the information you are accessing and using is usually current. Now when it comes to reports however the situation is often different. Reports are often used for summarizing information in a database. And the sorts of questions you might have are how many orders did we have last month or how many movies did Harrison Ford start in between 1990 and 2000. And often reports are printed or saved as files. So they're not really associated with immediacy and urgency.

Now when looking at a report bear in mind it is a snapshot of a moment in time and things may have changed since you ran the report.

So let's start to take a look at how you can make and use reports in Access 2019.

So we're going to build a simple report using the Report Wizard and then in the next module we'll build a more complex report and we'll look at the Report Design tools. So in this module we're going to build a report of the countries that are in the Esprit de Tour database. And it's a very simple report that just lists out those countries.

Now currently the navigation pane looks kind of empty. I've collapsed up all of those categories and sometimes it's good to do that. When you start to get lots of things in that navigation pane it can be useful to collapse them up and really just expand the section that you're interested in at that particular moment. So I'm going to expand tables and I'm going to select the table first. And the table I want to select is the Country table. And I'm going to go up to the Create tab and I'm going to go to the Report Wizard.

Now in this table we only have one available field and that's the country field. And as always in these wizards with this field picker we need to move it across to the selected fields area by clicking on the chevron. And let's click on Next. Now given that I may have many, many different fields in a report what sort order do I want? Now I only have, if I click that dropdown, I only have one field so I'm going to select Country and I can choose if I want that in ascending or descending order. And in this case I want this in ascending. Let's click Next.

Now when it comes to layout I really have two main choices here. I have Tabular layout, which is the default and the one that's currently selected. And that means that the layout will be kind of like a spreadsheet. And then I have the one above that, Columnar. And if I was to select that it

means the columns are going to flow, kind of like a newspaper. Now in this case I'm going to select Tabular layout.

I also have a choice of my orientation. So do I want it portrait or landscape? And I'm going to go with portrait orientation. And then we have an option underneath which says Adjust the field width so all fields fit on a page. So particularly if you have a lot of fields to fit across the page this will adjust the field width for you. Now with only one field I'm not going to have too many problems but I'm going to leave that checked anyway. And I'm going to click Next.

I now need to give my report a title. And sticking with my naming conventions for my different categories I'm going to call this RPT for Report, Countries. Now it says, Do I want to preview the report or modify the reports design? Now in this case I'm going to say preview the report and I'm going to click Finish. And there it is. There is the list of countries in portrait format. And you'll also notice that now in the navigation pane I have an additional section that's been added called Reports and underneath there I have rptCountries, which is the report we're currently looking at.

Now generally speaking when you have a tabular report the default style is for alternate rows to be shaded. And this in general makes it easier to read.

Another thing you might have noticed is that it goes straight to print preview. If you look at the tab at the top of the screen you'll see that we're now in a brand new, a Print Preview tab. So let's go through some of the main options we have on this tab.

So on the left we have the Print group and if I was to click this it will open the Print dialog box and I'm going to talk much more about this a little bit later on, but technically if all I wanted to do was print this report this is a fairly straightforward thing to do. I would just select my printer from here and click on OK, but we'll come back to these options a bit later so I'm just going to cancel for now.

The next group we have is Page Size. So I can essentially choose the size of the report. Now I'm in the UK so mine defaults to A4 but if you're in the U.S. it will probably default to something like Letter. The next one along is Margins. And again by default mine's set to Narrow which means it's going to fit the maximum amount of information on a page. But if you wanted to you could adjust to normal margins or wide. Just bear in mind that if you do adjust these margins, for example if you were to select Wide it might mean that your report is going to move on to more pages because you've got less room on one page the wider those margins are.

The next group is the Page Layout group and you can see we have portrait already selected, but I could switch to landscape from here. I could put it into different columns if I wanted to. And I could essentially go in and specify the number of columns that I wanted this report to appear in.

Now in this little dialog box we also have a Page tab and this is really just another area you can go to to change the orientation, change the paper size or set up a default printer. But I'm going to click Cancel out of there.

The next group is a Zoom group. So if you wanted to zoom in on a specific part of your report you could use these zoom tools here. So I can either zoom in to 200% or I can zoom out to say 25%. Now I'm going to stick with 100%. I could choose to zoom to two pages or even more pages if I wanted to. So if you've got a particularly long report sometimes it might be worth zooming in for a two page view. I don't have too much information in this one so one page is suitable for me.

So those are your main options when it comes to printing. As I said, we are going to go into printing in a little bit more detail later on.

Now when you finished using this Print Preview you have a Close Print Preview button just here. And you can see it takes me into the design for that report, which we're going to take a look at in the next module.

It's also worth noting that you can get into Print Preview from the status bar. So right at the bottom in the righthand corner that second icon just there is for Print Preview. So if I click that it's going to jump me into that Print Preview view again.

That's it for this module. I will see you in the next one.

Video: Report Design

Deb: Hello again and welcome back to our course on Access 2019. In the preceding section we looked at a simple report and I showed you how to use the Print Preview button and customize many of the settings related to the report. Now in this section we'll be looking at Report Design and we're going to be sticking with the simple country report. And in the next section we'll create a more complex one.

So I've got my report open in Design view and in this view you can see a typical report structure. So at the beginning here we have a page header and at the end we have a page footer. And this central section in the middle where it says Detail this is repeated for every record in the report. Now not necessarily just a record from a table but it may be a record from a data set produced by a query.

Now one of the first things to mention is that if you right click somewhere on the report you'll see that you have towards the bottom a page header/footer option. And you can see that because the icon next to it is highlighted it means that page header and footer is currently turned on for this report. Now if I was to click that in order to turn the page header and footer off I'm going to get a warning message which says Deleting these sections will also delete all controls in them and you'll not be able to undo this action. So this is just a kind of a beware point that you really need to make sure that you do want to do that before you proceed as you can't easily undo it again. Now in this case I want to keep my page header and footer so I'm going to say No.

And let's jump back into that right click menu again. You'll also see at the bottom of this menu we have a properties option. And it's currently selected and that's why you can see the property sheet on the righthand side. If I was to click on that it would remove that property sheet.

Now when designing reports it's kind of similar to designing forms. You have controls and controls have properties that you can then format. So you already have many of the skills that I'm going to show you in this module. Note that there is also a Report Design Tools tab at the top which has four subtabs: Design, Arrange, Format, and Page Setup. And if we jump back to the Design tab you'll see that many of the tools that are available to us in Report Design are the same tools that we had in Form Design. So let's start with this details section.

Now we have a single field that says Country and if I wanted to I could go in there and change the width, the height, the font, the alignment all using the properties sheet. The page header is also a label that says Country. And if we look at the All properties you can see the name of that is Country_Label. Now what you'll see with this field is that Access has assigned a name for this particular control and it says Country_Label. And if you wanted to you could go in and change those to something more suitable or more meaningful to you. And I will say that I normally do do that. I will normally jump in there and change those labels, but that's entirely up to you.

Now I've actually already renamed some of these. So for example if we jump to report header what I'm referring to here is the entire report header, not just that control. And within that section we also have this header label as well.

Now in the page footer we have two controls. One is a textbox with an expression in it. And if I click on that one you can see the properties and I'm going to actually rename this to Page Footer Now textbox. And the one on the right is the page footer page count textbox. So let's go in and rename that one as well. So we have two textboxes and each textbox has an expression in it.

So let's deal with the first one first. And it's worth noting when we click on this and look at the property sheet the control source is not a field. It's an expression. So let's click on the ellipses to bring up the Expression Builder and you can see the expression that's been used. And it uses a function called Now. And this is one of the built in functions. It's a date and time function. And it returns a variant of type date specifying the system date and time. So again if you're used to using an application like Excel you may be aware that you can type in equals Now, open-close parentheses and it will input into the cell in Excel the current system date and time. So it works the same way here. So essentially I've used an expression to provide information that isn't part of a record in any of our tables.

Let's now cancel this Expression Builder and take a look at something a little more complex. So let's click on the second textbox. So let's jump into the Expression Builder again and really take a look at this expression.

So this is made up for four strings concatenated together with an ampersand. And the literal strings are the ones that are contained in double quotes. So you can see there we have first page and that's followed with a space. We then have the ampersand and the second one is an Access system variable. So the page in square brackets denotes the current page number. The third string is another literal in double quotes and it's space of space. And then the fourth string is another system variable and that is pages and that is the total number of pages in this report. So what we're showing essentially in this footer will be a statement that essentially says Page 3 of 6 and that is what this expression will build for us.

Now it's worth having a quick look down here in common expressions and making yourself aware of these different expression categories that are available in Access because you'll probably find that you'll use these a lot.

So let's click on OK and let's take a look at how this report looks. So I'm going to go to View and select Report view. Now this is a one page report. Note that we have the date and then we also have Page 1 of 1. But note that we have a rather unhelpful heading here, rptCountries. Let's jump back into the Report Design and change a couple of things in here.

Now let's click on the first textbox in our page footer again and let's look at our property sheet. So this is the expression that is providing the date. And you can see underneath the format is

currently long date. So let's change that to, let's try medium time. And one other thing I might want to deal with is this header, which doesn't look particularly meaningful at the moment. Now I might want to do some formatting changes. So we've seen before we can just widen out this label to the full width of the report. And I might want to center this text. So I'm going to go to my text align in my property sheet and say center. And let's change the name. So we'll change the caption to.

I'm now going to put in a little bit of text in the report footer. And if you look at the report footer it doesn't really look like we have too much space but if you hover your mouse over and just drag down that will allow you to add just a little bit more space at the bottom of the report. So now I'm going to grab my textbox control and just draw a textbox in my report footer. And don't worry too much about the formatting at this stage. I'm now going to enter in an expression for this textbox. Now instead of using the Expression Builder in the control source field I'm just going to type it straight in. So let me widen this out a little bit so it's easier to see. And I'm going to type in my expression. I'm going to change the name of the textbox and I'm going to change the alignment within it to center. I'm going to reduce the height of this just a little bit and maybe I need also slightly less vertical space. And let's see how that looks now. So View, Report view, and if we scroll down to the bottom you can see there End of Report Total 1 pages. Now if I didn't want this border around that that's something I could do. I could go back into the Report Design and I could remove that border but I'm fairly happy with this how it looks at the moment.

Also note that we now have the time as opposed to the date in the bottom left hand corner.

Now we still have a few more things that we could do here. For example if we look at our heading that's in kind of like a gray shaded box and my footer isn't. So I might want to adjust the formatting so this looks a little bit neater. So there is still a little bit of tidying up we could do on this report. But for now that's it. We're going to move on to looking at a more complex report. So I'll see you in the next module.

Video: Complex Reports

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to create a more complex report. And when we talk about a more complex report the complexity is more often than not due to a complex structure because we have nested information in the report. And we're going to use a similar approach as we did with forms and subforms.

So one way of creating the report would be to create a subreport and then create a report and include the subreport into that report. And this is a very popular way of doing this, a very popular approach. But the approach I'm going to take here is slightly different and it may seem a little bit like I'm cheating but it does give a good result and it's a lot easier to understand.

So we're going to create a report for the Esprit de Tour database. It's going to list the visited countries and for each country it will show the trips that go to that country. And for each trip it will list out the scheduled tours.

Now if you're using the dates that you imported from the text file earlier in the course, if you remember I said you have to be careful a little bit with those dates. So just be aware that the dates may be in the past if you didn't update them. It's not going to matter too much. It's not going to affect the building of this report but if you want it to accurately reflect recent dates then you may want to go in and change those.

Also bearing in mind that in the Esprit de Tour database we don't currently have trips going to all of the countries in the Country table.

Now the first thing I'm going to do is from the Navigation pane is just click on the Country table and I'm going to select the Report Wizard.

So I have my first table here, tblCountry, and we only have one available field in there. So I'm going to select it and move it across to the side. Now I also want to include some fields from other tables. And the first table is the Trip table. Now I pretty much want to use all of these fields except the ID field. Now a quick way of adding all of these fields into selected fields is to click on the double chevrons. And you'll see that that moves all of the fields across. So it's much easier now. I can just select ID because I don't need that one and just move it back to available fields.

Now the other table that I want some information from is the Tour table. And I pretty much want all of those fields. So again I'm going to use the double chevron to move those across. And that is pretty much all I need. And I click on Next.

Now one of the key aspects of this is that this report is going to be grouped. So the first grouping level will be country. So for each country there will be a section of the report and within that section all of the trips for that country will appear. So I'm going to make sure I have Country

selected and I'm going to click on the chevron. Now within Country there will be a trip code. And the field for that is the code field. So that's going to be my next level of grouping. So I'm going to click on the chevron again and there we go. So I now have two levels for grouping and click on Next.

Now the next step is to look at the sort order. And the sort order relates to the detail records. And in each trip the detail records are the tour records. So I'm going to arrange those by start date ascending.

And we might as well look at the summary options while we're here. Now we're going to use one of these in our report. Now I want to highlight the lowest adult price for each trip. So I'm looking for the minimum of the price adult field and I'm going to click on OK. So those are my selections. I'm going to click Next and now I need to choose the layout. And you can see here that we have kind of a little preview, depending on which layout we've selected. So currently we're viewing the stepped layout and this is the first grouping in the first column, second grouping in the second column, so on and so forth. Block is the same layout but instead of a diagonal effect everything is blocked across. And this wouldn't be suitable in this case because at the second level there is a lot of information. So I need a wider column.

And we then have the outline option. And this is similar to stepped but you have the headings above the detail records. You also have an option here of choosing the orientation. So portrait or landscape layout.

Now I'm going to stick with the outline layout but I am going to select the landscape orientation. And again note that we do have this option at the bottom, adjust the field width so all fields fit on a page. Now I'm going to keep that checked but I am aware that I am probably going to have to do some reorganizing and rearranging. But I am going to keep this checked for the time being.

I'm going to click Next and I now need to name my report. And I'm going to stick with my naming convention. So RPT for Report, Country Trip Tour List.

And now let's preview the report and see what that looks like. So I'm going to click Finish and here is the report.

Now we have a few issues just here. Now the main issue here is that although Access has produced a report its got several things in the wrong place. So we have at the top our first grouping level, which is the country. So Costa Rica in this case. Then we have our second grouping underneath which is the code or the trip level. And our multicolumn detail records are underneath. And the problem here is that the detail doesn't relate to a tour. It's the detail related to a trip. So for instance we have the trip name Costa Rica repeated for each tour. But we should have the trip name up here at the trip grouping level. So we should have code CRM and then the trip name should be up here and not repeated in the detail of the record. So we need to change the design so that those aspects are included at the trip level and not the tour level. So we need to

go back into Design view, so I'm going to close Print Preview and let's take a closer look at this structure.

So let me just move that in very slightly so we can see a little bit more of our report. Now we have a report header at the top and a report footer at the bottom. We then have a page header and towards the end there a page footer. And these are repeated on each page of the report. And you can see now that the page header is empty and the page footer contains our two textboxes which hold our expressions that we put in in the last module.

We then have a country header, which is our first level of group which contains the label Country and the country. We then have a country footer which gives a summary in terms of the count of the number of records, but it also has a minimum which would be the minimum adult price for a country. And really I don't see the need to have a minimum price for a country given the range of trips and prices for each country. So I'm going to remove this summary information and it's fairly simple to do. Just select the fields and delete, delete, delete. And of course you can also close up the space if you don't want any additional space underneath country.

Now the summary information in the code footer I'm actually going to change that. So for the moment I'm going to take that out, so I'm going to delete it, but I do want to see the minimum value for each trip. So I'm going to leave that in there.

Now the main issue is that in the detail section just here we have a load of information that relates to the trip and therefore to all of the tours for that trip. And what I need to do is move that information into the trip level. So I'm going to put it into the code header. Now if you look at the code header currently the only specific field for a trip there is the code, but there is a whole row of headings and these are the headings for the detail record. So it's important to leave them in position. So what I'm going to do is I'm actually going to make this code header a little bit bigger and I'm going to select all of these headings, so I'm just holding down my Control key and I'm going to move these down. And then I'm going to choose the fields in the details section and move them into the code header.

So the first one I'm going to take is description. That shouldn't be down there. We're going to move that into the code header and we're going to make that wider. We're going to make that the width of the report, like so. Now the trip name that doesn't need to be down there. We're going to move that up to here and that code field definitely doesn't need to be as wide. Now I'm going to go through and reorganize some of these other fields so please join me back here in a moment when I've done that.

So I've done some more work on the design and you can see here that I currently have the description field highlighted in the code header. And if we go to the property sheet and just scroll down you'll see towards the bottom we have this option just here, so can grow, and that's set to Yes. So in situations like this one where you have a description that could be quite short or a really, really long paragraph it's really difficult to know how much space to allow in a report

layout. So if you set can grow to yes but set the height of the field in the report to just one row in height what Access will do is adjust the height of that field each time it's used to accommodate the text.

Also don't forget that within Access you have lots of tools to assist you when it comes to working with your layout. So things like the grid and rulers and alignment tools.

And you'll also see down here in the code footer I've applied some formatting to the minimum price. And you'll see that in a moment when we look at the report that the minimum price is going to be highlighted. It's really going to stand out from the rest of the data in the report.

So let's do a preview. Let's go up to View and let's go to Report view. And there we go. You can see our top level group is Costa Rica. We then have our trip code and the trip name. We have the duration days, the activity level, our price range followed by our description. Then we have our start, our price adult and our price child. And as I said, you'll see that the label for the minimum price is highlighted. It stands out very slightly. It's in bold and it has a border around it.

So that's a much nicer way of viewing the report. It just makes it a lot easier to understand and to read.

So the point I'm really trying to get across in this module is that you really need to think about how you want your report laid out and then jump into Design view and rearrange those fields. Delete out what's unnecessary and move things into different positions.

So it's worth having an experiment and a little play around until you feel completely comfortable doing that.

So that's it for this section. Please join me in the next one.

Video: Practice Exercise 08

Deb: Hello again and welcome back to our course on Access 2019. We're now on to Exercise 08 and Exercise 08 is a little trickier than some of the earlier exercises.

What I need you to do is to create a report and the general approach is going to be the same as the one used in the preceding section to create a structured report for the Esprit de Tour company. And this one is for the Night Movies database.

Now you might have a different amount of data recorded to me. So I have a version of my answer with four movies in it in the exercise folder.

I only want you to include the movies that have actors and their roles recorded. And for each movie and for each actor and role I would like you to respect the structure of the movie and actor and present the data in sentence form like this.

So looking at the first line it says, The Shawshank Redemption was directed by Frank Darabont, released in 1994 and runs for 142 minutes.

Now getting that sentence to look as neat as that you will need to do it in a very specific way, which I hope you're going to be able to figure out. Once you have figured it out you'll have no problems producing the lines that list the roles for the players. So again underneath here we have Morgan Freeman who was born in the U.S.A. on the 6th of the 1st 1937. He played Ellis Boyd "Red" Redding. So this is a different way of presenting the data and it is a little bit of a challenge, which I'm hoping you can rise to.

In addition to that I would like you to use a theme in the report and one that we haven't used before. And I will say it's always good idea to choose a theme early on in the process. If you don't do that you might do a lot of the sizing, changing fonts, realignment, and then when you apply a theme all of those fonts in that alignment is going to change again. So I would say if you are going to add a theme do it early on in the process.

Now my answer is in the usual place, Exercise 08. I will see you in the next section.

Section 16 – Printing

Video: Printing and Print Properties

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to take a look at printing. And we've mentioned printing once or twice already but there are a few other options when it comes to printing.

Now before we do that there is a feature of Access that's useful for documenting a database you're designing and I use this feature as a basis for some discussions on printing.

So if we go up to the Database Tools tab you will see that we have an option for Database Documenter. And this is a really useful way of documenting not the data in the database but the design of the database. Now when you open this there are a number of different tabs which give you access to the main objects in your database. So we have tables, queries, forms, reports, so on and so forth. Let's jump back to that Tables tab and let's select the Trip table.

Now if I select that table and click on OK what I see is a definition of the design of the Trip table. And that's a little bit hard to see at the moment so I'm going to zoom in and you'll see as I hover my mouse over the piece of paper I can click just to zoom in. So you can see at the top I have the properties and this is the properties of the trip table itself. And then I have the individual columns. and I have a full set of information about each column. I have navigation buttons at the bottom to move through the different pages. And as I move through I have the details of the relationships between the trip table and other tables in my database.

Now let me close this Print Preview down for the moment. Let me choose from the Navigation pane the Trip table and go back into Database Documenter and you'll see that it jumps me straight into that Tables tab. So essentially whichever object you're clicked in in your Navigation pane it will jump you to the corresponding tab.

And I have an Options button in the bottom righthand corner there which lets me choose what I see in the definition. And given that when I go into that definition if I wanted to print it out I could use the Print Preview tab to set the size, the margins, the orientation, all of these options we looked at in a previous module.

And when I click on the Print button I have a number of options for printing. Now mine's defaulted to my printer but if I click that dropdown you can see I have numerous other different options. So if I wanted to print a PDF I could do that or print to a Microsoft XPS document. I could send to OneNote or I could even send to something like Snagit which is an application that I have installed on my PC.

Now let's suppose I was going to send it to OneNote. I have a Properties button next to the Name field and if I click on that it's going to show me all of the options I have for that particular

selection. And you'll see here for OneNote there really isn't a great deal of options. We can select our orientation. And we do have a few advanced options in here but not too many. So the properties or how many you get or how many you can define will really depend on what you've selected from this dropdown. So if I was to select my printer and go into Properties you'll see I have an additional Paper Quality tab and I also have an Advanced tab and I have a few more settings I can adjust in there.

Now if I wanted to print to a PDF and click on Properties, again I could jump down into Advanced and I just have a couple of things that I could do there. But if I click on OK and select OK again it's asking me to save. That's because I'm about to produce a PDF file of my definition. You can choose anywhere to save this so I'm going to select the course files folder and I'm going to give my file a name, tblTrip.TableDefinition and that is going to be a PDF document and I can click Save. And Access is now printing that to a PDF file.

Now it's not going to open it up automatically so if I want to open that I'll need to browse to that particular folder and you'll see there it is at the bottom and I can double click to open that file. And there we go. We have our nice shiny PDF. I'm just going to close that down.

So all fairly straightforward so far.

So in this module so far I've introduced you to the Database Documenter and we've looked at the main features of printing. Now there's a couple of other things to know about so let's return to the question of regular printing. So let's close out of this Print Preview.

Now if we're talking about just regular printing, if I want to print all of the entries in the Country table for example, let's click on the Country table in the Navigation pane and what I'm going to do is on my Quick Access Toolbar I'm going to click the dropdown and one of the options that we can add very quickly and easily is Print Preview. So let's select that and click on Print Preview. And you can see there I get a print preview of all of the countries, all of the data in my Country table. So let's close down this print preview.

Now there is one other way that you can print and that is by going up to File into the backstage area and you can see we have a Print option just there. And we have three options in here. The first one is Quick Print and what that does is it sends whichever object you have selected directly to the default printer. So it doesn't allow you to change which printer it's going to or adjust any of the settings. It's just going to send whatever you have selected to your default printer with the default settings.

We have a Print option. So again we've been in here previously. This will allow you to select a printer or print to PDF, print to XPS, send to OneNote, whatever it is that you want to do. And you can set the print range. If you don't want to print all of the pages you can choose to print from a specific page, to a specific page. And you can also define the number of copies and if you want it collated or not. Let's cancel out of there, go back into Backstage and into Print.

And then finally you have another way of getting to your Print Preview screen. So let's just go back and let's open up our trip maintenance form. And let's jump into file, down to Print and let's go to Print Preview and see what that looks like. So there you go. It's showing a print preview of the trip maintenance form with all of the data in place. And I can just go in and set my options and print that out.

So that's printing. All fairly straightforward, particularly if you've used other Microsoft applications. The options are not that different.

In the next module we're going to discuss Yes/No, OLE Objects and hyperlink data types. So I will see you over there.

Section 17 – More Data Types

Video: Yes/No, OLE Objects and Hyperlink Data

Deb: Hello again and welcome back to our course on Access 2019. Earlier on we looked at the available data types, which are available to Access desktop databases, and we've been using most of them throughout this course so far. But there are still a few that we haven't looked at and in this section I'm going to explain two or three of them, which we're going to use in the Esprit de Tour database.

Now I just want to remind you, don't forget about the Help topic which explains all of the data types. And the one that we're going to look at first is this one here, the Yes/No data type. And this is used to denote a true or false condition. So for example, instead of using a zero value in a child price to denote that a tour is adults only we're going to introduce a Yes/No field. And a Yes/No value of Yes or true will indicate this is an adults only trip.

Now when you're adding a field to an existing table you can just jump down to the bottom and add a new field to the end of the table. It doesn't make too much of a difference what order or what sequence you have these fields in because the information is still accessible. However, if you do have a particular need where you want to specifically place a field in this list, I'm just going to show you how you can do that.

So if I want to place a new field above Price Minimum I can select that row, right click and select Insert Rows. And you see that I now have a nice gap where I can put in my new field.

So I'm going to call this field name Adults Only. It's going to have a data type of Yes/No. And I'm going to add a description. Is this trip for adults only? Now if you glance down to the field properties you'll notice that the default value here is No. And when I add a new field one of the things that I need to do is make sure that any existing data is set up with the appropriate yes or no value. So what I'm going to do is I'm going to go into Datasheet view, I'm going to select Yes to save the table and I'm going to go through the existing trips and tick the ones that are adults only. Now because I've got my fields running off the page I'm going to need to use my scrollbar to see that adults only column. And what I'll do to make this slightly easier in this exercise is I'll just shorten the description field and we can now see everything on there. So I know that Iconic Italy adults only. I also know that the Sample Sri Lanka is adults only, as well as the Western U.S.A. Contrast. So I'm just going to select the checkboxes for those.

Now a couple of things to bear in mind, one is that if I've created a form that relies on identifying adults only on the basis of a zero child price in a tour record then I'm going to need to go through and change the way that's set up. So I may need to go through the existing database and update anything that's already there in line with my new definition of an adults

only Yes/No field. I might also need to change queries to make sure that adults only is one of the fields in the select list for any queries that are using this information.

Now let's look at an example of the sort of change you'll need to make.

So we now have a new field in the trip table and we need to make sure that that can be maintained on the trip maintenance form. So I've just opened the trip maintenance form here in Design view. Now the first thing I'm going to do is to check that record source. So if I go to the property sheet I can see the record source is tblTrip, which means all of the fields in the trip table. So I don't need to worry about changing the select statement but I'm going to need to put a control on this form so users can manage the adults only information.

Now if you look up to this Controls group, and we've been in here numerous times already, let's click that dropdown and you'll see that one of the controls is a checkbox and it's the one there in the first column. It's the big tick. So let's select it. I'm going to come over to my form and I'm just going to draw a checkbox. And I can see that my label and my checkbox are overlapping so I'm just going to do a little bit of rearranging. So let's move that along and move that down slightly.

Now you can see here that the checkbox control has been given a default name. And you can see that it doesn't have a control source, so it's currently unbound. So what I'm going to do is I'm going to bind it to adults only. And I'm going to change its name and then I'm going to find its label and change the name. I'm going to change its caption. Now one last little piece of formatting I want to do here is I can see that adults only doesn't quite fit in this label box so I'm going to move my little checkbox over slightly and just make this a little bit wider, like so. So let's now take a look at what this is going to look like. Let's go to View and go to Form view and you can see there I have an adults only checkbox. And I can see here Grand Canyon Family Rafting Adventure isn't adults only but if move to my next record which is Iconic Italy you can see that that box is checked. So that's fine.

Now another point that's worth mentioning here before we move on is that if you are validating use input so that if a trip is adults only you would want to check that there are no child prices specified when people enter or amend the tour information. Correspondingly you'd want to say that if it isn't an adults only trip that child prices were specified.

Now the next data type I want to look at is the Attachment data type. So let's suppose that the Esprit de Tour company makes a full trip dossier on each trip they offer. And the dossier is presented as a PDF file that they have emailed or picked up from the branch.

So let's go back into our trip table, into Design view. So let's add a new field in here. So the field name is going to be Dossier, the data type is going to be Attachment and let's add a description. And you'll see at the bottom in the field properties this isn't a required field. So it might be that

in the early stages of a trip a dossier hasn't yet been produced or isn't available so it's not required but it is a nice to have.

So now having added that I'm going to go into the Datasheet view for all of the trips and again you may need to scroll across in order to see the dossier column and there it is. And note the paperclip which denotes that this is a field that has an attachment or potentially has an attachment.

Now I've actually prepared a dossier for this first trip and you'll see currently with zero next to all of them we don't have any attachments. So I'm going to double click in this first trip and you can actually add multiple attachments. Now we're just going to add one so I'm going to click on Add. I've browsed to the folder where I have my dossiers stored and there it is, Esprit de Tour GCA Dossier PDF, and I'm going to say Open. And let's click on OK. So you can now see that that's displaying as having one attachment. So I've successfully attached the dossier to this trip. I'm going to close down the trip table.

So once again I'm going to go back to trip maintenance and put in a provision for a user to access to that dossier. So I'm going to go up to my controls again, I'm going to click the dropdown, and the one that I want this time is the big paperclip icon which says Attachment when you hover over it. So let's select that. And then I'm going to draw my attachment. And again currently there's no control source so this is unbound. I'm going to change the name of that control to Dossier. And the control source in the dropdown is Dossier.

Now for formatting I just want to check the border style because I don't want a border around this. So I'm going to change this to Transparent. And for the label I'm going to call it Dossier and I'm going to give it a name of Dossier label. I'm also going to again move these fields around very slightly. So this can come in a little bit so it doesn't overlap.

And what I'm going to do here just to make sure everything is lined up is I'm just going to align everything on that top row. So let's select all the objects and align to the top. And there we go. So what you can see now is that for this particular trip we have a dossier and we have an attachment just here, a PDF.

Now I'll just warn you in this example I haven't prepared a full trip dossier. I've just put the trip title at the top and a short piece of text but let's double click on this PDF and you can see there it brings up the PDF file and if I click Open you can see there is the dossier open in PDF view.

So in this section I've demonstrated a couple of other data types but there are three others and you can see here in the Help page I have them listed out. So the first one is OLE Object Data type and this is really quite specialized. It's used for attaching an Excel spreadsheet or maybe a Word document where you need to have an element of interaction. A hyperlink is another data type and that's really to be used to link to a file on the internet or intranet or on your PC. So for

example, you might create a field linking to the tourism site for one of the countries visited or to one of the places visited on the trip. As always dive into Help for more information on those.

That's it for now. I will see you in the next module.

Section 18 – More About Forms

Video: Form Controls

Deb: Hello again and welcome back to our course on Access 2019. Now so far we've spent quite a lot of time looking at the design of forms and there are many types of control that we've used already but also many, many other types of control that we haven't yet looked at. And we're going to look into this a little bit further in this module.

So the first thing I'm going to do is open the trip maintenance form in Design view. Now we're going to jump straight up to this Control box and explore some of these controls in a more detail, the ones that we haven't looked at so far.

So this first one here is a textbox. We've seen how that works. The next one is a label. But the next control we haven't really delved into and that is a button. I just want to point out that there are some of these controls that we're not going to cover on this course. For example, the next one along, the Tab control. What this will allow you to do is set up tabs on a form with a number of tabs on it. So for example, in trip maintenance if you had so much information to maintain that it wouldn't fit all on the screen you might decide to have different tabs running across the top and that is the control you would use for that. The next one along is a link or a hyperlink control. And this will allow you to put in a control which allows you to have quick access to things like webpages, websites or even files which are on your PC. The next one along is the web browser control and this name really tells you what this does. Now I'm not going to go over it but it is useful to experiment with if you are linking to other web sources. The navigation control, we're going to talk about this quite a bit later so I'll leave that for now. And then we have the Options group and that's what we're going to look at in this module.

So what we're going to do is that for each of the trips we're going to indicate the level of accommodation for the trip. And in this particular database, the Esprit de Tour database, all trips have a three, four or five star level of accommodation. So we're going to introduce an option group to display the level of accommodation on any of the trips.

So the first thing we're going to need to do is to add a new field to the trip table. Now Esprit de Tour only deal with three, four and five star level accommodation but one thing you can do is that you don't have to store three star, four star, or five star somewhere. You can essentially map and say my values for accommodation level are going to be one, two or three. So one would be three star, two would be four star and three would be five star.

So let's introduce first of all a new field into our table. So accommodation level is the field name and the data type is going to be number. It's going to be numeric. Now we glance down to the field properties we're going to say the field size is going to be byte because it's going to be a very small number. The default value will be one or three star in this case. Is it a required field? Yes, it is. Is indexing required? Yes and duplicates are of course okay.

Now users are going to be able to access these options via an option group. So there shouldn't really be any need to validate this data. It's basically going to be impossible for them to add anything outside of the options that we give them. So in this case one, two or three.

So there is the change to the trip table. And of course existing data will be invalid so I'm going to need to go through that process of closing down, saving the table, and forcing it to accept the fact that none of the existing trips have that value in there. And then of course I will manually go in and put those values in to make the data valid again.

Okay so I've closed down that table now and let's go in and open up trip maintenance in Design view. So the first thing I really need to decide here is where I'm going to put that accommodation level, that little options box. So I'm going to make a little bit of space next to duration just here. So let me do that and I will join you back here in a few moments.

So there we go. I've opened up a small bit of space next to duration. I'm now going to go up to my Controls group and I'm going to add or select the option Control Button. And I'm going to draw an Option group. Now the option group will contain a set of option buttons and each will correspond to one of the options available for accommodation level. So the default name for this option group is Frame 26 so I'm going to rename that. And of course the control source will be accommodation level. And as you can see it has a label just lurking behind there and I'm going to change the name of that. And I'm also going to change the caption. So now I need to do a little bit rearranging.

So now what I need to do is put my three option buttons in there. And if I go up to my Controls group again and just click that More dropdown this one just here is my Option button. So let's select it and I'm going to put in my first option button. And now I've added that if you look over at the property sheet you'll see that it automatically gets assigned an option value of one. That's the default when you add an option control. If I was to add another one it would have a value of two, another one the value of three, so on and so forth. So let's add two more option buttons. I'm going to do it in exactly the same way. And as I said, you can see this one has an option value of two. And let's add our final one.

Now looking at these option buttons as they currently are it's a little bit hard for people to tell what these are at the moment. So I need to go in and I need to assign three star to option 28, four star to option 30 and five star to option 32. I'm also probably going to want to do some aligning and tidying up a little bit. So let me do that and I'll join you in a few moments.

So I've done some basic tidying up there and you can now see my options are a little bit clearer. So we have three star, four star and five star. So now if I open tblTrip and go across to the accommodation level you can see that I've already added a few in here but I could go through and add the rest of them. So I'm going to be quite random in the way that I'm doing this. So I'm entering in either one, two or three. Now if we go back to trip maintenance and take a look at the form you'll see here for the first record, Grand Canyon Family Rafting Adventure accommodation level three star is selected. Let's move to the next level. We have four star, five star, five star, so on and so forth. So I can see that that's working nicely.

So that's how you can set up and use an Option group on a form. Now before we leave this module let's go through some of these other controls that we haven't yet looked at.

So the next one in the list is Insert Page Break. So that pretty much does what it says on the tin. It will allow you to insert a page break into a form. The next one is Combo Box and we've already done a few of those already. The next one along is Align and this can be quite useful for separating up categories of information. The Toggle button is a good alternative for a checkbox. And the List Box is an alternative to a Combo Box. Now in general combo boxes take up less space on the form and can be useful when you allow people to enter values that are not part of the list contained within the combo box. And the list box differs from the combo box with regards to how it looks on the screen. So with a list box you'll get those little rollers which will allow you to cycle through your options whereas a combo box you get a dropdown, more like a menu system and you can then select your option from the menu. So that's the difference between the two, although they are reasonably similar.

After the List Box we have the Rectangle which again is useful for grouping. And let's click the dropdown. The Checkbox we've already seen in action, we've already used that one. We have an option for an Unbound Object Frame. And this lets you put a frame in place. So for example, you might want to put part of an Excel spreadsheet into a form. And when you use this control you'll get an unbound object. And all that means is that you haven't bound it to the object yet, which in this case might be the Excel spreadsheet. The Attachment one you've already seen. The radio button you've already seen. We used the Subform/Subreport quite extensively earlier in the course so you've already seen that one as well. We have a Bound Object Frame and we also have the ability to put an image onto a form. And then finally we have a Chart Option. So if you wanted to add some kind of chart to your form you could also do that from here.

So that's a really quick review of the remaining form controls and I would suggest if you do want to get into a little bit more detail as to what exactly each of these do I would suggest the Help page as always.

That's the end of this module. I will see you in the next one.

Video: Form Themes

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to continue looking at form design but we're going to concentrate on the stylistic side of design.

Now I could spend a long time going into lots of detail on design but that's going to take a really long time so what I'm going to do in this module is really just concentrate on the principles and in particular we're going to look at themes.

So themes are a great way of achieving a consistent approach to styles. And the set of themes available in Access 2019 are compatible with the themes that are available in other Microsoft Office products. And why might you decide to use a theme in Access? Now that's a particularly useful point because if you're preparing documents to go along with your database you might want a consistent theme running through everything, your database and all the surrounding documentation. So it's really good that these are consistent across all of the Microsoft applications.

Now when you first create a database a default theme applies. And Access has a number of standard themes that you can also apply to your database.

So if you take a look at the top bar we have Form Design Tools and we're currently clicked on the Design tab. And we have a Themes group over on the left hand side. And if you click that Themes dropdown you'll see a gallery of different themes that you can use in your database. So you can see I have the one that's currently in use, I have some custom themes, and then I also have some standard Office themes.

Now one thing I will say is with these themes because they do contain different colors and different fonts depending on which one you select you might find that the font increases dramatically on your form, which will then move things outside the bounds of the boxes that you've put them in. So this why I would always say if you're going to use a theme apply it fairly on in the process of creating your database so that you don't have to go in at the end and rearrange lots of things.

So if I just show you a theme in action, so let's just select this one. You can see there the font has changed. This one's actually not too bad. Let's go for another one. So let's try something like that. Now this one does have bigger fonts, so you can see what I'm talking about there. For example, accommodation level I might now need to make that box a little bit bigger to accommodate that bigger font size.

Let's go back to our Themes dropdown and I'm actually going to apply this one here, Facet. Now if I wanted to make this theme the default so that every time I created a new form or an object in my database I can right click on the theme and I have this option here, Make this theme

the database default. So if you don't want to have to keep coming in and applying that theme to each new thing that you create you can set it as the default.

Now as I mentioned, themes carry with them a set of standard colors and also fonts. So in the process of changing my theme not only have I changed the colors but also the fonts as well. So if I want to check what fonts in use I've just got one of the fields highlighted. If I click on the Home tab you can see the font in use in the text formatting group is Trebuchet MS.

Now if I look at a particular part of the form here, so for example this form header section, and just while we're on that if you want to select a specific part of your form you can go up to the Format tab and you'll see in this Selection group you have a dropdown which will allow you to select a very specific part of the form. So I can select from here Form Header.

And now I've selected that form header if you look in the property sheet you can see that there is a background color set and that is Text 2, Lighter 80%. Now Text 2 is one of the standard theme colors. And Text 2 will be different in this theme to another theme. Now given that Text 2 is selected let's just go in and take a look at those standard theme colors. So I'm going to go to the Design tab and given that we have the Facet theme selected I'm going to go into Colors and I'm going to jump down to Customize Colors and there you have the standard colors for that theme. So there are a dozen or so different colors that we have here.

And you can see here a little preview on the righthand side of what colors are being applied. So you can see here theme colors, Text Dark 1, Text Light 1, Text Dark 2, Text Light 2, and then we have some standard accent colors.

Now if I wanted to change those theme colors I could do that from here and I could essentially save my own color scheme. So this is really the first step towards creating your own custom theme.

So sometimes it's useful to be able to create your own theme in order to get your database to match with branding guidelines or maybe any templates that you have.

Now similarly with this Facet theme if I just cancel out of there and go up to Fonts, if I wanted to choose my own font for my custom theme I could choose any one of these alternatives in the list. So let's go down to Customize Fonts. Now you can see here that my default, my heading font is Trebuchet MS and my body font is the same, Trebuchet MS. If I wanted to select a different font for my theme I can just click the dropdown and select whichever font I like from this list. And that will essentially put me another step closer to creating my own custom theme.

So essentially you might select a theme to use and then you might go in and modify those colors within that theme and also the fonts to create your own custom theme.

Now with the Esprit de Tour database I'm going to stick entirely with the defaults in the Facet theme font. And I'm going to explain over the next few minutes how that applies to different parts of the database.

So let's look again at the form header section. If you remember the background color is Text 2, Lighter 80%. Now if I click in the background color section and click the ellipses it brings up my palette of colors. And you can see it's divided down into two sections. So Theme Colors and Standard Colors. And you'll see underneath Theme Colors we currently have the theme or the color in use highlighted in that red box. And if I hover over you'll see it's described as Text 2, Lighter 80% blue-gray. If I go down to the next one you'll see that's Text 2, Lighter 60%. And you'll see that I can use any of the theme colors. And one important point about theme colors is that if I change the theme the object will change accordingly. However, if I give this theme a standard color, so a non-theme color, select something like, let's just do this yellow. Now if I change the theme, so let's suppose I change from Facet to Ion notice that many elements change. So the font changed but that background color has stayed the same. It stayed yellow. So the theme that I've applied has applied to everything on the form apart from that standard color that I set. So the point I'm really trying to make here is that sticking to the theme colors will allow you to achieve a high level of consistency.

So I'm going to put my theme back to Facet and I'm going to go back into my background color and I'm going to put that back to what it was originally. So Text 2, Lighter 80%.

Now let's select something else. Let's select the details section and you'll see here it says Background 1. And let's also change this to Text 2, Lighter 80%. And we can also do the same thing with the form footer. So we're going to go back in and Text 2, Lighter 80%. So let's now take a look at what our form looks like. So I'm going to go to View and Form view and you can see that it gives the form quite a different appearance. And it looks a lot better than before. It's a lot easier to read and easier to pick out the data.

Now once you've done this you may have to kind of reassess everything on your form. So I can see here accommodation level. This box probably needs to be pulled out a little bit just so I can see the whole of that word. So let's go back into Design view and I'm going to get accommodation level. I'm just going to drag that out ever so slightly and let's do one more. Check in Form view and there we go. That looks a lot better.

Now let's go back into Design view one more time and let's take a look at the individual fields. So let's click on Trip Name. Now let's jump into the Format tab and you can see there background color is Background 1. And of course if I select the ellipses I can go through and select a different theme or standard color if I wanted to.

So generally speaking I can apply the same principles to each of the controls on the form.

Now a slightly different example. If you take something like text, so let's click on this label just here, Trip Name. The important color here is the foreground color or the fore color in the property sheet because that controls the color of the text. So currently the foreground color is Text 1, Lighter 50% but let's suppose I wanted to use a really light color there. So I'm going to say, let's say white Background 1. So let's now take a look at that in Form view and there we go. Now not particularly in this case but sometimes using white for a label will work really well, but again it is personal preference.

Now let's jump back into Design view and let's take another one of the controls. So let's for example click on this description control and jump up to our Form Design Tools, the Format tab. I have a Shape Outline option just here. So I could choose to again select a different theme color or a standard color. So I'm going to select this one just here, Text 2, Lighter 40%. And I could also choose to change the line thickness or the line type. So let's do both of these just so you can see. So I'm going to make the line thicker and let's go crazy. Let's do a short dashed line. Now this isn't going to look too great but let's just jump into Form view and there you go. You get an idea of what that looks like. And of course you could apply that to multiple controls if you wanted to.

So what I'm trying to illustrate here is there are many, many possibilities when it comes to applying themes, colors, fonts, and generally controlling the overall look and feel of your form.

Now again let's jump back into Design view. Now we've mentioned colors already and the idea of creating custom colors. And you'll see from the Colors dropdown that there are sets of standard colors you can apply to a theme. So for example, if I was to take this red-orange set for instance, the red-orange color set, I can click in that to apply it or I can go into Customize Colors and you'll see all of the colors I get are of that standard sample set. And I can go in and I can change my accent colors until my heart's content.

Now it's worth noting that you can do exactly the same kind of styling to reports as well. So it's not limited to just forms. But I'm going to leave you to have a play around with those and to experiment.

That's the end of this module. I will see you in the next one.

Video: Navigation Forms

Deb: Hello again and welcome back to our course on Access 2019. We're certainly starting to get a more comprehensive database now and we've already put in place some maintenance functionality to really get Esprit de Tour started.

Now at this stage we have a single .accdb file. And for someone to maintain it they would need to open the .accdb file and use the forms, queries and tables we've provided in order to do the maintenance of the information. Now so far there are really two types of information, the country information which is sort of reference data, a list of countries where we have trips visiting, and we have the information about the trips themselves. Now the maintenance of these two chunks of information could be done using two forms, the country maintenance form and the trip maintenance form.

Now someone could maintain the database having access to just those two forms without having direct access to all of the tables and all of the queries. And in fact giving someone the .accdb file as it is with the Navigation pane freely available would be dangerous because if you imagine if someone didn't know what they were doing they could open up one of the tables, change the definition of a field, delete some data, change a query, and do quite a lot of damage. So one important thing to look at and start to work on is how we're going to present this to users. And thing you would do is to separate out the data from the form itself so that different people could access the same data.

Now that part is really a step further away than where we're going in this module. What I actually want to do here is I want a straightforward way that somebody could use this .accdb file without giving them access to all of the objects that are in the underlying infrastructure of the Esprit de Tour database. And the way that we're going to do that is we're going to create a navigation form.

So let's jump up to Create and you'll see we have an option in the middle here for navigation and there are a few different options that we have, so about six navigation forms that we could create. And we're going to use the top one, Horizontal tabs.

Now the principle here is that in the navigation form we're giving users access to the forms they need to use. And in this case with the tabs they access the forms not by using the navigation pane on the left but by clicking on the tabs of the navigation form.

So I have two tabs that I need to give users access to so I'm going to click in the Add New area and type in the name of the first form. Now when I've typed in the name for the first form I'm going to press the Tab key and I get a second tab. And I'm going to call this one, press Tab again. Now I only need two but I'm going to leave that Add New Tab there for the time being and we'll come back and deal with that later.

Now let me go back to the trip maintenance tab and we just click on it to select it, and let's bring up the property sheet.

Now the first thing I really need to do is to make that tab a little bit wider because currently we can't see the full name of trip maintenance. So in the width lets try making that about 50% wider, so 1.5 and that looks about right. And now what I need to do is essentially define what is called the Navigation Target. And that essentially means when I click on that tab which of the objects do we navigate to? So let's click in that field, click on the dropdown and what we want to appear is the trip maintenance form. Now in order to keep some kind of standard going I'm going to change the name of that control. Now let's do the same thing for the country maintenance tab. And that one also clearly needs to be a little bit wider. Okay. So now let's close that form and save the changes and the name is frmNavigationForm and now let's take it for a test drive. So let's click on the panel to open it up. So there's trip maintenance and there's country maintenance.

Now as you can probably see there's quite a bit of formatting still left to do. I might want to make things consistent across all of my tabs. So for example, I didn't change back those theme colors that I set. So I set that red-orange color scheme. Now I'm going to change that back to the regular theme colors. So let's go back to Design view. I'm going to go to Themes and I'm going to put it back to Facet. Let's go back to Form view and there we go. Things look a little bit more consistent now.

Now one other thing I'm going to do here is I'm going to make the forms similar size. So currently you can see that the trip maintenance form is a lot wider than the country maintenance form.

So I've made an additional few formatting changes in here. So I've made that form wider so that it kind of matches the trip maintenance form. I've also added a form footer and we have an expression in there of date. So we're going to have our date contained in the footer of this form.

Now let's open trip maintenance in Design view and what I'm going to do here is just remove that shape outline that we added earlier because that's not looking too good. So I'm going to say line type transparent.

So let's now close the trip maintenance form and also close the country maintenance form. And let's go into the navigation form and let's look at that in Form view. Now that looks pretty good. There might still be some formatting changes that I might want to make. So for example, those two tabs at the moment are in green and they really kind of stand out from the page, which you might like but you might want to change it to maybe a blue or gray hue so that it fits in with the overall color scheme of the form. And I'm going to do that in a moment.

Now one thing that I can see that I do want to do here is I want to change this header on the navigation form. So instead of saying Navigation Form I want it to say Esprit de Tour. So let's

jump into Design view because that's fairly simple to do. We can go up to navigation form, Esprit de Tour, and I'm going to widen that out. And I am going to center align that text. And into Form view and there we go.

Now I need to just finish up with a couple of other very fundamental things. And for the first one I need to go into Options. And I'm going to jump down to the current database page and we're going to look at this, the Display Form section. So if I click the dropdown this is where you can define which form opens when you open the database. So when I go into my database I want users to open this database and see the navigation form. So I'm going to make the navigation form my display form selection.

Now earlier on I said that I might want to hide the Navigation pane. And you can do that again from this section. If we scroll down you can see here we have a section called Navigation and currently Display Navigation Pane is checked. So if I uncheck that that is going to remove or not display that navigation pane at the side. I'm going to click on OK.

Now sometimes you'll find that some changes that you apply won't take affect until you close and reopen your database. So I'm going to click on OK and I'm going to reopen. And there we go. When I open up this database again it jumps straight to the navigation form and you can see that I don't have the navigation pane displayed on the left hand side.

Now a couple of other things that you could do here is you could collapse up the ribbon. And in that way you are narrowing down what people are able to do with this form. Now in reality it is quite easy to get round many of these things. So for example to see the navigation pane again if you just press F11 on your keyboard that will bring that back. And for some of those options that we changed in the backstage area if somebody knows what they're doing, they know their way around Access they can quite simply go in and change those back. But you could if you really wanted to even suppress that, but you would then need to start looking at programming code. Again, that is outside the scope of this course but just be aware that you do have those options.

So that's it for now. I'm going to go in and I'm going to change those tab colors and then I will see you in the next section.

Section 19 – Exporting

Video: Exporting an Access Database

Deb: Hello again and welcome back to our course on Access 2019. Now in this module we're going to take a look at how you can export an Access database.

And quite often you'll deal with data outside of an Access database. So for example, we've looked in previous modules at importing data from things like text files. So I may need to link to tables in external databases. Now much of the linkage is outside of the scope of this course but I am going to briefly cover some of the export options.

Now with the Esprit de Tour database we want to provide some or all of the data to someone else. And we're going to take a couple of examples.

So supposing I want to use the country table I've built up in my database. So let's select the country table, let's jump to the External Data tab and in the Export group we're going to look at this option here, Export to Excel. And up comes one of our favorite wizards. So essentially what it does is it creates a default file name with the default Excel file extension. So we have tblCountry.xlsx. And if I wanted to change the location where this is going to be exported to I can click my Browse button. It's showing me what the file format is going to be, so Excel. And then I can choose to export the data with formatting and layout. So I'm going to click on OK and at this stage I can choose to save these export steps. So if I wanted to do this again with another table, if I've saved the export steps it makes it a lot easier because it means I can just go my ribbon and click on Saved Exports. And click on Close. So very, very simple to export to Excel. And if I wanted to now I could browse to that folder and open my table as an Excel file.

Now another option we have is exporting to a PDF or an XPS document. And this again pretty much does what it says on the tin. It's very similar to what we did before. So it will export that table out into a PDF or an XPS document. And an XPS document is really Microsoft's version of a PDF file.

We also have the ability to email. So I can click on this and I can send my table as an email to somebody else. And there are a whole host of options there. And if you want to use any of them I'll leave you to explore those in more detail.

Now apart from the ones that you can see there if you click on this More dropdown you have lots of other options as well. So for example, I could export to Word in rich text format, I could export to a SharePoint list, I could export to an ODBC database or as an HTML document.

So let's now look at a more complex example. Now let's take the report that we created earlier on. So report Country Trip Tour List. And if you remember this report lists the available countries and tours and the lowest adult price. So I'm going to select it and I'm going to choose

to export it as a PDF. I'm going to browse to a folder and I'm going to just change the name. so I'm going to remove the report part so it's just called CountryTripTourList.pdf. I'm saving as type PDF. And I click on Publish. And again I get the option to save the export steps, which I'm not going to do. And there we go. There is my PDF produced. You can see that we have our countries and then all of the tours for that country. So very, very simple to export parts of your database out to other applications. And as I said, if you want more detail on some of these other options that you have in this export group then as always I would recommend you jump into the Help file for some further reading.

That's it for this section. I will see you in the next.

Section 20 – Application Parts

Video: Adding Application Parts to a Database

Deb: Hello again and welcome back to our course on Access 2019. In this module we're going to take a quick look at Application Parts.

And the first thing I'm going to refer you to is the Help section. So all I've done here is do a search on Save and reuse database design elements. And one of the items in here is Application Parts. So rather than use a template as a starting point you may be in a situation where you are partway through creating a database but you need to add some functionality. And the functionality you need to add is functionality that many other people have added to databases before you. So with an application part you essentially get a chunk of functionality, very often a table and with the table very often some forms. And by adding these to your database you get a really good starting point on the functionality you want to add.

Now the example in Help is the comments application part. And this provides a table that is set up to include comments. So let's just read that. So in the Application Part section in Help it says, For example, the comments application part provides a table that is set up to contain comments, including a date/time field. Some application parts start a wizard to help you create a relationship to define how the application part fits in with your existing tables. So with that in mind let's close Help and let's take a look at application parts in relation to the Esprit de Tour database. So I want to start capturing comments that the admins of the database make about the trips. And it might be that I want to extend that to capturing comments from users.

So I'm going to jump up to Create and in the Templates section you can see we have a dropdown for Application Parts. And it's divided into two sections. We have Blank Forms and Quick Start. And underneath Quick Start you will see that we have an option for Comments. So when I click Comments it gives me the option of creating relationships with other tables that exist in my database. So it's set up a form that helps me create a relationship with the country table. And note in the dropdown that all of the other tables are available. And if there is a relationship between comments and tables, so for example, if I wanted to be able to record comments about each trip I might say that for the table trip I want to be able to make comments about each trip. So I select my field, so let's click Next, and then I need to select the field from the trip table that will identify which trip the comments are about. And in this case that's going to be the ID. And what name would I like for my lookup column? Well I'm going to call it Trip ID. I'm not going to allow multiple values and I'm going to click Create. And I now have a Comments table. So you can see here under Tables the top one is Comments. So let's open this in Design view and note that I have a unique ID for the comments, which is an auto number field. But then the trip ID identifies the trip. And then the comment date and then the comment. So I can start to set up comments for each of the trips in the database. So you can probably see the advantage there of

using application parts. A lot of the work has already been done for me with regards to setting up a comments table.

Now of course I can also produce forms off of this and run reports as well. So that's a really basic example of an application part and it's a pretty typical one that you might use.

Now before we end module let's go back up to Create and click Application Parts again. And as we mentioned before the application parts are divided into two groups, so Blank Forms and Quick Start. So Blank Forms gives the basic structure that you need and Quick Start really gives you a reasonably full template. So if I wanted to do things like add contacts into my database I have an application part that will allow me to do that and it will be a really great starting point for a contacts database.

I can also add issues, tasks and users as well. So those are definitely worth having a play around with.

That's it for this module. I will see you in the next one.

Section 21 – More Access Options

Video: Additional Access 2019 Options

Deb: Hello again and welcome back to our course on Access 2019. Now earlier on I took you through some of the main Access options and we've referred to options many times throughout this course. What I want to do now is go through a few of the important Access options that I haven't covered so far.

So let's jump into File and go straight down to Options. And we're going to click on the Current Database tab.

Now several of these options we've looked at and I would always recommend you reading through to check your understanding but one option I want to draw your attention to is this one just here, Enable design changes for tables in Datasheet view. So remember that when you're in Datasheet view you are able to make design changes. And that might be something that you want to disable by removing the tick from that box.

Another option I want to highlight to you is underneath Navigation. Now we've already seen how to enable the Navigation pane, enable or disable just by removing the check from that box. But let's look at this Navigation Options button.

Now the use of this dialog enables you to change how the contents of the Navigation pane are arranged and also how they work. So for example, in the bottom left hand corner we have Display Options and one option we have there is Show Search Bar. And if you glance your eyes across to the left hand side in the Navigation pane you'll see right at the top we have a search bar, which means that users can click in here and search for different elements of the database. So if for some reason you want to hide that you can untick Show Search Bar. Now I normally leave this shown because I find it can be a really useful option. And I'm just going to click OK.

And another thing in here is how do you open objects? So do you open them with a single click or a double click? And I in general like to have mine set to double click. So for example, if I want to open the table I need to double click on that table.

You can also choose in here, for example, if I click on Object Type you can choose not to show queries and macros if you want. So that really is a great way of customizing what users can see or do. It might mean that you don't want them to be able to see or make changes to any of the queries so you can disable that and it will no longer be displayed in the Navigation pane. And click on OK. And you can see now that those queries have disappeared from my Navigation pane.

Let's jump down into Datasheet and this is where you can customize the way the datasheets look in Access. So if you wanted to you could remove the gridlines, horizontal and vertical. So let's

do that. Click on OK and then if I open a table, so let's say tblTour for example. The gridlines have actually been removed but you can still see that banded shading.

Let's jump back into our Options and go to Object Designers. Now there's a lot of information on this page and again this is really outside the scope of this course so I'll leave you to have a play around and experiment with these yourself.

I will say though that in the top of the Table Design view that let's you see some defaults. So for example, the default field type. So when you add a field into a table it will default to a data type of short text. And of course you could change that if you wanted to. That's particularly useful if you have a lot of the same data type. So if you're building a table and it has a fairly common data type for each of the fields, for example numbers, you could come in here and the default will be set to number which just makes it a little bit more efficient for you.

You can also choose the default text field size. So if you remember if you glance down into the properties when you add a short text field it will default to 255. But again you could change that to whatever you wanted to.

You also have some options for the defaults when using Query Design.

And the final page of the Access Options is the Client Settings page. And these settings only apply to a standard Access database. So they don't apply to anything like web apps.

Now you may have noticed when you're tabbing through the fields you select the entire field. And what you may prefer is to get the cursor to go to the start of the field or the end of the field. And this is where you can customize those options.

Now if we scroll down into the Display section, this is where you can define how many recent databases you see when you go to file open. So I have mine set to 50. And there are various other options in here. For example, do you show the status bar?

And if we scroll down a bit more we have an Advanced section at the bottom. And a lot of the settings here relate to multiuser use which we haven't looked at at all in this course. But bear in mind that when you are using Access in multiuser mode, i.e., lots of people can access the database at the same time, there are a number of important options, like record locking available down here.

If we scroll down a little bit more, right at the bottom we have default theme. So you can see I'm using the default Office theme. And I can choose an alternative by browsing from here.

So those really are the main Access options that I want you to be aware of. That's the end of this module. I will see you in the next one.

Section 22 – Info Tab

Video: Edit Database Properties and Encrypt with Password

Deb: Hello again and welcome back to our course on Access 2019. In this module I'd like to look at a page in Backstage view because there are a couple of options that I haven't discussed in detail.

So let's go to File and the option that I'm interested in is the default one actually, Info. And one of the options that we have in here is this View and Edit Database Properties link. So let's click on that. And there are a number of different tabs in here so let's click onto General and this General tab has lots of summary information. So you can see the name of the file, the type, the location, the size, when it was created, when it was last modified, last access, so on and so forth. You then have a Summary page. So again this is where you can modify things like the author. You can add things like keywords and comments as well. And we have a Statistics tab. And this will give you statistics on the database. We then have some information about the contents and then a facility to define some custom properties. And again setting custom properties is outside the scope of this course. So that's the View and Edit Database Properties.

Now we have two other options in this Info tab. One of them is Compact and Repair Database and we actually looked at this earlier on in the course.

So the one that I'm interested in or what I want to concentrate on is this one here, the Encrypt with Password. Now one important aspect is that you may have a database where you may not want people to see everything in the database. So essentially you want to secure the data. And in much earlier versions of Access the approach to do this was to use a password on the database. And whilst that kind of basically worked it was a little bit limited and it had one big flaw. And the flaw was that people could use other pieces of software to open the Access database and they could read the data. So it wasn't particularly secure.

Now the way that Access was changed to get around this was to give you the facility to encrypt the data. So essentially to make the contents secure and encrypt with a password.

Now before we do this just a quick warning. In order to encrypt you need to open the database for exclusive use only. And again this was something that we discussed earlier. So exclusive use means that you must be the only person who has the database open.

So what I'm going to do is I'm going to close this file down and I'm going to reopen it, but I need to do it in a slightly different way. So I can't just go to File and Open and select it from my Recents. I need to browse to the file. And this is the one I want here, Esprit de Tour 20.accdb. And underneath Open if I click the dropdown you see there it says Open Exclusive. So that is the option that I want. So now essentially this database is open just for me.

Let's jump back into Info and we're going to say Encrypt with Password. So it's asking me to enter a password for this database. Now normally I have a very complex password but for demonstration purposes I'm going to use a very simple one and that is a corruption really on the word Password. So P-A-55-W-D. I'm going to verify. P-A-55-W-D and click on OK. And you'll see that you'll get this message here which says Encrypting with a block cypher is incompatible with row level locking. Row level locking will be ignored. Now this message is nothing to worry about. It's only a message really that relates to certain aspects of locking in a multiuser environment. And we're not in a multiuser environment so we can ignore this message.

So our database is now encrypted and locked. So let's close it down and let's try and open it again from our Recent files list. And you'll see it asks me for a password. So P-A-55-W-D. And there we go. My database is now open.

Now if you need to essentially do the reverse of that, so decrypt it and remove the password, again you have to open for exclusive use. So let's close this down, let's go back to File, Open, and we need to browse for our file. There it is, Esprit de Tour 20. I'm going to click Open for exclusive use. I'm going to type in my password and then I can go to File, Info and you can see now that it says Decrypt Database and that removes the password from this database. So let's decrypt, enter our password in again, P-A-55-W-D and this database is now no longer password protected.

So that's it. Fairly straightforward. That's the end of this module. I will see you in the next one.

Section 23 – Course Close

Video: Course Close

Deb: Hello again and welcome to the final section of Access 2019. I certainly hope you've enjoyed working through this course with me. I've definitely enjoyed preparing it and presenting it to you. And I hope you feel you've gained a lot of knowledge in Access.

If you've done most or all of the exercises you should feel really pleased with yourself as there is a lot to learn and it is a very big, complex product. And as I mentioned before, there are still a whole heap of stuff for you to continue learning.

So for example, you may want to delve a little further into VBA and learn how to code to support your database to make them really powerful and flexible. You might also want to start exploring multiuser databases.

So plenty more for you to learn, but in the meantime enjoy what you've learned so far.

So that's it from me. My name's Deb and it's goodbye for now and I hope to see you online again some time soon. Goodbye.