PAGE
communication

Microsoft Access 2016
Beyond the Basics
Course Notes

©2017 Chris Page

Chris Page

11 River Gardens, Shawbury, Shrewsbury, SY4 4LA

Tel 01939 251094

www.pagecommunication.co.uk

CONTENTS

COURSE OBJECTIVES

By the end of this course you will be able to

- Correctly create a main form with a subform, referring to notes if necessary.

- Create a form that correctly uses combo boxes, tabs and option groups as specified, referring to notes if necessary.

- Accurately create queries with different joins, referring to notes if necessary.

- Correctly create parameter queries, without reference to notes.

- Accurately validate parameters provided in a parameter query, referring to notes if necessary.

- Correctly create a query to find duplicate entries, referring to notes if necessary.

- Correctly create a query to find unmatched entries, referring to notes if necessary.

- Accurately update data within a table using an update query, referring to notes if necessary.

- Correctly archive data from one table to another using various action queries, referring to notes if necessary.

- Accurately create a multi-table report, referring to notes if necessary.

- Accurately, create a calculated field within a report, referring to notes if necessary.

- Correctly create a report based on a parameter query, referring to notes if necessary.
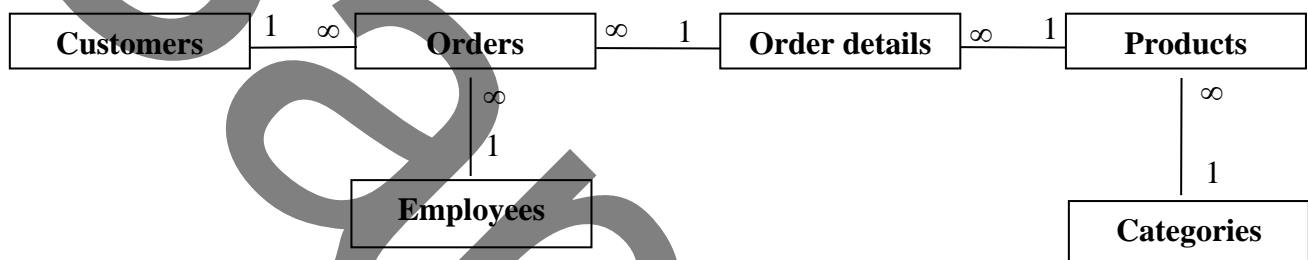
MODULE 1 – WORKING WITH FORMS

OBJECTIVES

At the end of this section you will be able to:

- Correctly create a main form with a subform without using the form wizard, referring to notes if necessary.

- Create a form that correctly uses combo boxes, tabs and option groups as specified, referring to notes if necessary.

THE COURSE DATABASE

This course uses an Orders Database for a fictitious company called Northwind Traders, which records customers, products and customer orders for products. The schema for the Orders Database is as follows:

```
┌───────────┐  1   ∞ ┌─────────┐  ∞   1 ┌───────────────┐ ∞   1 ┌───────────┐
│ Customers │────────│ Orders  │────────│ Order details │──────│ Products  │
└───────────┘        └─────────┘        └───────────────┘       └───────────┘
                          │ ∞                                         │ ∞
                          │                                           │
                          │ 1                                         │ 1
                     ┌───────────┐                              ┌───────────┐
                     │ Employees │                              │ Categories│
                     └───────────┘                              └───────────┘
```

Customer to Orders	Each Customer will place many Orders. If these are placed in a separate table, then you don't need to enter the entire Customer's information each time that you enter an Order.
Employee to Orders	Each Employee will take many Orders. If these are placed in a separate table, then you don't need to enter the entire Employee's information each time that you enter an Order.
Orders to Order Details	Each Order may have several items placed on it. If you hold the Order Details in a separate table then you don't need to enter the Order information for every Order Item.
Order Details to Products	Each Order Detail on an Order should only be available from products in the Products table, so Order Details can be linked to Products to ensure this. The Products table will hold all Stock Items, their prices and amount available to sell.
Products to Categories	Each Product Item belongs to a Category.

Forms can be created in three ways:

1. Access can create forms automatically for you.

2. You can use the Form Wizard to help you create forms.

3. You can create forms from scratch.

Once created, the forms can be modified at a later stage, if desired.

When viewing data through a form, it can be manipulated in exactly the same way as in datasheet view, for example, the record selectors are at the bottom of the screen, data can be edited by clicking in the required field, and fields can be searched using the Find facility. The types of forms available are:

Single Form

The fields are arranged underneath each other in a single column. Only one record is seen at a time.

Split Form

A split form is a feature in Access 2010 that gives you two views of the data at the same time — a Form view and a Datasheet view. The fields are arranged in more than one column in the form-based top half with the bottom half showing the underlying data in datasheet view. The user can edit data in either part.

Multiple Items Form

The fields are arranged horizontally across the form. Several records are seen at a time. It is like having a formatted datasheet.

©2017 Chris Page

3

Main/Subform Form

This type of form is specifically designed to display data from tables that are related in a one-to-many relationship, for example, categories and the products within them. As you move through the categories, the appropriate products are automatically displayed.
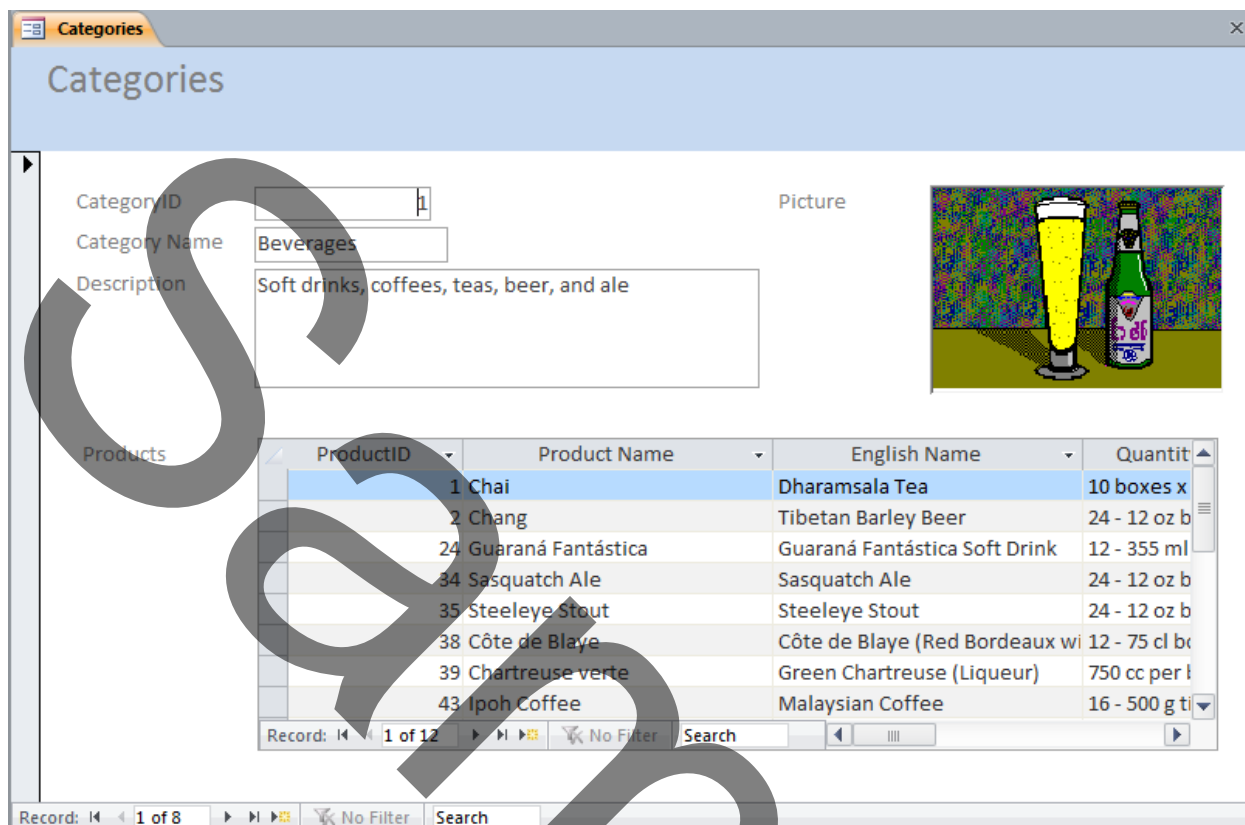
This is best created using the Form Wizard although if a table has a subdatasheet then using the Form button can achieve this too. The downside of this latter option is that you have a very limited ability to modify or format the subform. Moreover, if you hide columns in a subdatasheet-based subform, you affect the view of the corresponding table.

Creating Forms

Forms can be created using the various options within the **Create** tab of the ribbon under the *Forms* group.

To create a single form

1. From the *Navigation pane*, select the table you wish to create the form for.

2. Select the **Create** tab of the ribbon, and in the *Forms* group click on the **Form** button. Access automatically creates a new form and displays it on the screen.

To create a split form

1. From the *Navigation pane*, select the table you wish to create the form for.

2. Select the **Create** tab of the ribbon, and in the *Forms* group click on the **More Forms** button.

3. Select the **Split Form** option. Access automatically creates a new form and displays it on the screen.

To create a form using the Form Wizard

1. From the *Navigation pane*, select the table you wish to create the form for.

2. Select the **Create** tab of the ribbon, and in the *Forms* group click on the **Form Wizard** option.

3. Follow the directions in the following Wizard screens to complete the form. The exact questions will depend on the type of form chosen. Select the fields for the form in the same way as selecting fields from the lookup wizard.
   *Note: For a **Main/ Subform Form**, after selecting the fields for the Main form and before clicking on Next, select the table to base the subform on and select the required fields.*

4. Click on **Next**.

5. If you are creating a *Main/Subform* Form, the wizard asks how you want to view the data (orientated by wither one table of data or the other table of data). Generally, select the Main table. If you select this option, you also have to select if you want to see a form with subforms where the data in the subform is shown in place, or a linked form, where you have to click on a button to show the subdata. Click on **Next** when you have made your choices, and then choose the subform layout.

6. If you are creating a single form, select the layout required. The different layouts are:

   Columnar Form

   The fields are arranged underneath each other in a single column. Only one record is seen at a time.

   Tabular Form

   The fields are arranged horizontally across the page, one record to a line, so several records can be seen at the same time.

   Datasheet

   This looks just like a regular datasheet. This layout is useful when you are displaying just a few fields from different tables.

   Justified Form

   The fields are arranged horizontally across the page, to fill the width of the form. Only one record is seen at a time.

7. Click on **Next** after you have chosen the layout.

8. Select the style/colouring you wish for the form, then click on **Next**.

9. The final stage asks for the form names. The wizard will suggest names. Note that a subform will generally have Subform after the name. This is useful as you can see in the navigation pane that the form should be opened by a main form and not on its own.

10. Click on **Finish** to end the Wizard. The form is created, saved and displayed on the screen.

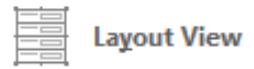## USING FORMS

To open a form

From the *Navigation pane*, double-click on the required form.

Once a form is open, you can use the following buttons to switch between various viewing modes:

Form View – Use this to view the underlying data.

Layout View – Use this to make design changes while you view the underlying data.

Design View – Use this to modify the form in detail.


DESIGNING AND MODIFYING FORMS

Forms may be created without using the Wizard from a blank design. This means you design your own layout, place the fields where you want to, add text, lines, and boxes to enhance the layout and choose your own fonts and colours.

The following sections show how to create forms from scratch. The same techniques can be used to modify a form created with the Wizard.

To create a blank form

1. Select the **Create** tab of the ribbon, and in the *Forms* group click on the **Blank Form** button.

2. A blank form is created and displayed in *layout view* with a *Field List* pane on the right of the blank form.

Close the form design
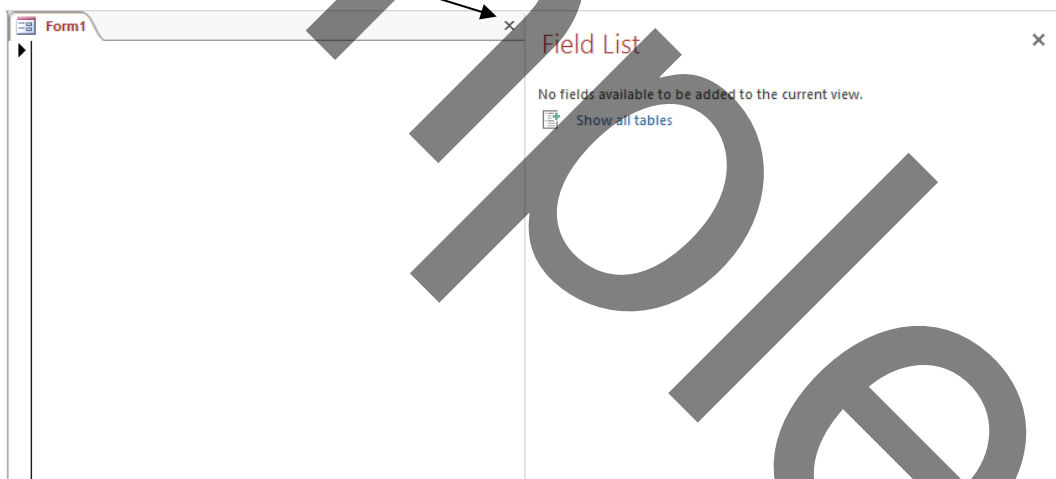
3. The field list can display all the tables within the database. Click on **Show all tables** if required. Click on the plus sign (+) that is beside the table that you want to base the form on. The fields available will be displayed. Drag and drop the required fields on to the form – ideally drag them in the order that you want them to appear. The layout will initially be *single column* with all the controls anchored together. Resizing one control will affect them all, but this can be changed if you wish.

Creating a Main/Subform

1.   Open the Traders 2016 database.

2.   Using the Form Wizard (**Create** tab in the Ribbon, *Forms* group, **Form Wizard**) create a form based on the *Orders* table to include all the fields except *Comments*. Do not click on Next yet.

3.   Now select the *Order Details* table from the Tables/Queries drop-down selector and add in the following fields: **Product ID, Unit Price, Quantity.** Click on *Next*.

4.   Select the *Form with subform* option. Continue with the wizard selecting the *tabular* layout for your subform at the next step. Accept the titles of **Orders** and **Order Details Subform.**

5.   Now looking at the completed Orders form switch to design view.

6.   Delete the *Order Details* label that is automatically included with the subform.

7.   Move the *Order Details Subform* so it is adjacent to the left edge. Widen this subform so that it is occupying the full width of the *Orders* form.

8.   Delete the *EmployeeID* field and label.

9.   Ensure the toolbox wizard is selected and create a combo box beside the text boxes that uses the following details:

   - Connect to the Employees table.

   - Display the Employee Id, First name and Last name fields

   - Do NOT hide the key column.

   - Save the results in the Employee ID field.

   - Use *Employee ID* for the label.

10.   Select the 4 remaining text boxes plus the new combo box in the main form and using the **Arrange** tab in the Ribbon, *Tablet* group, **Stacked** button, add these controls to a Stacked control layout.

11.   Using the **Arrange** tab in the Ribbon, *Position* group, **Control Padding** button, select **Narrow** to move the controls closer together.

12.   Now edit the subform. In the Form header, move the column titles to the top of the form header, then re-size the header to half its height.

13.   Also in the subform, move the right-hand edge of the subform to the right and add a Text Box to the right of the last field. This will be Unbound. It will have an attached label to the left of it. Delete the attached label.

14.   Open the properties for the Unbound Text Box and change to the following:

Control Source   =[Quantity]*[UnitPrice]

Format   Currency

15.   Create a label in the subform header above this calculated text box. Edit the label to show the text "Total".

16.   Your form should look something like this on the right.

17.   Close the form and save the changes.

Option Groups and Tabs

1. Open the Traders 2016 database.

2. Create a new blank form in *Design View* based on the customer table. Add the tab control first then add the required fields.

3. Use an Option Group to show the Customer type, let the default type be Corporate and store the following values in the Customer Type field

    Corporate   -   1
    Retail   -   2
    Small Business   -   3

4. The details on the second tab are shown below.

5. Close and save the form calling it **Customers**.

6. Open the form again in *Design View*.

7. Display the form's Property Sheet and under the *Other* tab change the *Pop Up* property to Yes.

8. Close and save the changes.

9. Open the *Customers* form in form view and notice how it is now a separate window rather then a tabbed window. Note also however, that you cannot toggle back to design view (to modify the design you need to open it in design View from the navigation Pane.) Close the form again.