Access 2010 Intermediate

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2010

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Tutor Setup Information

- Copy the sample files folder, called **Access 2010 Intermediate Course** to the **Documents** folder on the PC.
- At the end of the course, remove all files modified or created during the course, prior to re-running the course.
- At the end of the course, reset all program and operating system defaults that may have been modified during the course, prior to re-running the course.

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Sample files for this Course

- During this course you will need to open samples files.

  These are stored under the **Documents** folder in a sub-folder called:

  Access 2010 Intermediate Course.

  If you create any new files, unless otherwise instructed, you should also save the files in this folder.

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Queries

What are queries?

- Using a query is similar to filtering and sorting tables but much more powerful. Unlike filters, multiple criteria can be used in one or more fields to be highly specific about the information you wish to extract from a table.

- Queries are used to extract and analyse data within one or more tables.

- Queries can be saved, edited and reused. They provide output for use by other database objects, such a forms and reports.

- Queries are also capable of working with data across multiple tables.

- Different queries are designed to perform different functions, for example an update query searches for and updates field information in one or more tables, whilst a delete query searches for and deletes records from one or more tables.

- **An update query** is similar to the Find & Replace function found in most Microsoft applications, only more advanced. For example, if telephone area codes change to accommodate an increasing population, an update query might be created to find all existing area codes affected by the change and at the same time, replace the old area code with a new area code.

  NOTE: Update queries cannot create new records, only update existing records.

- **A select query is** used to search for and display data according to the specified criteria. This data can then be viewed as a table, in a form created specifically on the query or as a report.

- **A delete query** is used when you need to remove entire records (rows) from a table. Delete queries, by default, remove all of the data in each field, along with the unique key field, (normally the primary key field) When the query is run, it removes the entire record (row) from the table.

  Before creating a delete query, you would create a select query first to ensure it returns the records that you want to delete. This way you are able to test the query first, rather than inadvertently deleting the wrong records. Only when the select query is tested and returns the correct results, would you convert the query to a delete query.

- **An append query**, is used when you want to extract information (records) from one or more tables and append (add) it to one or more tables. Normally the tables would reside in the same database however other database can also be used.

- **A make table query** retrieves data from one or more tables, and then loads the result set into a new table. That new table can reside in the database that you have open, or you can create it in another database.

- As with all objects, Access provides a Wizard tool to help create different types of queries or blank queries that can be configured from scratch.

  NOTE: Tables do not have to be open or selected to create a query.

Creating a query

- Start the Access program.
- Open a file called **Queries**. The database opens with two tables (**Orders** and **Sales Employees**) displayed in the Navigation Pane.
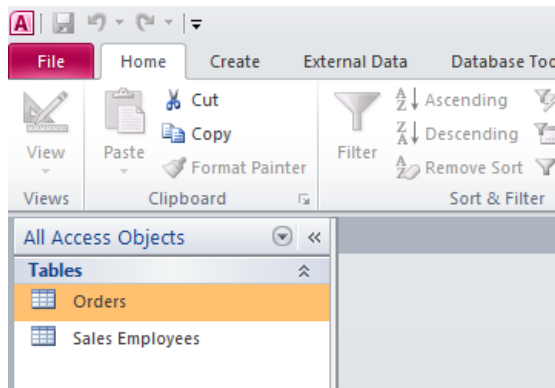
- Click on the **Create** tab and from within the **Macros & Code** group click on the **Query Wizard** button.
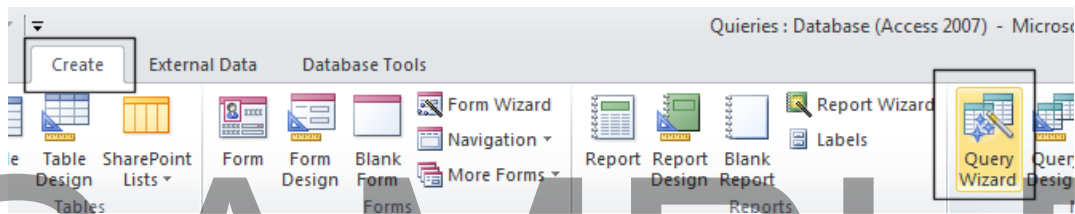
- The **New Query** dialog box is displayed.
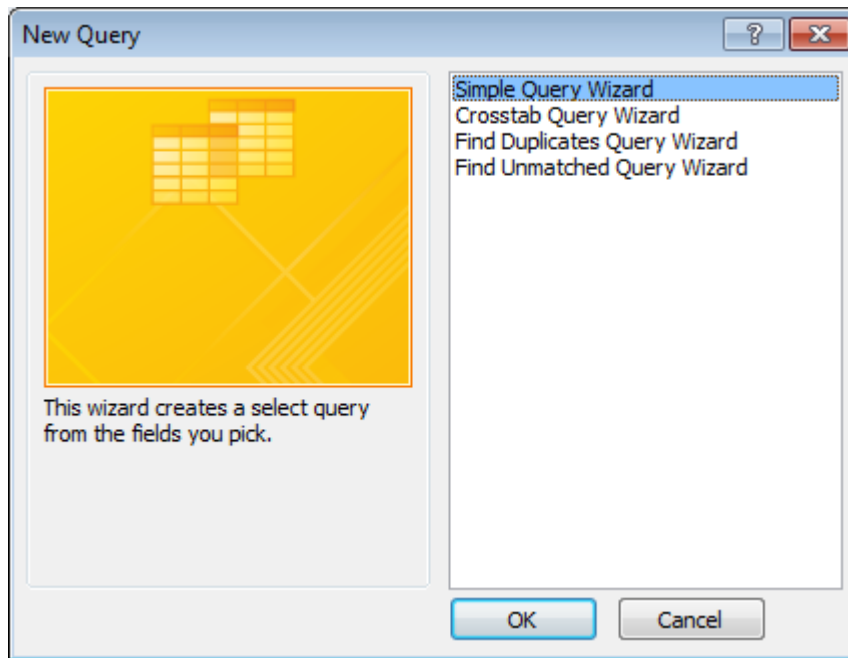
- With the **Simple Query Wizard** selected, click on the **OK** button. The **Simple Query Wizard** dialog opens.

- Use the **down arrow** in the upper part of the dialog box to select the table or query you intend working with, in this case select **Table: Orders**.
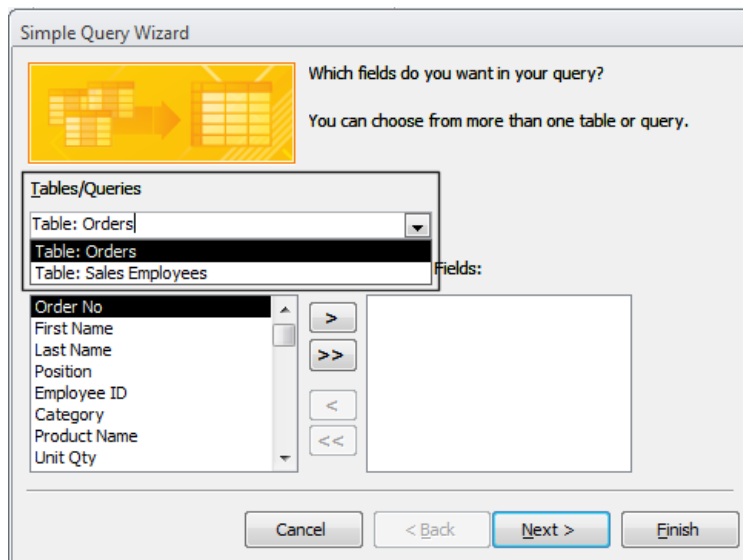
- In the lower part of the dialog box are two field selection boxes, **Available Fields** and **Selected Fields**.
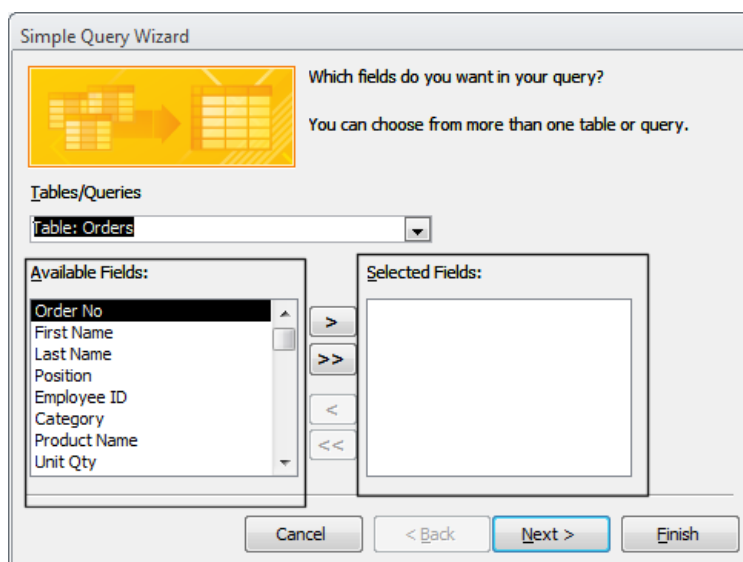
- **Available Fields** can be added to the **Selected Fields** box by first highlighting the field and then clicking on the right pointing arrow button.

Or you could double click on a field within the **Available Fields** list.
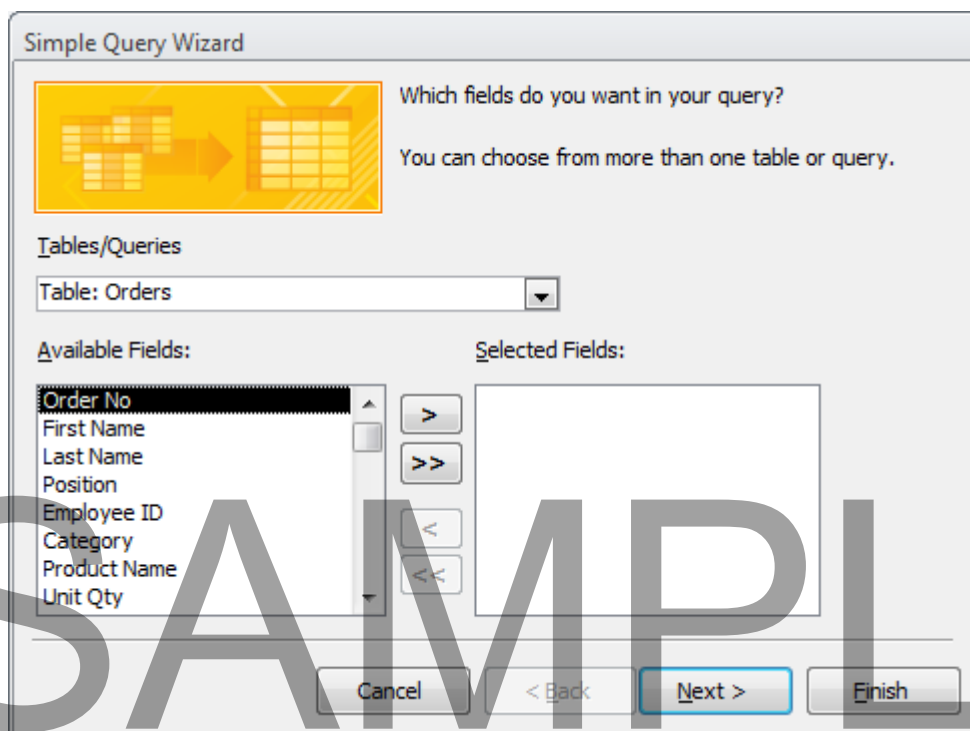
Alternatively, clicking on the button below adds all fields to the **Selected Fields** box.

NOTE: When fields are displayed in the **Selected Fields box**, this button will remove all fields.

<<

This button removes a single highlighted field.

<

- Add the following fields:

  First Name
  Last Name
  Category
  Product Name
  Quantity
  Order Date.

- Click on the **Next** button.

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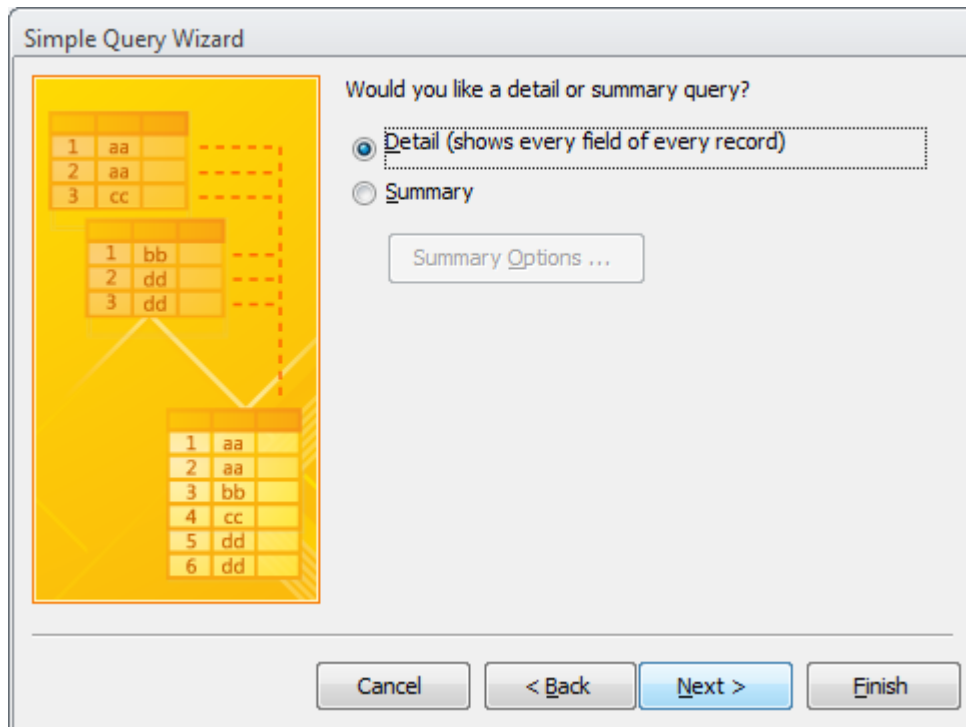
- Click on the **Next** button.
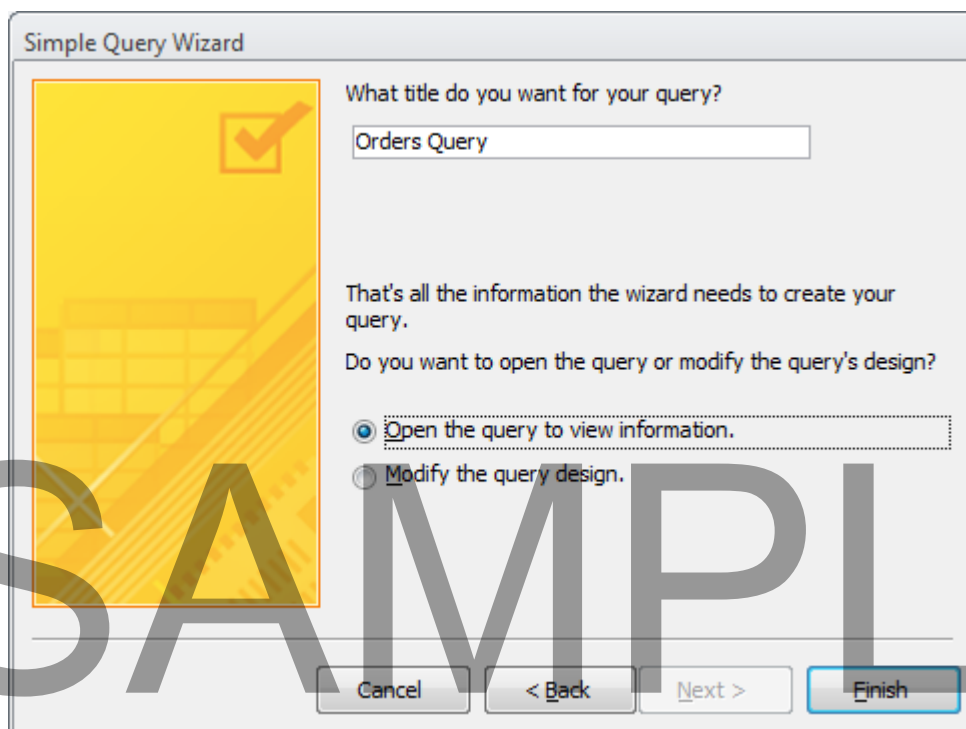
- At this point you can accept the default name provided by Access or type your own. Highlight the **Query Name** and type in **Customer Orders**, as illustrated.

- Click on the **Finish** button. The **Customer Orders** query displays the result in table form.

- The new query can be seen as a new object in the Navigation Pane.

- Currently all this query has done is to display information from the **Orders** table using only the fields chosen as you worked through the wizard.

  NOTE: By default, Access has already saved the query using the name provided during the wizard process.

Adding (and removing) criteria to a query

- To utilise the power of a query and locate specific records, criteria must be entered to give the query something to work with.

  For example, if there is a need to locate orders placed between certain dates, we would use the **AND** operator with the following type of criteria entered into the date field of the query.

  >=01/01/2006 AND <=01/06/2006

  Using the **OR** operator you could enter the following criteria into the date field.

  22/01/2006 OR 9/04/2006

  This criteria would locate records with either of those two dates.

  The **NOT** operator could be used to exclude records with certain dates from the query results. For example:

  NOT 22/01/2006

  This criteria would exclude all records dated **22/01/2006** from the query results.

  TIP: Operators used to create criteria in queries are the same operators used to create validation rules.

Validation Rule Comparison Operators	Description
>	Greater than
<	Less than
=	Equal to
>=	Greater than or Equal to
<=	Less than or Equal to
<>	Not Equal to

- To add criteria to a query, the query must first be in Design View. Click on the **Home** tab. Click on the down arrow under the **View** button to switch to **Design View**.
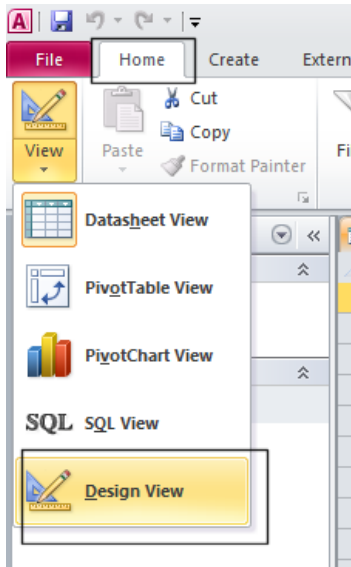
- Your screen will now look like this.
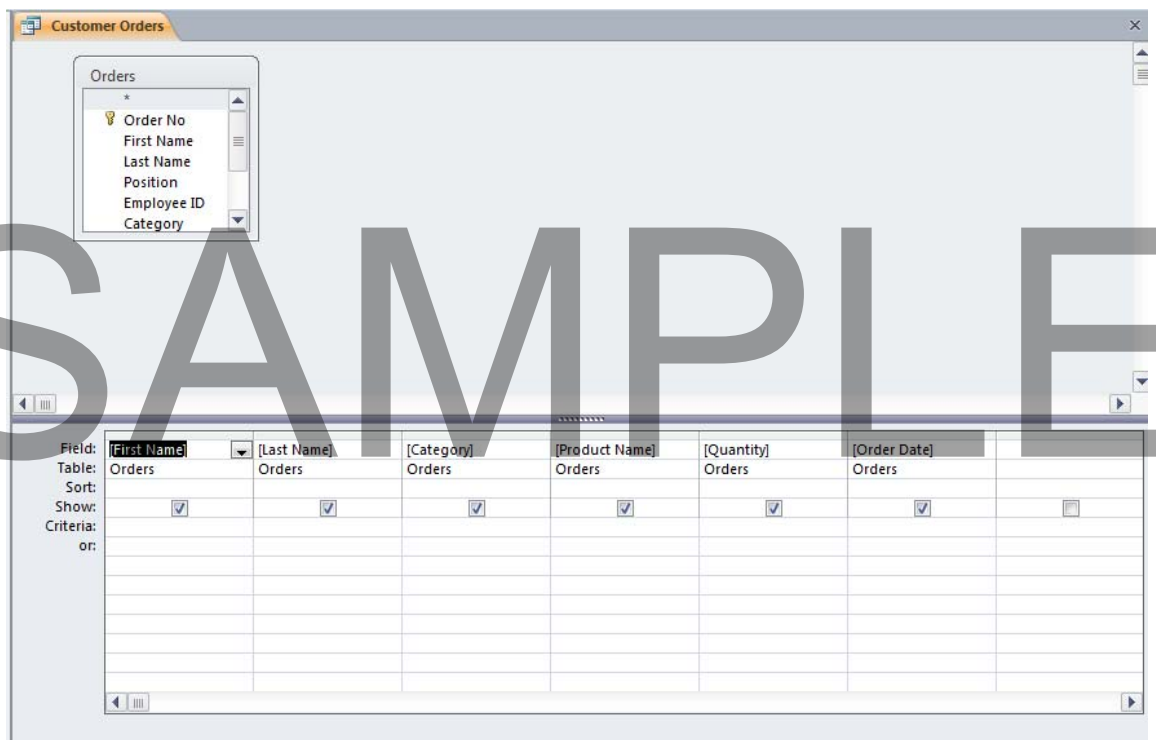
- Similar to other objects when in Design View, queries have their own specific ribbon, functions and tools.

NOTE: Although this is currently a **Select** query, this query can be modified at any stage to become a different type of query and therefore perform a different function.
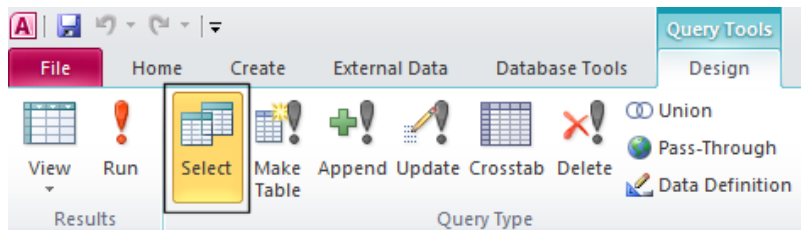
- When working with existing queries, the table field list, located in the Query Design window, is similar to that used when creating relationships between tables. The underlying table can be identified by the name at the top of the list, in this case **Orders**.

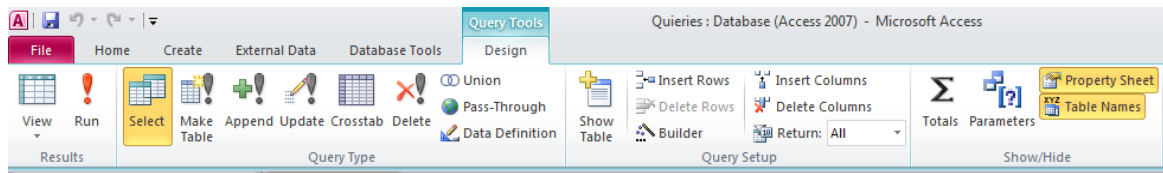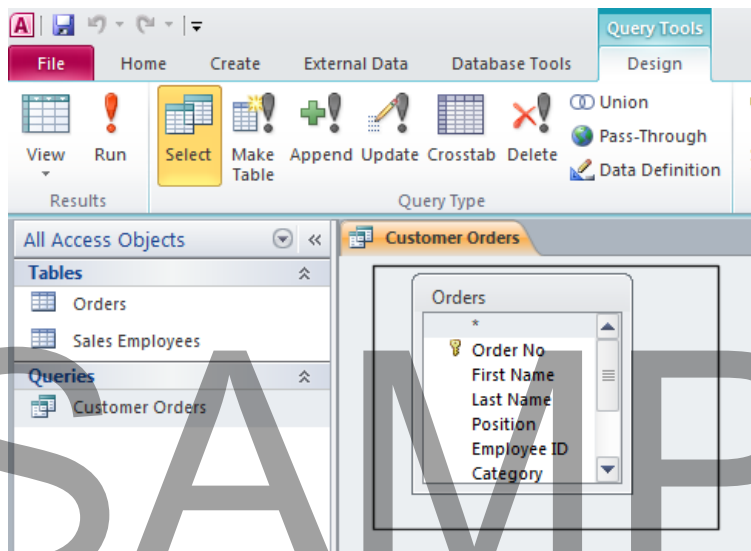**NOTE:** One difference with this table field list is the ***** symbol above the Primary Key. When used, the ***** represents **All** fields in the table and is used to save time.

- The Query Design Grid is where selected fields from one or more tables are added, criteria entered, the sort order set and fields set to display or not when the query is run.
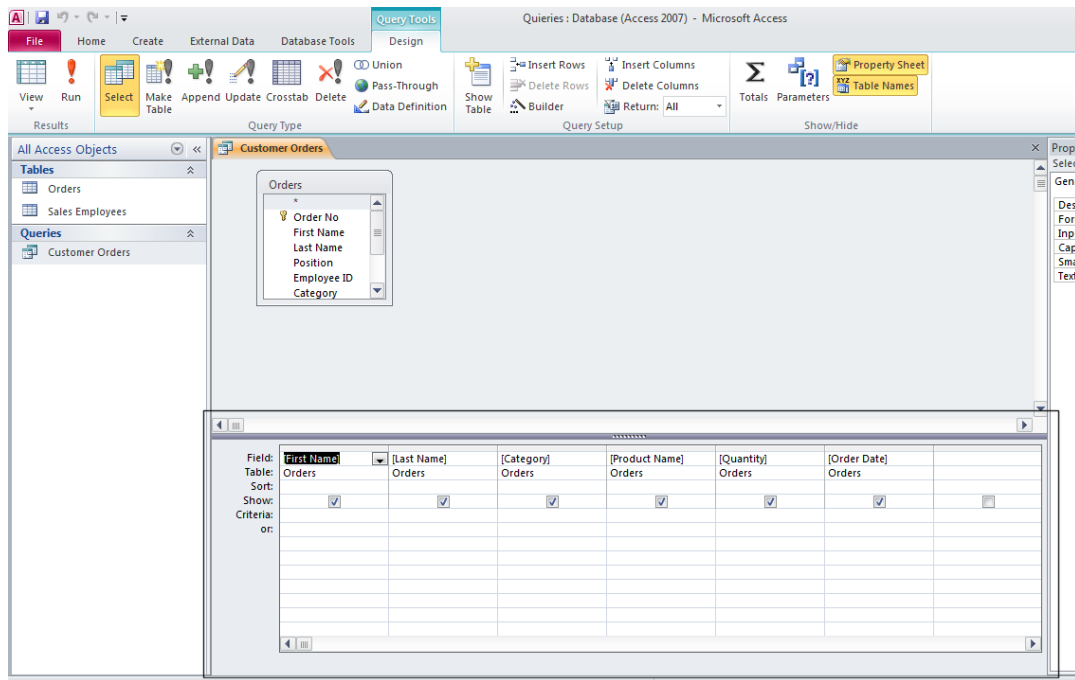
NOTE: Fields can be included in the query design grid for criteria (record search) purposes only and they do not have to be displayed when the query is run.

- Place the mouse pointer in the **Criteria** row under the **Order Date** field in the query design grid and type the following.

>=1/06/2006 AND <=31/05/2007
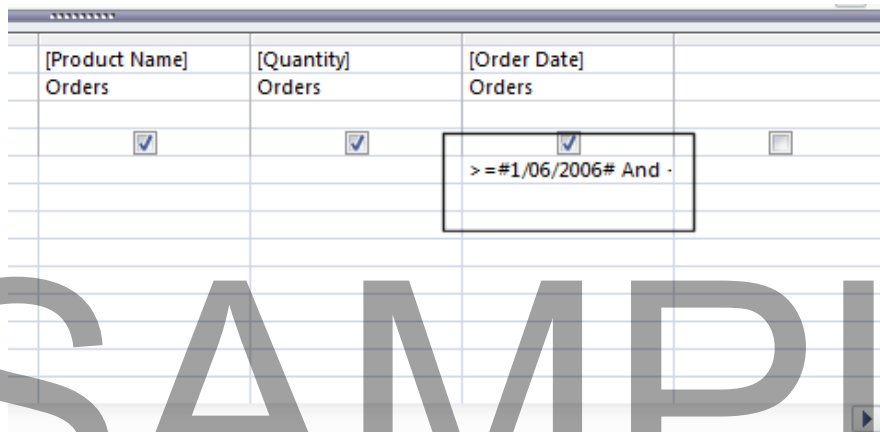
- Press the **Enter** key or use the keyboard cursor key to move to another cell in the grid.

- Notice how the criteria entered changes. Access places hash symbols either side of the dates to signify this value as a date.

NOTE: You may have to widen the column to see this clearly.

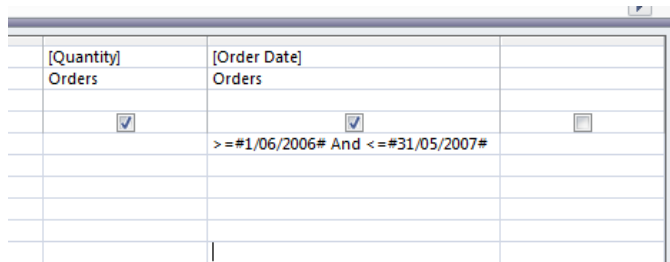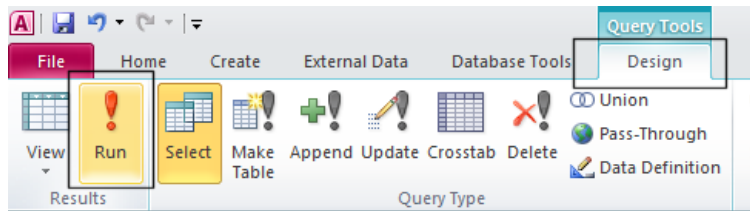**NOTE**: Don't do this now, but if you wanted to remove this criteria, you would simply select it in **Design View** and then press the **Del** key to delete it.

Running a query

- When all the necessary fields, criteria, sort parameters, etc., have been entered into a query and it is ready to be tested or used, you will need to 'run' the query.

- As an example, when you run a select query, you are giving the query a command to look at its parameters, go and search the table or tables for records matching the criteria and produce a list of those records.

- Click on the **Design** tab and from within the **Results** group click on the **Run** button.

- The results of the query are displayed in table form, as illustrated.

- Look at the data within the **Order Date** column and you should see that all the dates displayed are within the range specified by the query criteria.

- In the **Navigation Pane**, click once on the **Customer Orders** query to select it.
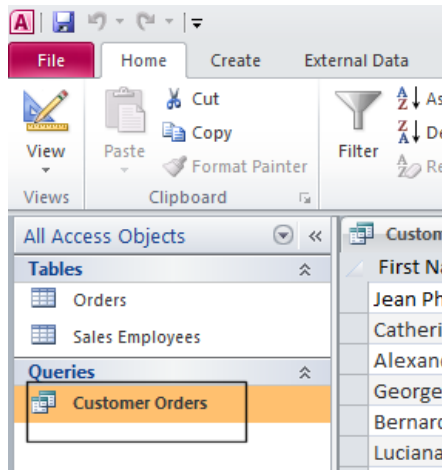
- Click on the **Design View** button to return to **Design View**.
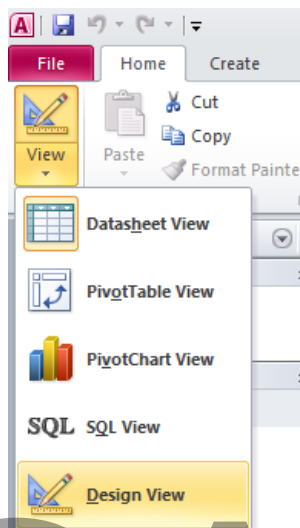
- Next we want to narrow down the search to purchases made for products which fall under the **Dried Fruit & Nuts** and **Grains** categories, between the date criteria previously set.

- Place the mouse pointer into the **Criteria** row of the query design grid in the **Category** field. Type in the following.

  Dried Fruit & Nuts.

- Use the keyboard **down arrow** pointer key or mouse to move down to the row below (the 'or' row) in the same field (**Category**).

- Type in the following and press the **Enter** key.

Grains

NOTE: This time Access encloses the text with "Speech" marks to set the data type to search for as text.

- When run, the query will now search for any records between the date range specified which contain either **Dried Fruit & Nuts** or **Grains**.

- Click on the **Design** tab and from within the **Results** group click on the **Run** button.
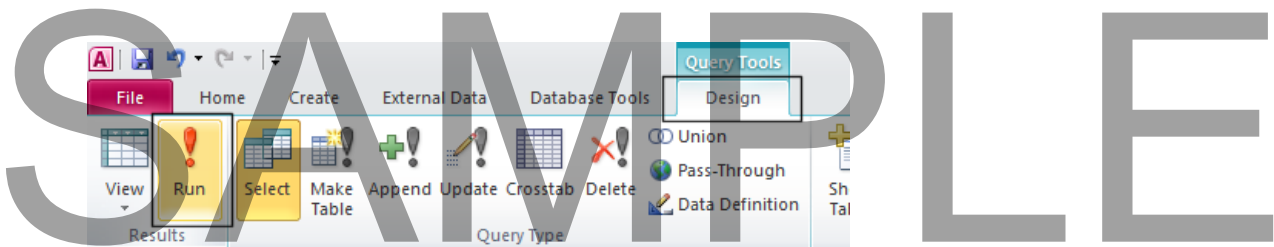
- When the results are displayed however they are not what we might have expected. There are no records listing **Dried Fruit & Nuts**.

Customer Orders					
First Name ˅	Last Name ˅	Category ˅	Product Name ˅	Quantity ˅	Order Date ˅
Alexander	Eggerer	Grains	Long Grain Rice	60	9/04/2006
George	Li	Grains	Long Grain Rice	100	8/06/2006
George	Li	Grains	Long Grain Rice	100	5/08/2006
George	Li	Grains	Long Grain Rice	100	2/10/2006
Bernard	Tham	Grains	Long Grain Rice	80	21/11/2006
Thomas	Axen	Grains	Long Grain Rice	40	11/02/2007
Martin	O'Donnell	Grains	Long Grain Rice	40	15/02/2007
Amritansh	Raghav	Grains	Long Grain Rice	100	30/05/2007
*					

- It is possible that none of the sales of **Dried Fruit & Nuts** took place between the dates specified but this is unlikely. Either way, it is worth checking the query design to make sure the criteria is correct.

   TIP: The easiest way to check the results is to take a look at the table or tables the query is working with. If records matching the criteria are available in the table but not the query, there must be an issue with the query design.

Editing criteria in a query

- Switch back to Design View (using the **View** button).

- As we know the data range works, having run the query prior to adding the **Category** criteria, the problem must be elsewhere. Look at the criteria in the **Category** field.

Field:	[First Name]	[Last Name]	[Category]	[Proc
Table:	Orders	Orders	Orders	Ord
Sort:				
Show:	✓	✓	✓	
Criteria:			"Dried Fruit" & "Nuts"	
or:			"Grains"	

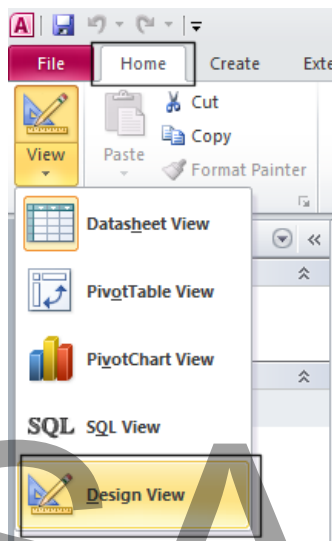- When you entered the criteria and moved to the next row, Access added "speech" marks. The criteria went from **Dried Fruit & Nuts** to **"Dried Fruit" & "Nuts"**.

- Despite all good intentions, Access does not always interpret entries in the way there were intended. Access has seen the **&** between **Dried Fruit** and **Nuts** and interpreted this to be two statements;
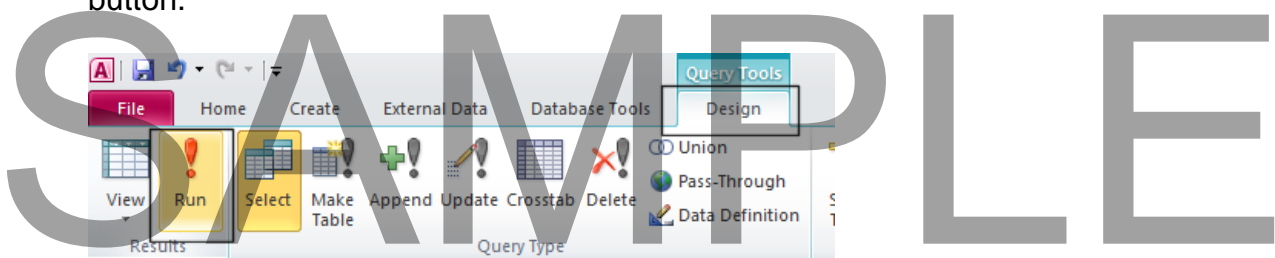
   1) **Dried Fruit**
   2) **Nuts**.

- As no such entries exist in the table, nothing was displayed.

- Place the pointer into the **Criteria** row of the **Category** field and remove the two **"speech" marks** either side of the **&** symbol.

   The result should be **"Dried Fruit & Nuts"**.

Field:	[First Name]	[Last Name]	[Category]	[Proc
Table:	Orders	Orders	Orders	Orde
Sort:				
Show:	✓	✓	✓	
Criteria:			"Dried Fruit & Nuts"	
or:			"Grains"	

- Press **Enter** to commit the changes.
- Click on the **Design** tab and from within the **Results** group click on the **Run** button.

- The results are displayed and this time includes records which contain the category **Dried Fruit & Nuts** according to the criteria set.
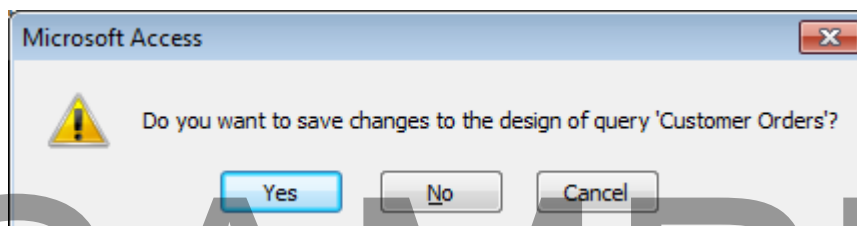
Saving a query

- When first created using the Access wizard, a query is saved automatically. If the query is then modified at a later stage or you create a blank query, you will need to save using the **Save** button.
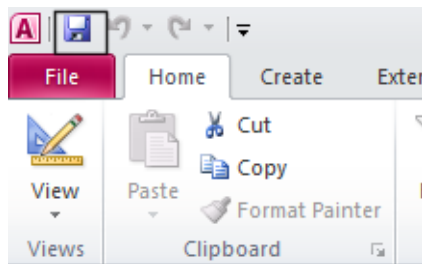
- If you make changes to a query and then run the query, then when you exit the query without saving, you will be prompted to save the query.

- Click on the **Yes** button to save any changes, otherwise they will be lost and you will have to start afresh.
- Right click on the **Customers Orders** query tab.
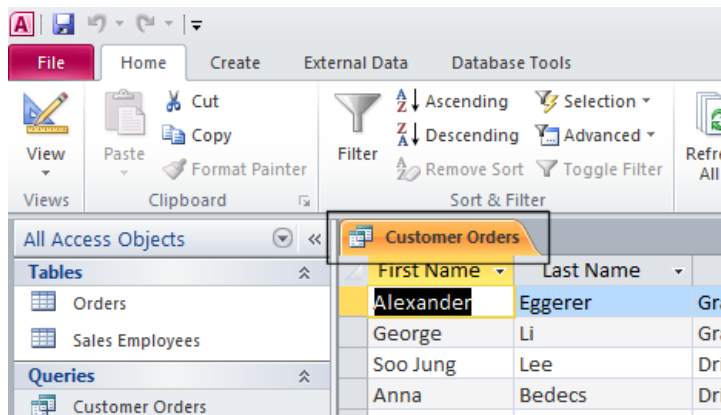
- This will display a popup menu. Select the **Close** command. If prompted, click on the **Yes** button to save the query.

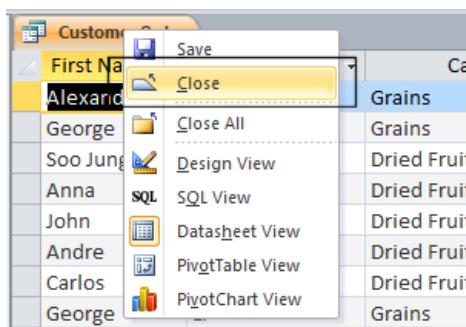## Creating a two table query and sorting the results

- More often than not, the information in a database will be split across multiple tables. For a query to work with multiple tables, a relationship between the tables must be established.

- Continuing with the **Queries** database and the **Customer Orders** query, the next objective is to search for records matching a given criteria, using both the **Orders** and **Sales Employees** table.

- Click on the **Create** tab and from within the **Macros & Code** group, click on the **Query Design** button.
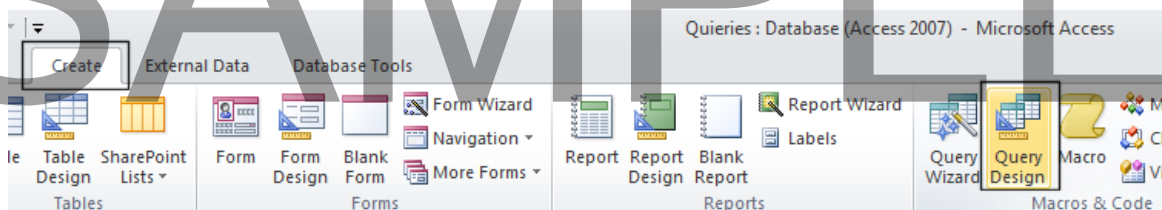
- The Query Design window is displayed.
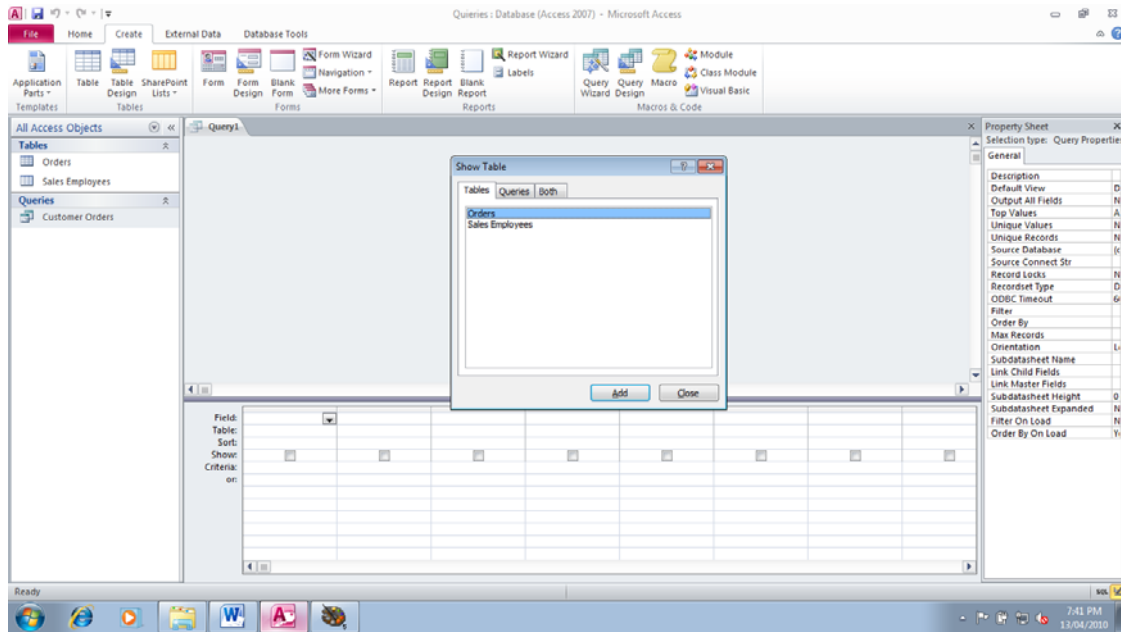
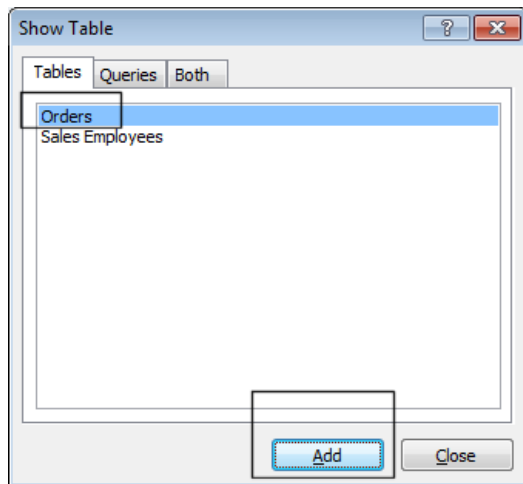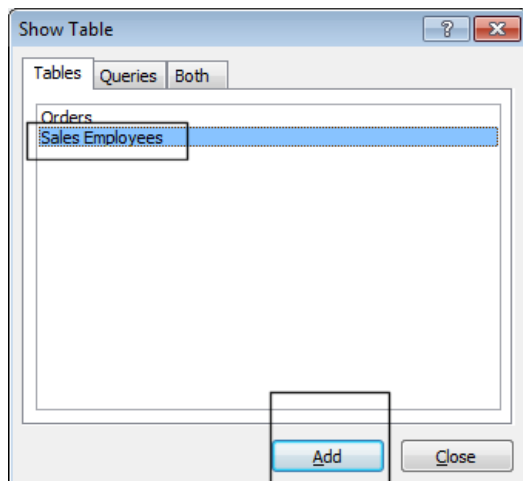- The **Show Table** dialog box is also displayed, similar to the one used to add tables when creating table relationships.
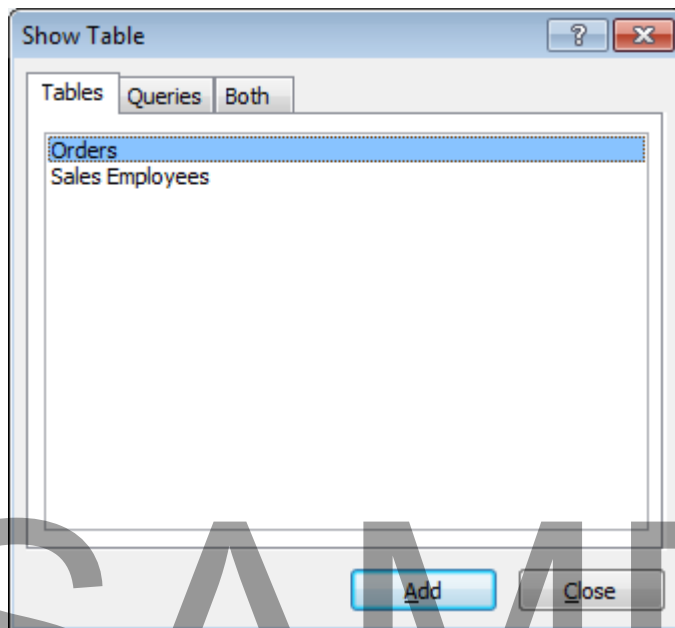
- Click on the **Add** button to add the **Orders** table.

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- Select the **Sales Employees** table and click on the **Add** button again.


   TIP: Double clicking on both table names quickly adds them to the query design window.

- When both tables have been added to the query design window, click on the **Close** button to close the **Show Table** dialog box.

   NOTE: If you inadvertently add a table twice to the query design window, with the pointer in the name area at the top of the additional table, (normally identified by the Original Table name with a **_1** after the name), click using the right mouse button and from the shortcut menu, select **Remove**. See next image.

- When the **Show Table** dialog box is closed, the design window should be left with two linked tables.
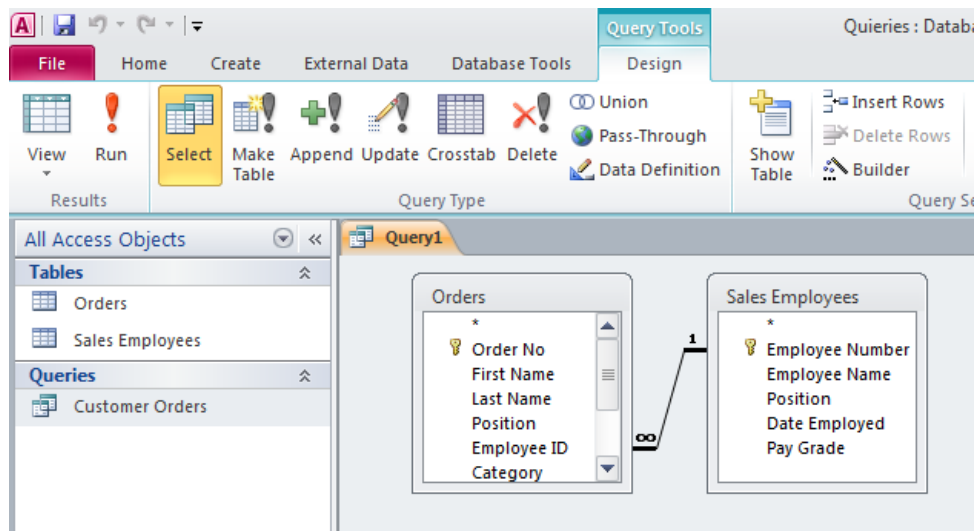
- The purpose of this query is to check the sales performance of staff. The **Sales Employees** table contains the names of each of the sales teams and other staff information. The **Orders** table contains information about products sold, quantities, dates, etc.

- A relationship between the two tables has already been established with the **Employee Number** (Primary key) field in the **Sales Employees** table linked to the **Employees ID** (Foreign key) field in the **Orders** table.

- **Employee names** are not listed in the **Orders** table. To have the query display the names of staff against the orders they have processed, a query will have to include fields from both tables.

- In the **Orders** table, click once to select the **Category** field. Now hold down the **Ctrl** key and click once on each of the following fields.

  NOTE: You may need to scroll down the list to see all these items.

 **Product Name**
  Quantity
  Order Date.

- Release the **Ctrl** key and the four fields should now be highlighted within the **Orders** table.
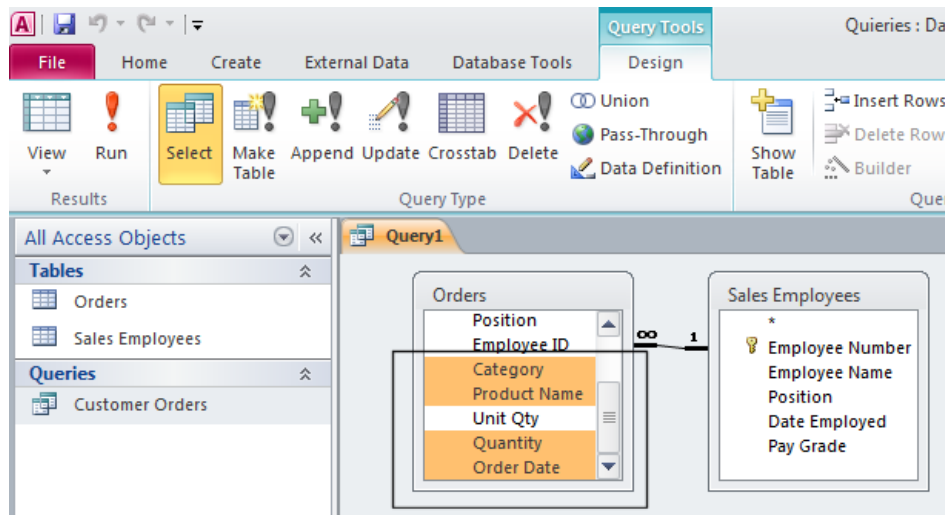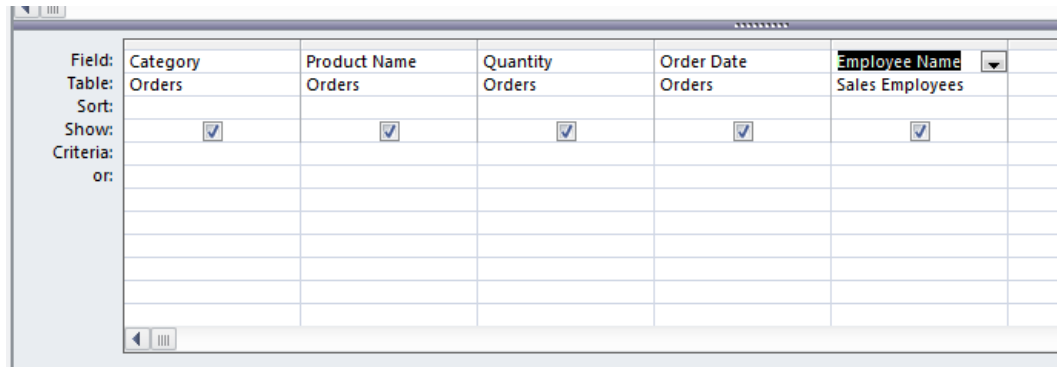
- In one movement, place the pointer over one of the highlighted fields, click and drag to the design grid below. When the pointer is in the grid, release the mouse button. The fields are added to the design grid and are ordered from left to right as they would be in the table.
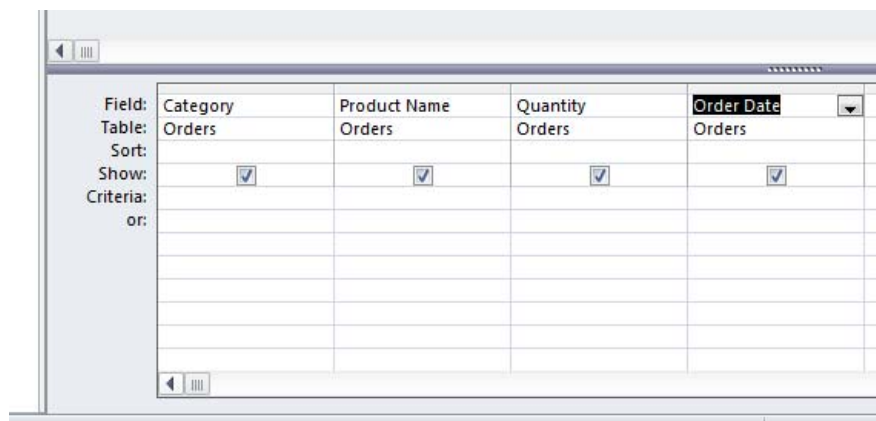
- Next click to select the **Employee Name** field in the **Sales Employee** table.
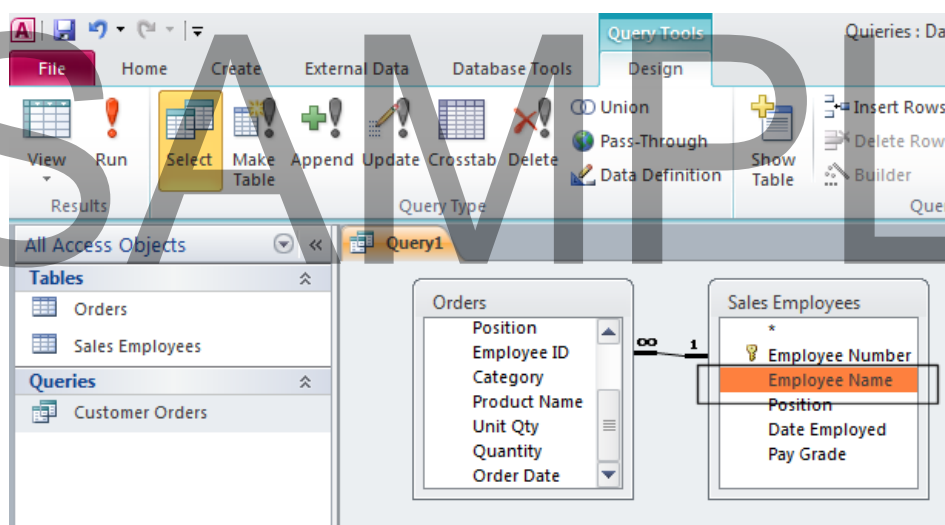
- Click and drag the **Employee Name** field down and to the next blank column to the right of the **Order Date** field.
- With the pointer correctly positioned, release the mouse button to add the field.
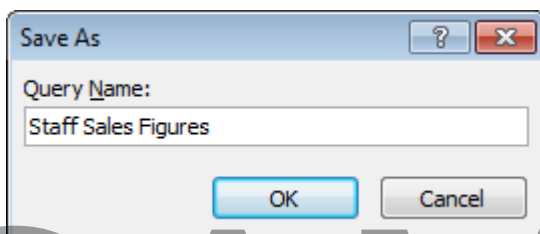
Field:	Category	Product Name	Quantity	Order Date	Employee Name
Table:	Orders	Orders	Orders	Orders	Sales Employees
Sort:					
Show:	✓	✓	✓	✓	✓
Criteria:					
or:					

NOTE: The table row of the query design grid displays the names of the tables used in this query.

- Click on the **Save** button.
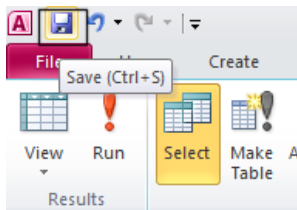
- When prompted to name the query, type in **Staff Sales Figures**.

- Click on the **OK** button to name and save the query.
- Click on the **Design** tab and within the **Results** group click on the **Run** button.
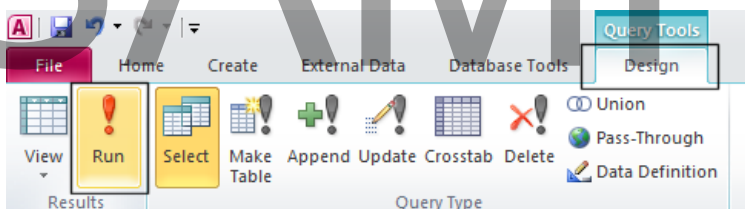
- The query displays a table containing a list of all the sales staff and the orders placed with each member of staff. At this time the table is arranged in order of **Employee ID**, the primary key field, even though this field was not included in the

query design.

Category	Product Name	Quantity	Order Date	Employee Name
Canned Meat	Crab Meat	120	24/03/2006	Mariya Sergienko
Jams, Preserves	Boysenberry Spread	100	5/05/2006	Mariya Sergienko
Candy	Chocolate	100	11/05/2006	Mariya Sergienko
Condiments	Mustard	40	14/06/2006	Mariya Sergienko
Baked Goods & Mixes	Scones	60	20/06/2006	Mariya Sergienko
Baked Goods & Mixes	Chocolate Biscuits Mix	40	10/07/2006	Mariya Sergienko
Oil	Olive Oil	80	13/08/2006	Mariya Sergienko
Condiments	Syrup	100	19/08/2006	Mariya Sergienko
Soups	Clam Chowder	40	8/09/2006	Mariya Sergienko
Pasta	Ravioli	40	12/10/2006	Mariya Sergienko
Sauces	Tomato Sauce	125	18/10/2006	Mariya Sergienko
Beverages	Coffee	40	15/11/2006	Mariya Sergienko
Dried Fruit & Nuts	Dried Apples	40	19/11/2006	Mariya Sergienko
Pasta	Gnocchi	40	23/11/2006	Mariya Sergienko
Sauces	Tomato Sauce	125	29/11/2006	Mariya Sergienko

- Switch to **Design View** by clicking on the **View** button.
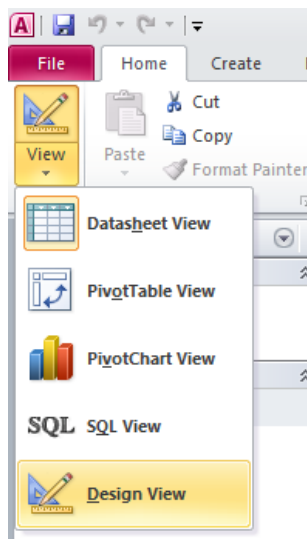
- Move the mouse pointer to just above the **Employee Name** field name (within the lower section of the screen) where there is a thin grey line and until the pointer changes to a **down arrow** shape.

- With the **down arrow** shape as the pointer, click to highlight the **Employee Name** field.
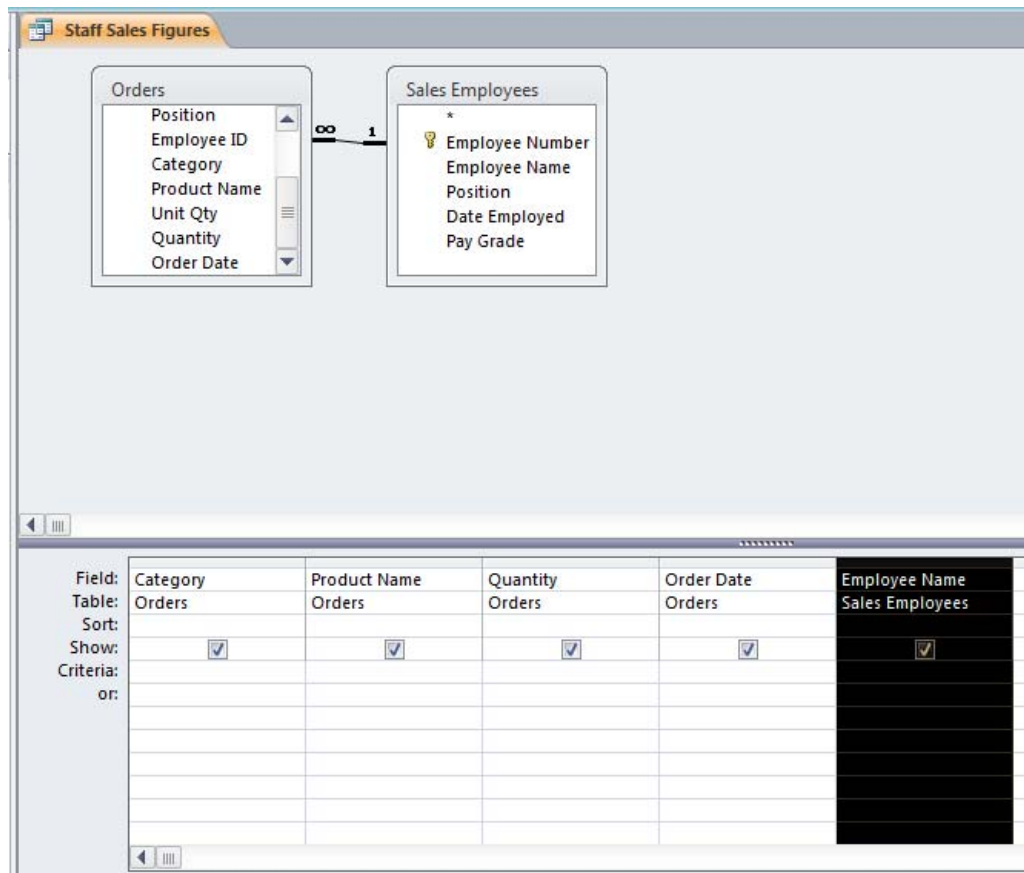
- Move the **pointer** once more to just above the **Employee Name** field name where there is a thin line and until the pointer this time changes to an arrow shape.


- In one movement, click and drag the field to the left of the **Category** field, then release the mouse button.

  NOTE: As always, Access provides a thick black guideline to highlight the current position of the moving field before release. The **Employee Name** field should now be on the left side of the query design grid.
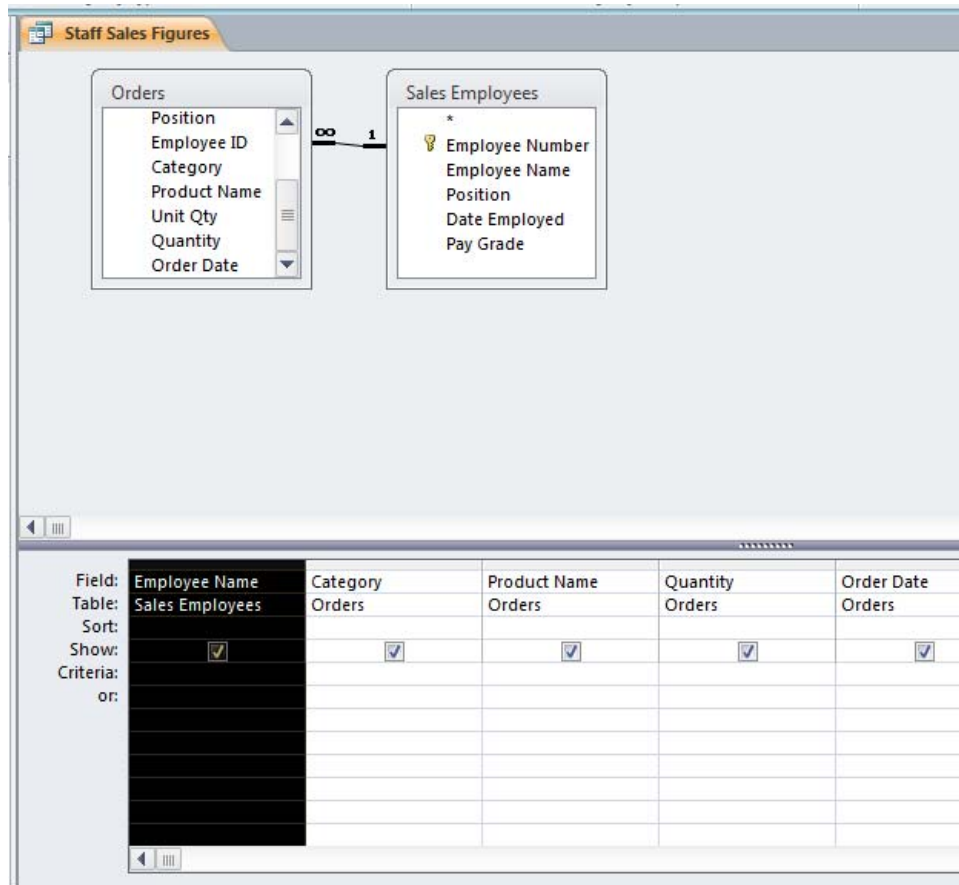
- Using the pointer, click in the **Sort** row under the **Sales Employees** field. Then click on the **down arrow** displayed in this cell.
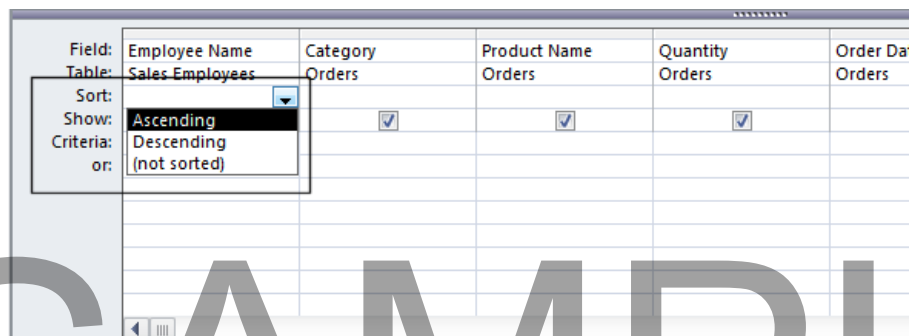
- Select **Ascending** from the drop down option box. When run, this query will display the results in alphabetical order of **Employee Names**, rather than order of **Employee ID**.

- Click into the **Criteria** row of the **Category** field, type in the following word and then press the **Enter** key.

Beverages

When run, this query will return only records which match **Beverages** in the **Category** field.
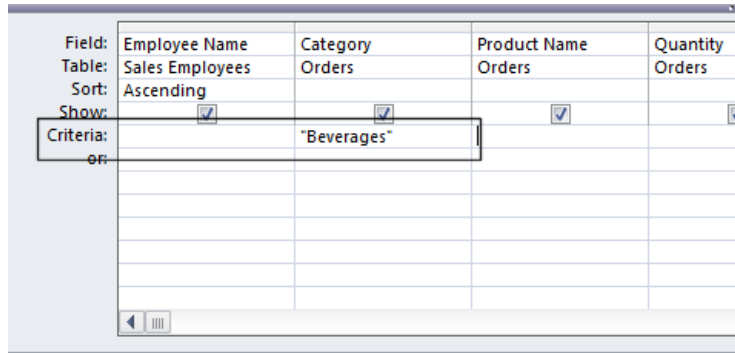
- Click on the **tick box** above the criteria you just entered in the **Category** field. This will remove the tick. Although the **Category** field is used by the query to specify search criteria, the field does not have to be displayed in the final results.
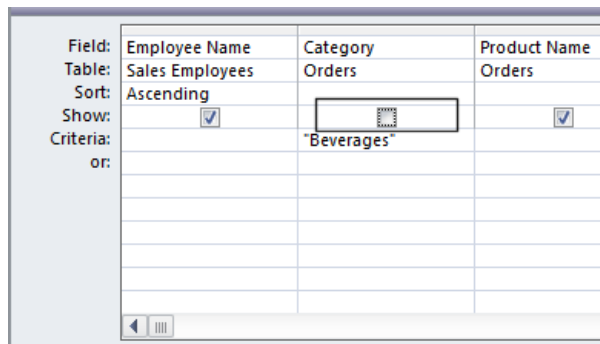
- Click on the **File** tab and click on the **Save Object As** button.
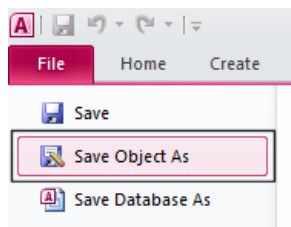
- In the **Save As** dialog box, replace the default name with:

 **Staff Sales Figures – Beverages**
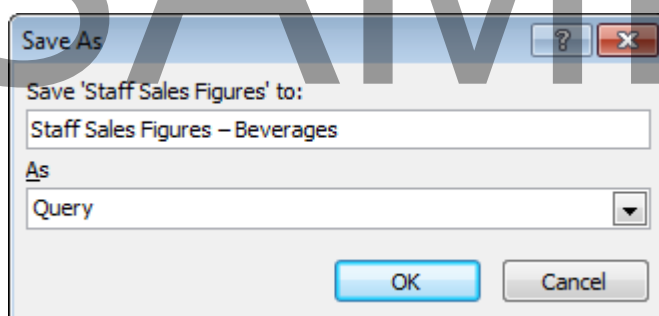
- Click on the **OK** button.

- Click on the **Home** tab and the Navigation Pane displays the newly saved query.
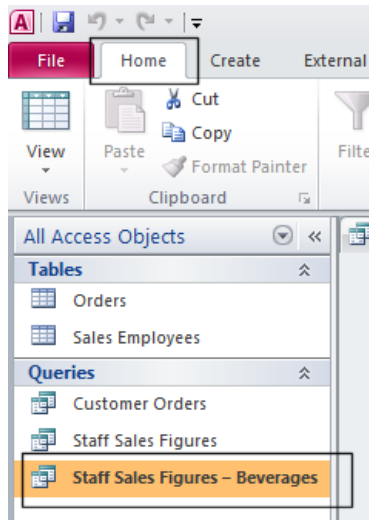
- The query tab also changes to display the new name, as illustrated
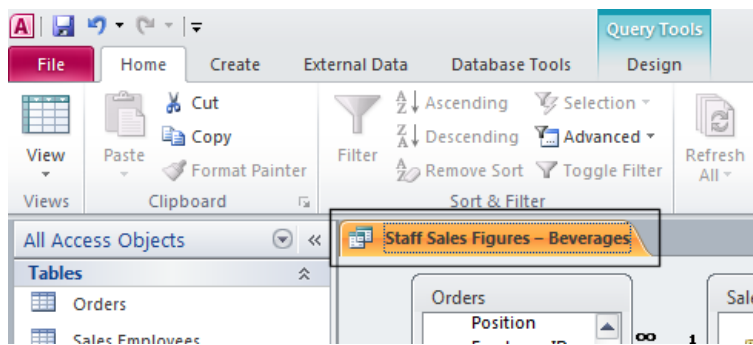
- Click on the **Design** tab and from within the **Results** group click on the **Run** button.
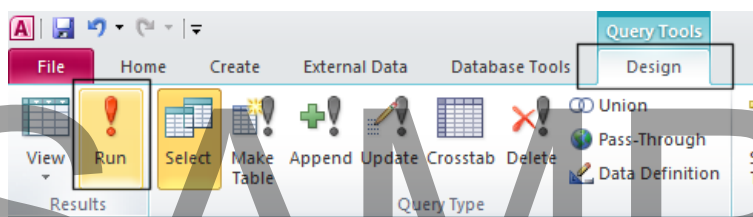
- The results of the modified query are displayed. Only records matching the search criteria **Beverages** in the **Category** field are displayed and the **Category** field is hidden.

- Save your changes and close the Access program.

Refining your query

- Start the Access program.
- Open a database called **Refining a query**.
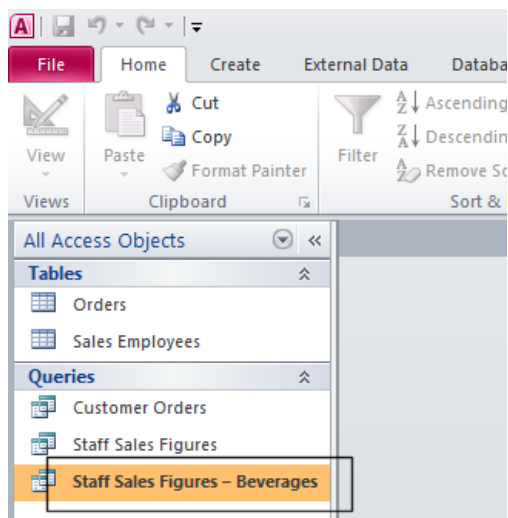
- Double click on the **Staff Sales Figures – Beverages** query.

- What if there was a bonus incentive for staff who sold more than **40** items of any **Sauce** products since **01/01/2007**. Also **Nancy Freehafer** has left the company; therefore we want to exclude her from the search.

- You can use and modify an existing query; however the query should be given a new name and saved before changes go ahead.

- Click on the **File** tab and click on the **Save Object As** button.
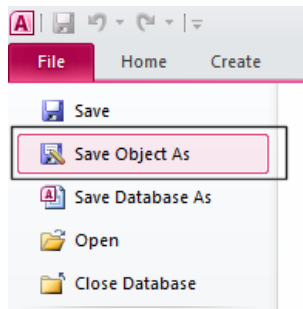
- In the **Save As** dialog box, replace the default name with:

  Staff Incentive – Sauce Sales.
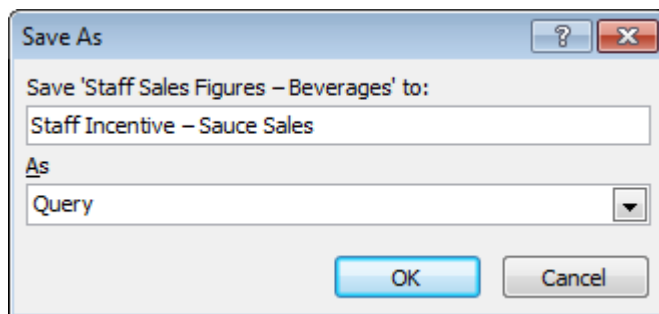
- Click on the **OK** button.
- Click on the **Home** tab and the Navigation Pane displays the newly saved query.
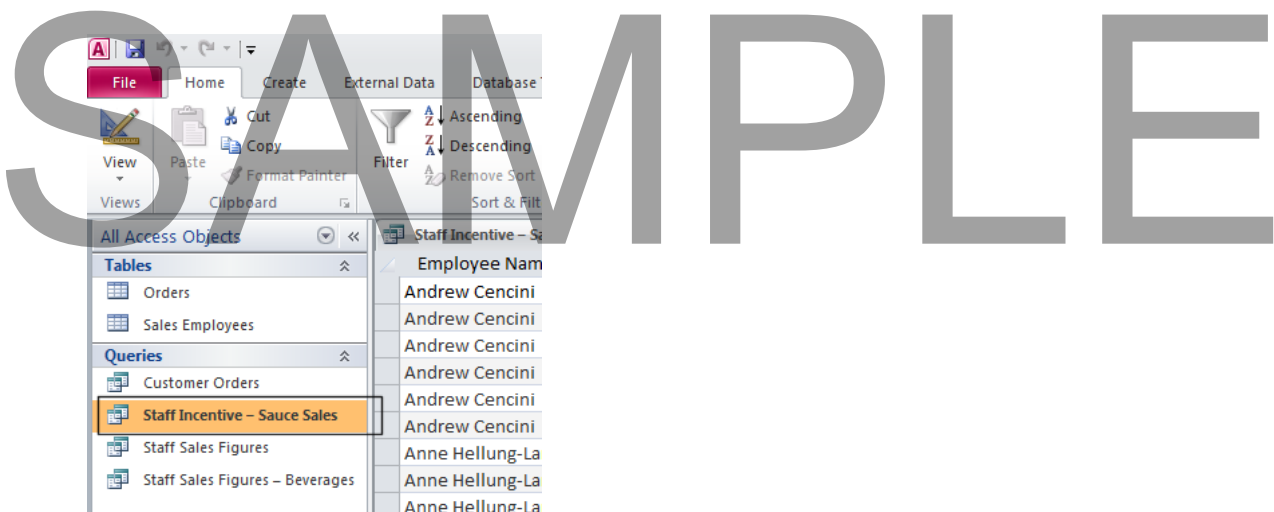
- The query tab also changes to display the new name.
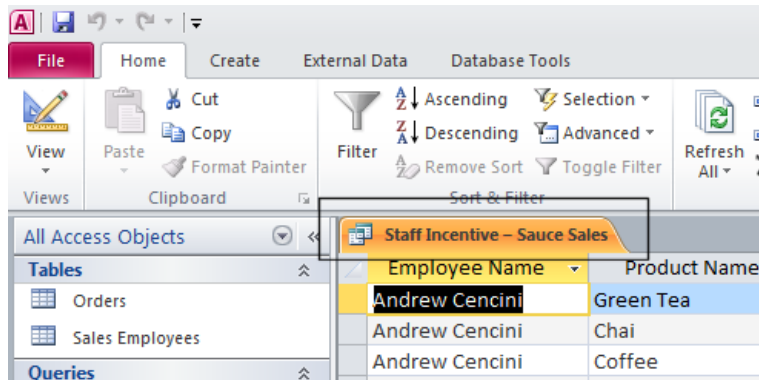
- Click on the **Home** tab, click on the **View** button and then click on **Design View**.
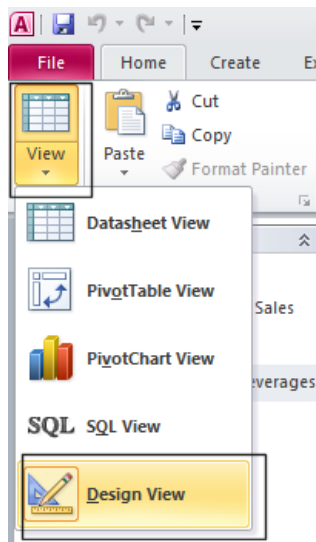
- Move the pointer to just above the **Category** field name where there is a thin grey line and until the pointer changes to a **down arrow** shape. With the **down arrow** shape as the pointer, click to highlight the **Category** field.
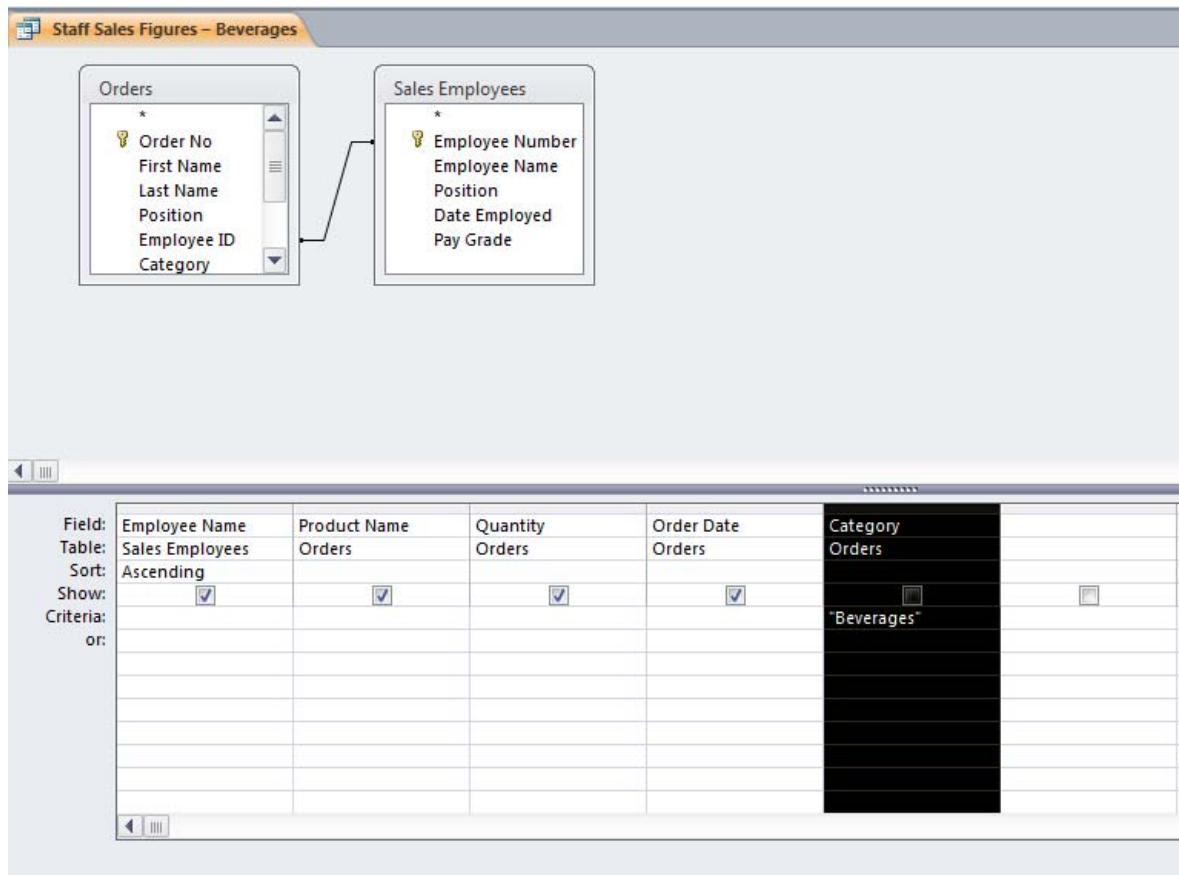
- With the field highlighted, press the **Delete** key on the keyboard to delete the field from the grid.
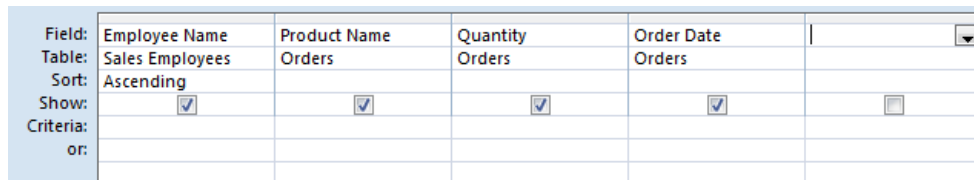
- Click within the **Criteria** row of the **Employee Name** field and type:

<>Nancy Freehafer

Then press the **Enter** key.

- Click into the **Criteria** row of the **Product Name** field and type:

  Like *Sauce*

  Then press the **Enter** key.

  NOTE: Wildcards such as the * can be used to signify, in this case for example, that the word **Sauce** can appear anywhere in the **Product Name** description.

- Click into the **Criteria** row of the **Quantity** field and type the following and press the **Enter** key.

  >40

- Click into the **Criteria** row of the **Order Date** field and type

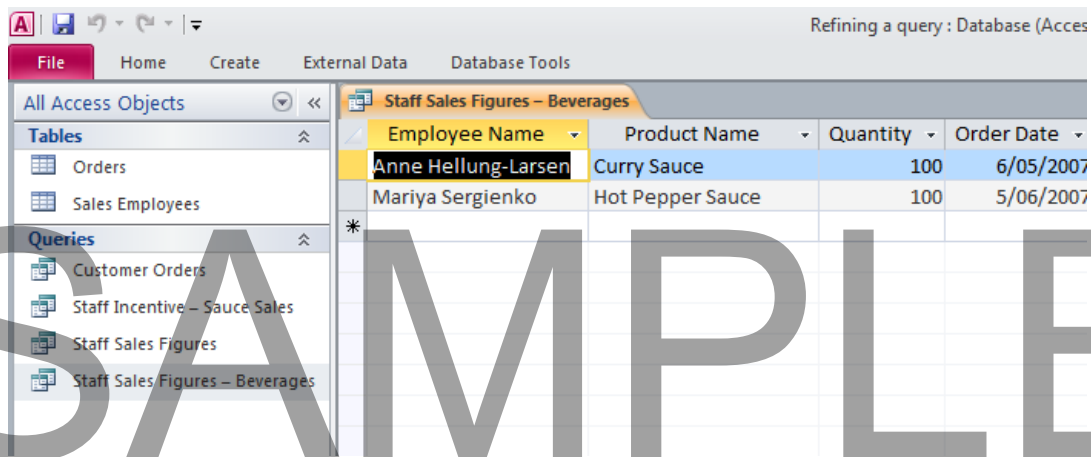 **>=01/01/2007**

  and press the **Enter** key.

- Click on the **Save** button in the Quick Access toolbar to save the changes to the new query.
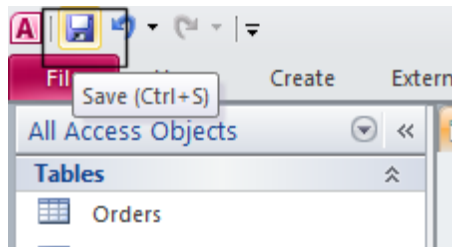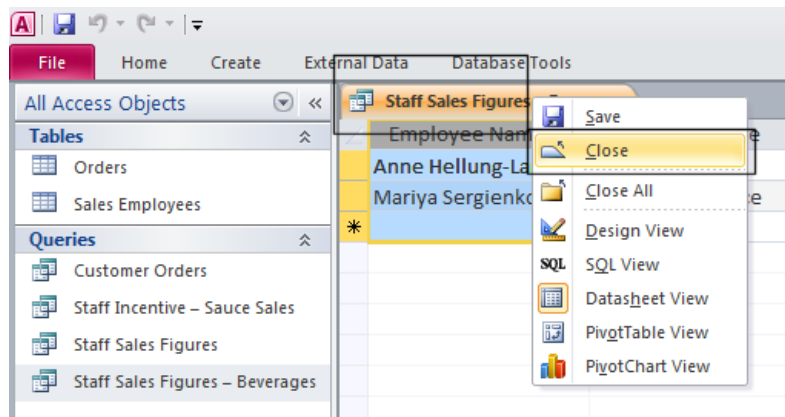

- Click on the **Design** tab and from within the **Results** group click on the **Run** button.
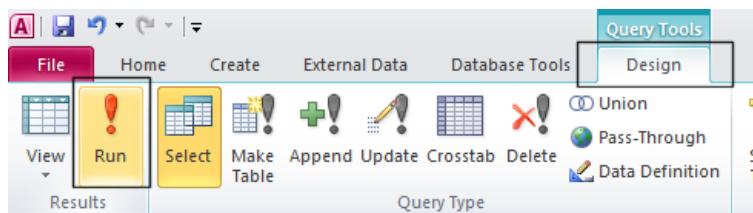
- Your screen will now look like this.

- Right click on the **Staff Incentive – Sauce Sales** query tab and from the popup menu displayed select the **Close** command.

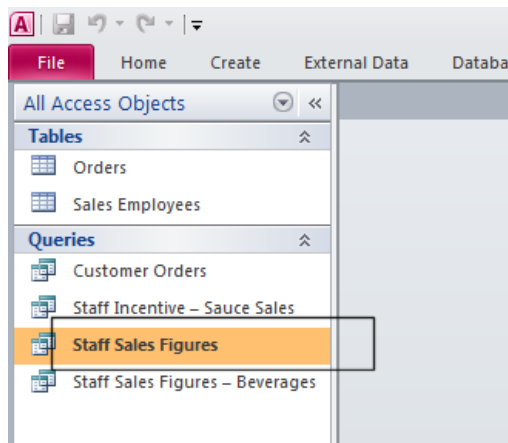- Close the Access program.

What are Wildcards?

- Wildcards are special characters that you can use within a query to specify or exclude certain characters. If you examine the charts below, they should become more understandable.

Wildcard	Function	Examples
%	Matches multiple characters within a string at the start or finish of a character string.	**wh%** would find: when what which It would not find: awhile watch water
_	Matches a single alphabetic character within a string	**B_ll** would find: bull ball bell It would not find: Bail
[ ]	Matches any single character defined within the brackets.	**B[ae]ll** would find: ball bell It would not find: bill
^	Matches any character not defined within the brackets.	**b[^ae]ll** would find: bill

|		bull
		It would not find: ball bell
-	Matches any one of a range of characters defined within the brackets, which must be defined in ascending order, i.e. A to Z and not Z to A.	**z[a-c]z** would find: xaz xbz xcz

Deleting a query

- In the **Navigation Pane**, click once to highlight the **Staff Sales Figures** query.

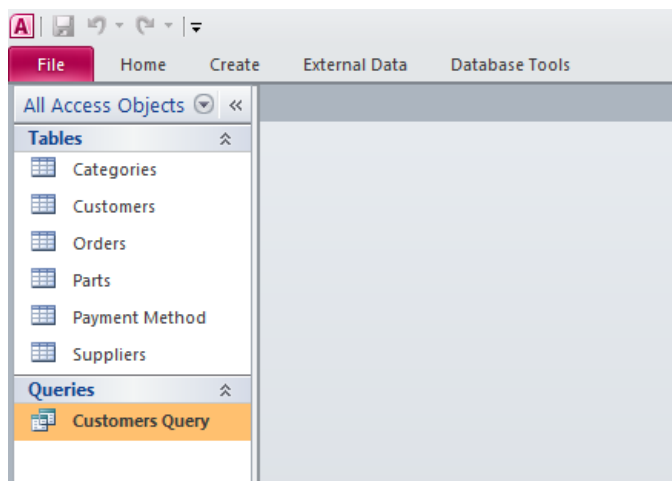- Press the **Delete** key on the keyboard. Access displays a warning dialog box.
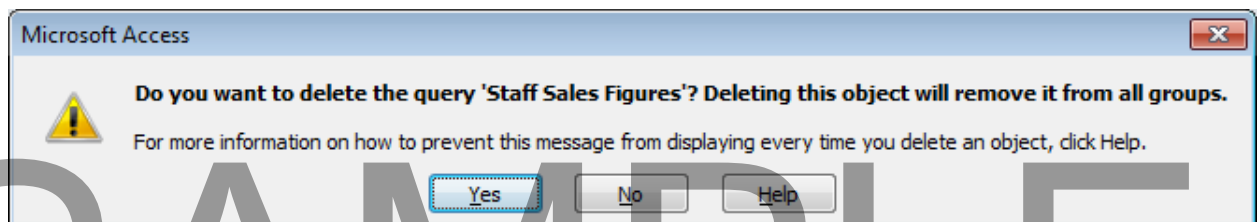
- Click on the **Yes** button to continue and delete the query. The screen will now look like this
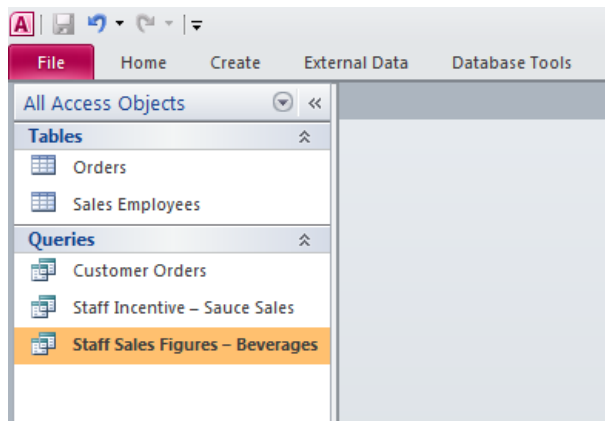
- Close Access.

Hiding and un-hiding fields within a query

- Open the Access program.
- Open a database called **Hiding**. Your screen will look like this.

- Double click on the query called **Customers Query** and you will see the following.

- To hide the **City** field, we need to select the **City** column. To select this column click at the top of the City column, as illustrated below.

- Right click over the top cell containing the word **City** and from the popup menu displayed select the **Hide Fields** command.

- The screen will change as illustrated below. The **City** column has been hidden.

- To unhide the hidden column you need to select the columns either side of the hidden column, as illustrated below. Now when you right click over the selected columns you will now see the **Unhide Columns** command.

- Clicking on this command will display the **Unhide Columns** dialog box.
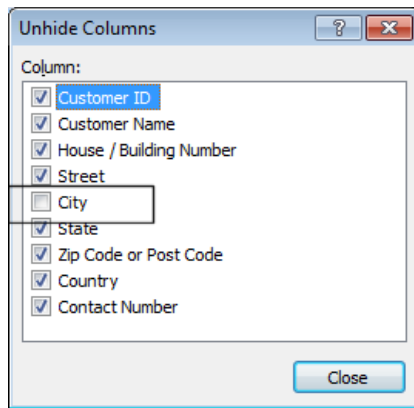
- Click on the column that is hidden, in this case **City** and then click on the **Close** button. The column will then become visible, as illustrated below.

- Save your changes and close the database.

SAMPLE

Reports

What are reports?

- In Access, a report is a summary generated from information in a table or query. Access provides you with a number of tools that help you to quickly build reports that present the data in an organised, meaningful and easy-to-read layout. These reports can then be printed.

- You can use the commands on the **Create** tab to create a simple report with a single click, use the **Report Wizard** to create a more complicated report or create a report from scratch by adding all the data and formatting elements.
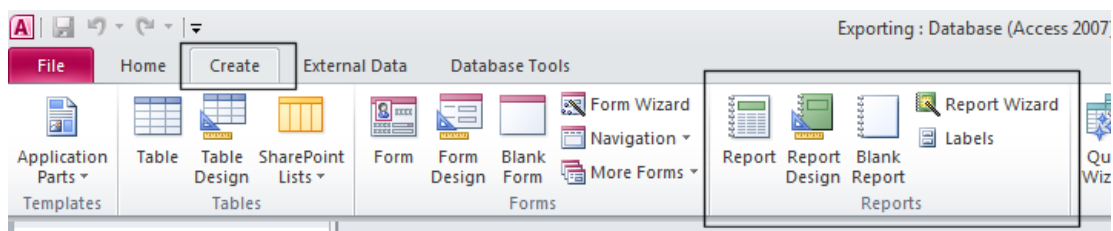
- Whichever method you choose, you will probably need to make at a few changes to the design, for example, adjusting column positions and widths to fine tune the final output of the report (how it displays on the screen or printed).

Creating a simple report

- Reports are based on information in tables or queries. If the report is to be based on information contained in more than one table, a relationship must exist, however it is far more likely that a query has already been created to produce the information required for the report.

- Click on the **File** tab and click on **Open** and open a file called **Reports** contained within your samples folder.

- The database opens with two tables (**Orders** and **Sales Employees**) and two queries (**Beverage Sales** and **Customer Orders**) displayed in the Navigation Pane.
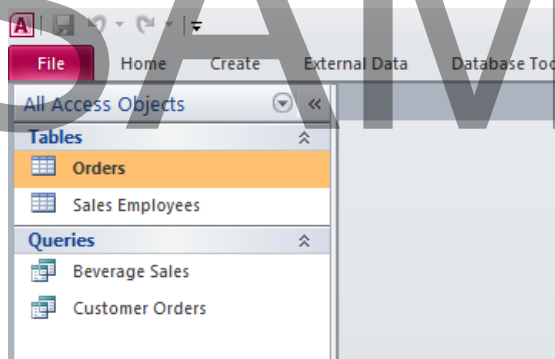
- In the Navigation Pane, click once on the **Beverage Sales** query to highlight the query, but do not open it.
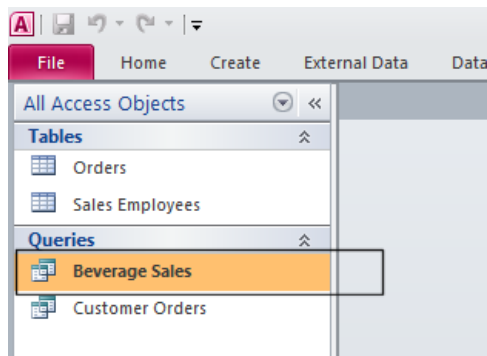
- Click on the **Create** tab and from within the **Reports** group, click on the **Report** button.
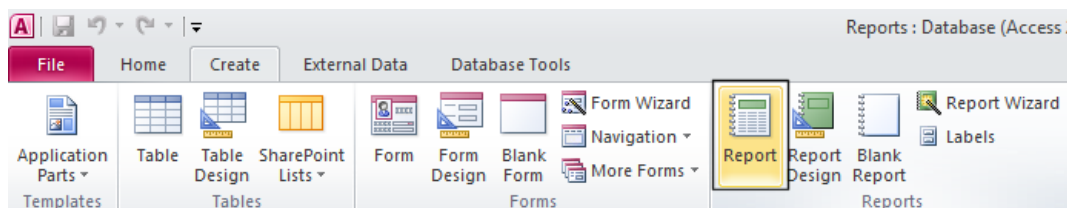
- A report based on the **Beverage Sales** query is displayed on your screen.

- The simple report is displayed for any modifications that may be required. Editing and modifying a report is similar to editing a form. The title, field text labels and logo images can all be resized, moved or deleted as necessary. Even the style can be altered at the click of a button using the pre-set styles in the **AutoFormat** group.

- Simple reports are not saved until you either click on the **Save** button in the **Quick Access** toolbar or attempt to close the report, at which point Access will prompt you to save the report.
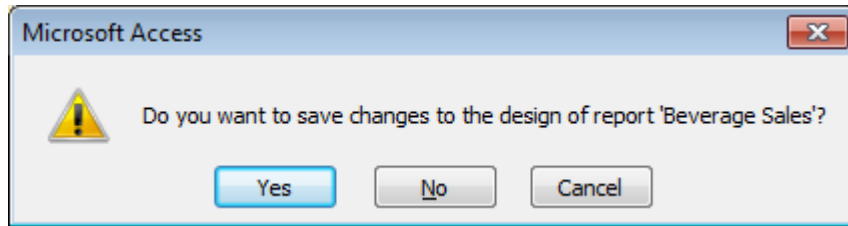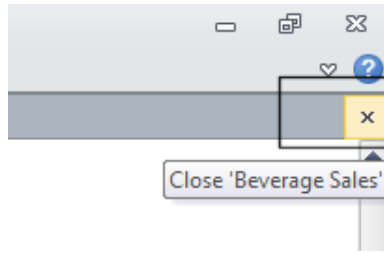
- Click on the **Save** button.
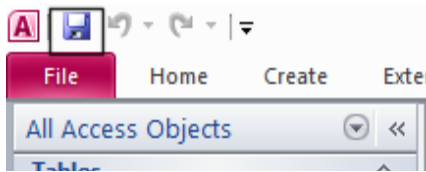
- The **Save As** dialog box is displayed.
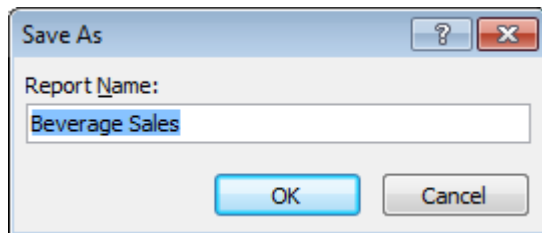
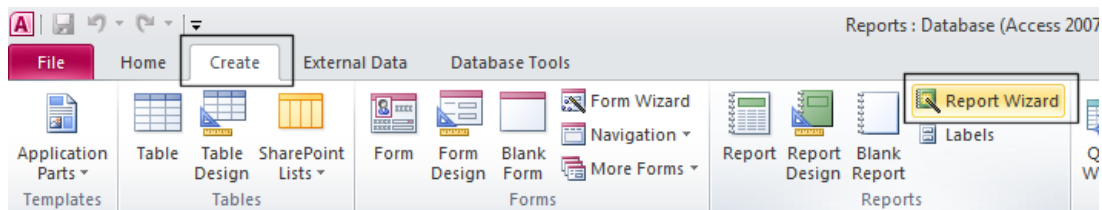- Click on the **OK** button. The new report is displayed in the Navigation Pane.
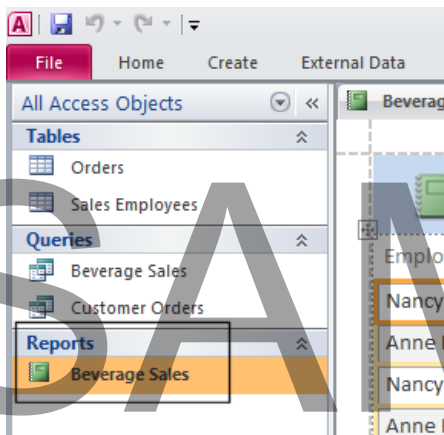
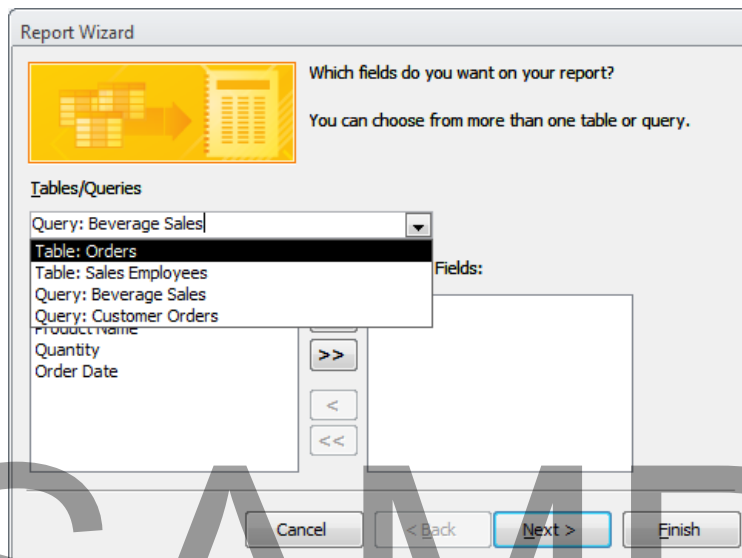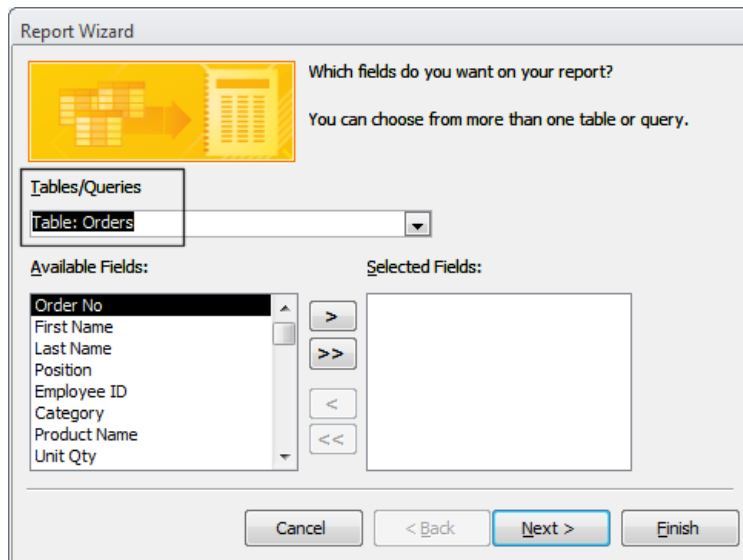- Click on the **Close** button towards the top right of the report window, to close the report.

Using the Report Wizard

- Click on the **Create** tab and from within the **Reports** group click on the **Report Wizard** button.

- First fields from one or more table must be selected. Click on the **Tables/Queries** dropdown list and select the **Table**: **Orders**.

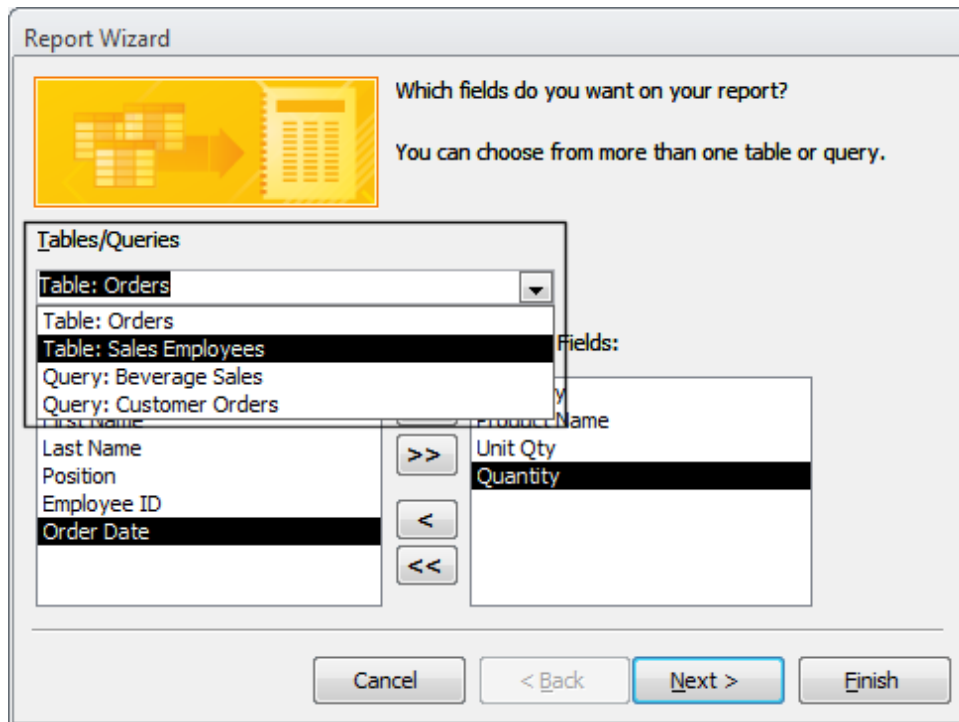- The dialog box will now look like this.

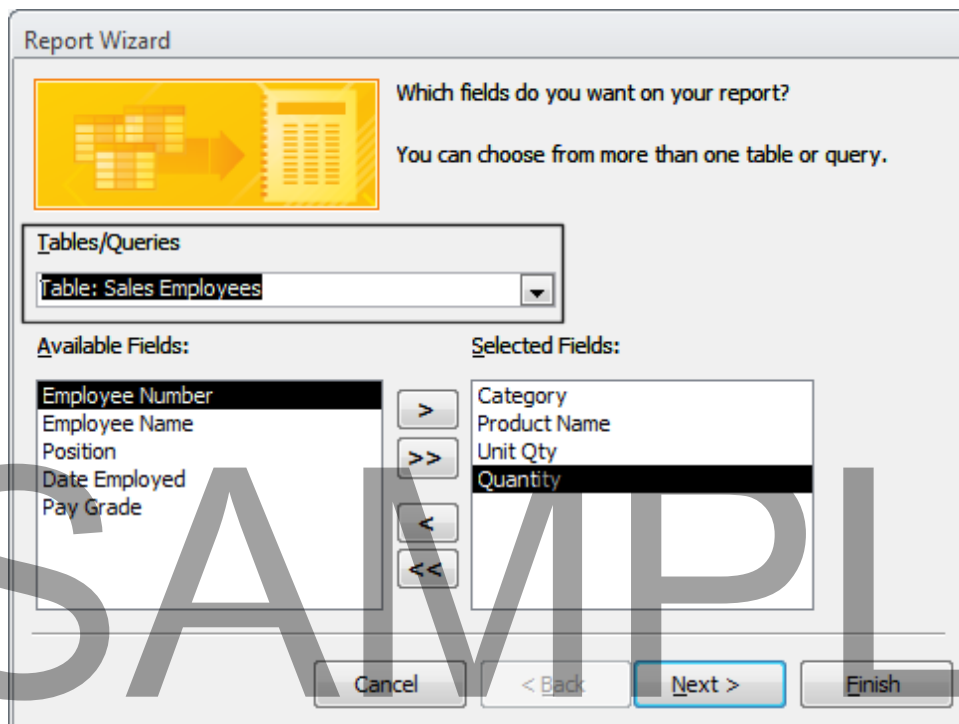- From the **Available Fields**, double click each of the follow fields:

    Category
    Product Name
    Unit Qty
    Quantity
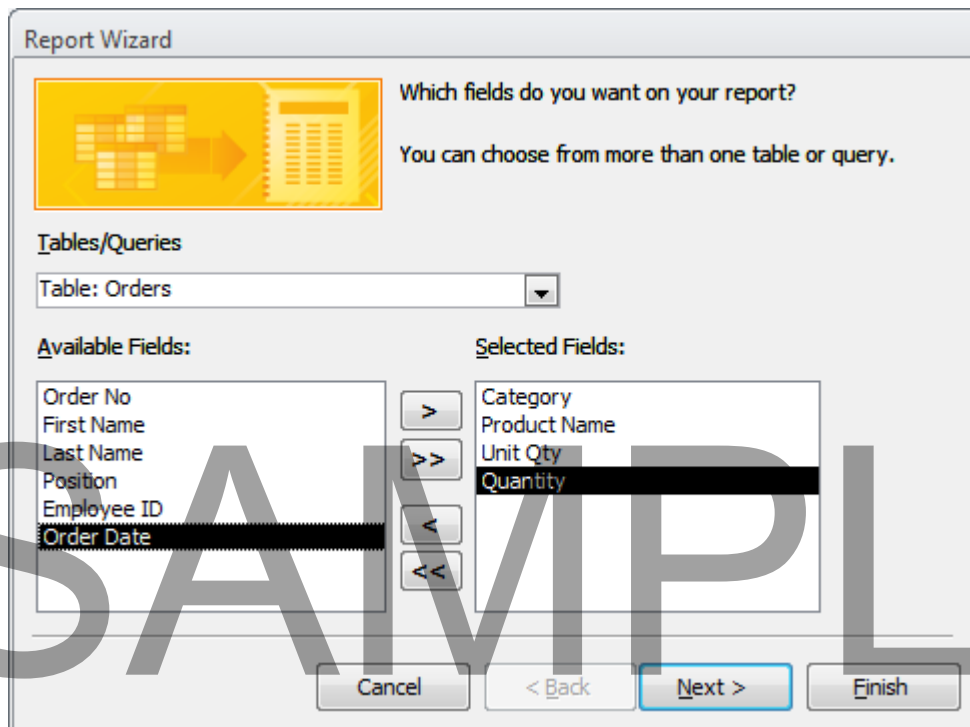
- Click on the **Tables/Queries** drop down list and select the **Table**: **Sales Employees**.

- The dialog box will now look like this.

- From the **Available Fields**, double click on the **Employee Name** field.

NOTE: The report will now use information from the **Orders** table and also from the **Sales Employees** table.

- Click on the **Next** button.

- Leave the default **by Orders** selected.

    NOTE: When the report is complete, because by **Orders** is selected, information

will be grouped according to a field or fields in the **Orders** table. This field or fields will be selected in the next section of the wizard. For example, the ideal field to use to group information in the report is the **Category** field. If **by Sales Employees** was selected instead, the employees names would take priority in the report and products would be grouped under each employee.

- Click on the **Next** button.
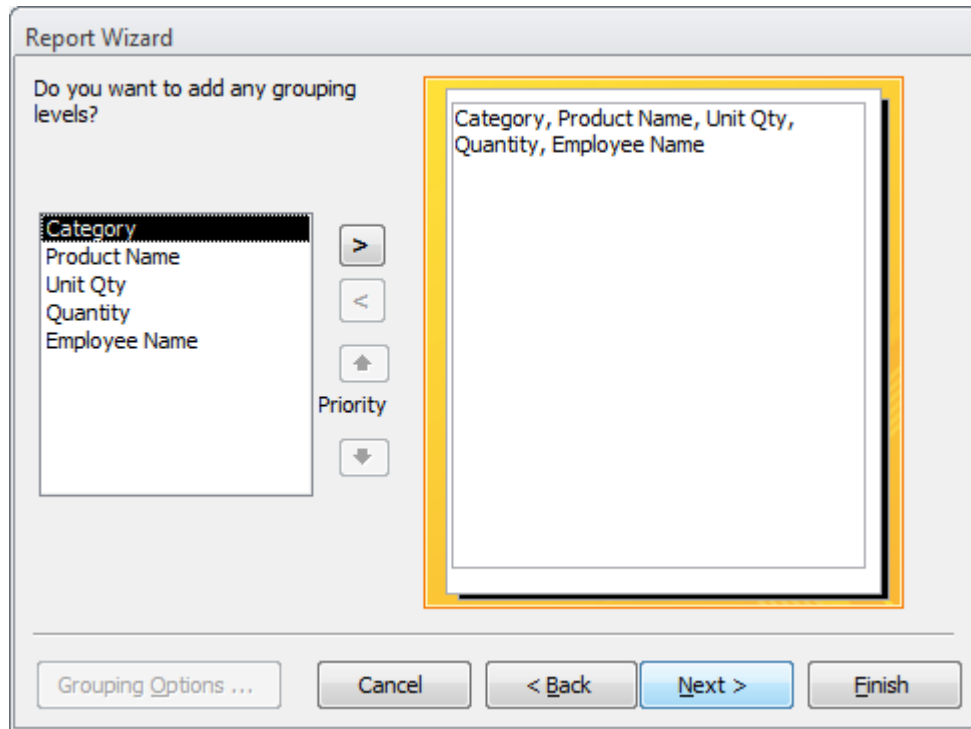
NOTE: When the report is complete, you will see that the report is broken down into **Categories** first, then **Products**, **Quantities**, **Dates** and finally **Employees**.

- Select **Category**, and then click on the right arrowed button to add the grouping level.

- The dialog box will now look like this.
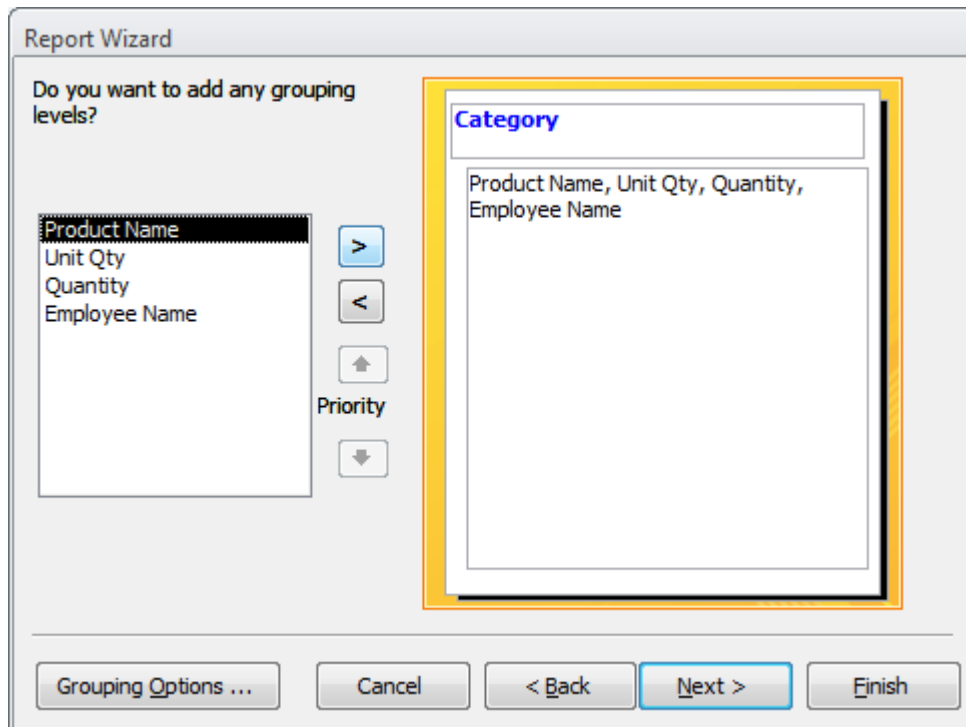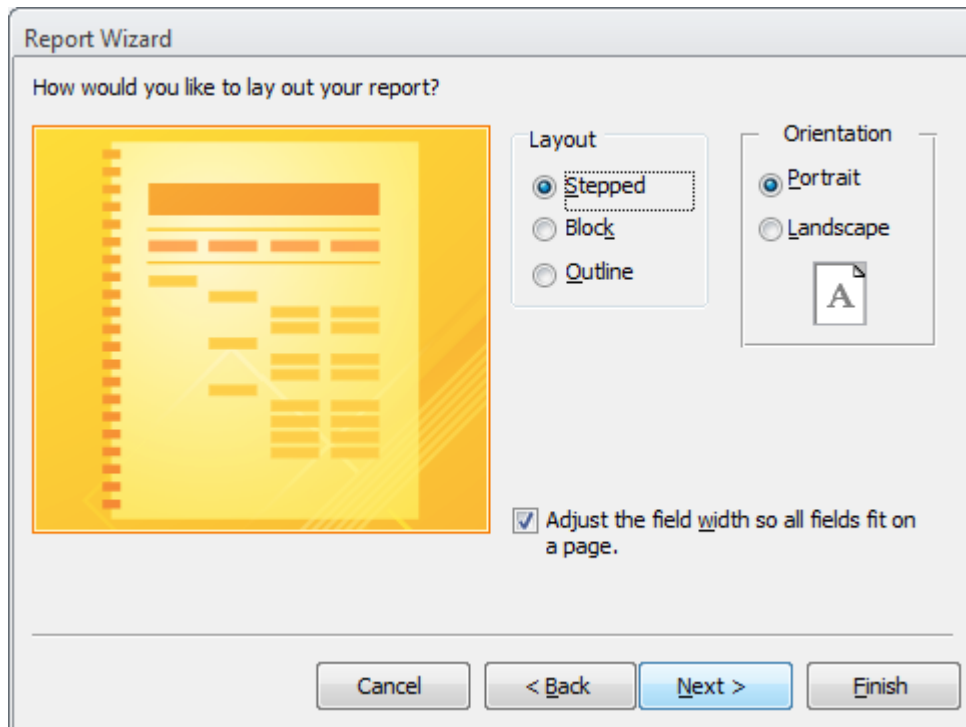
- Click on the **Next** button.
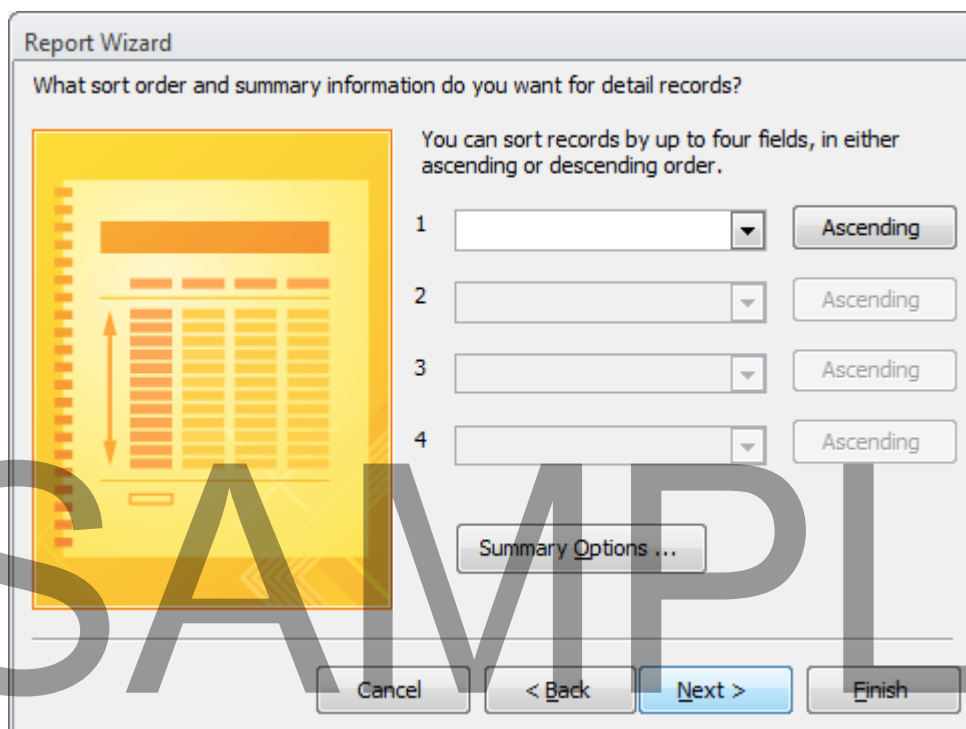
- In the **Sort Order** dialog box, click on the drop **down arrow** and select **Product Name**.

- The dialog box will look like this.

   NOTE: By selecting a field, in this case the **Product Name** field, when the report is complete, information will be organised in **Ascending** order of **Product Name**, within each category.

- Click on the **Next** button. Leave the **Layout** as the default setting.
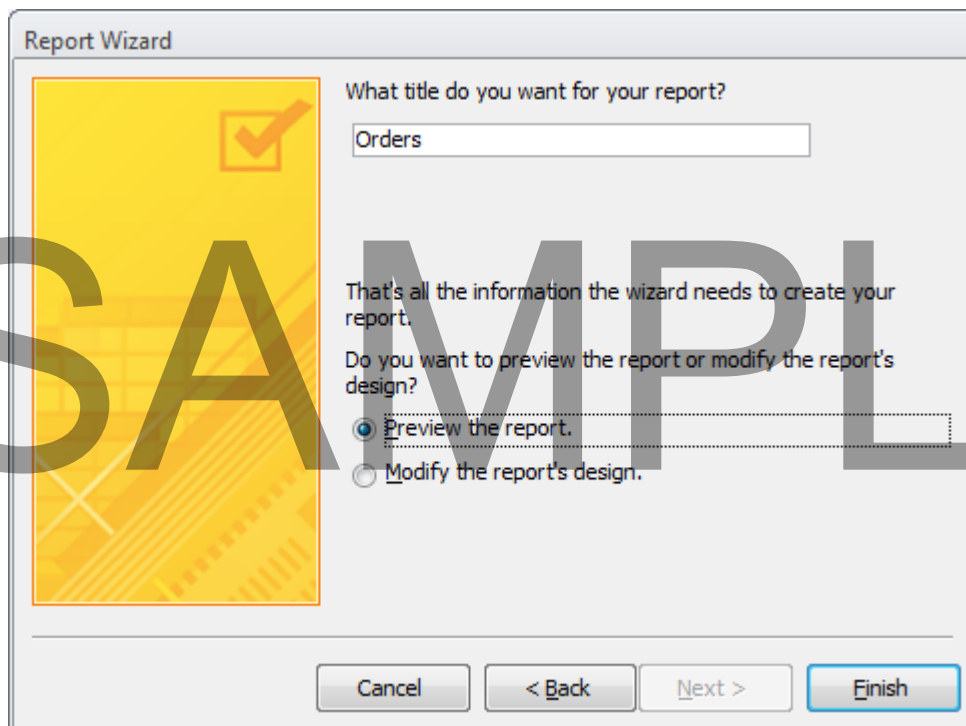
NOTE: The three **Layout** options control how the report will be laid out when finished. Depending upon the number of fields included in a report, consideration should be given to the report **Orientation**. If there are too many fields for a single page width, select **Landscape**, otherwise (in this case) Portrait will be sufficient. Orientation can be changed at any stage before printing.

- Click on the **Next** button.

- Access has given the report the name **Orders**. Click on the **Finish** button to accept the name and complete the wizard. The report is now displayed in Print Preview view. Take a while to see what has been produced.

- Click on the **Close Print Preview** button.
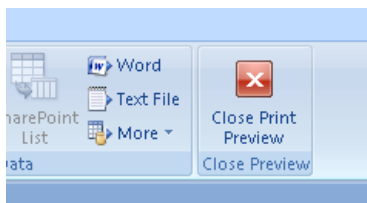
- The report will be displayed in Design View.
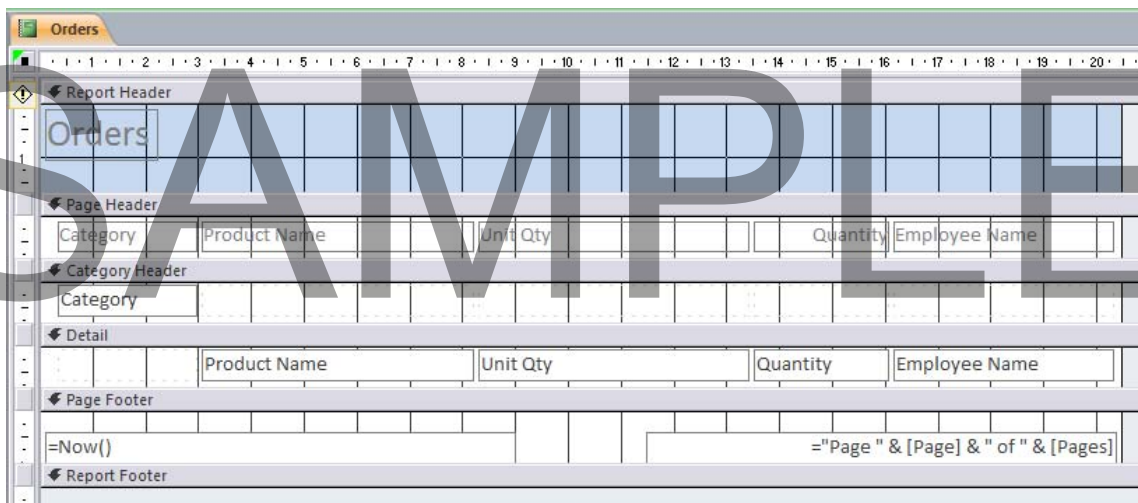
Modifying the layout of a report

- Click on the **Layout View** button, displayed at the bottom-right of the screen.

- The report will be displayed as illustrated below.

Widening a report column

- We need to widen the **Category** column as some of the items within the column are wider than the column. To do this click on the **Category** field name to first select the column.

- Move the pointer to the dotted line running down the right side of the **Category** column. When the pointer changes to a horizontal line with arrows on each end, click and drag the line to the right, increasing the width of the column until it is wide enough to display all categories.

- The columns will now look like this

Modifying the report title

- Click once on the report title (**Orders**).

- Double click to highlight and select the word **Orders**.

- Type in the following to replace the existing label and press the **Enter** key to complete the modification.

Product Orders by Category

- Position the pointer over the report title box again, this time until the pointer changes to crosshair.

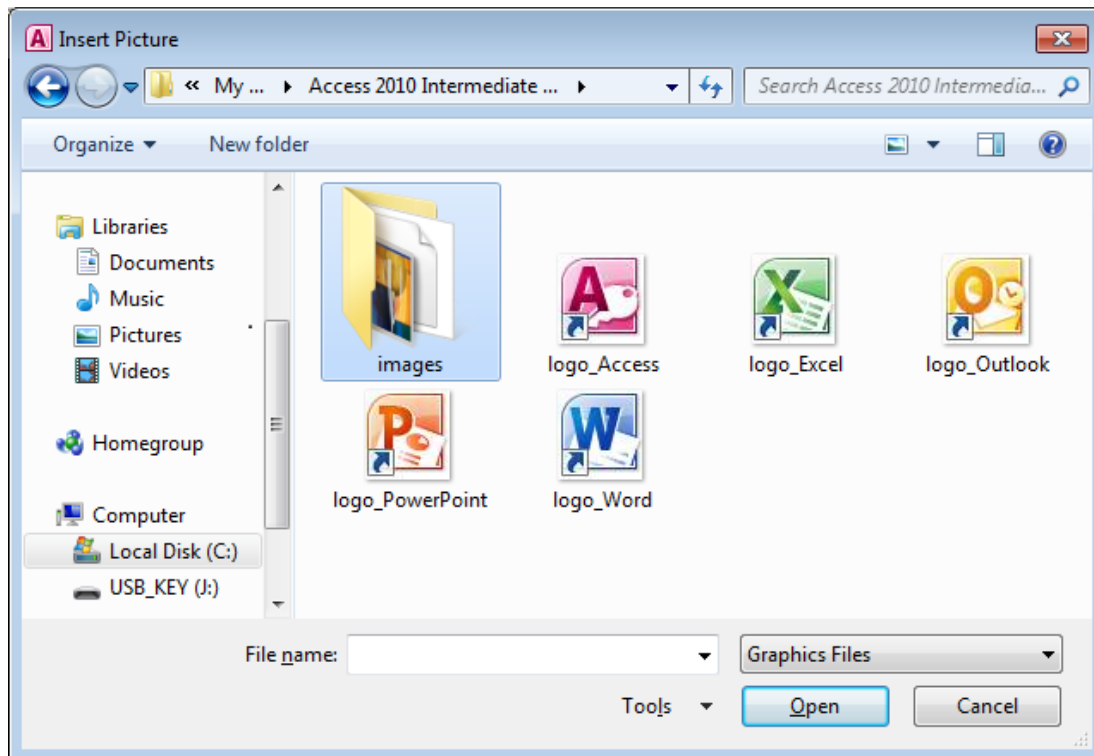- Click and drag the report title box to the right as illustrated below.
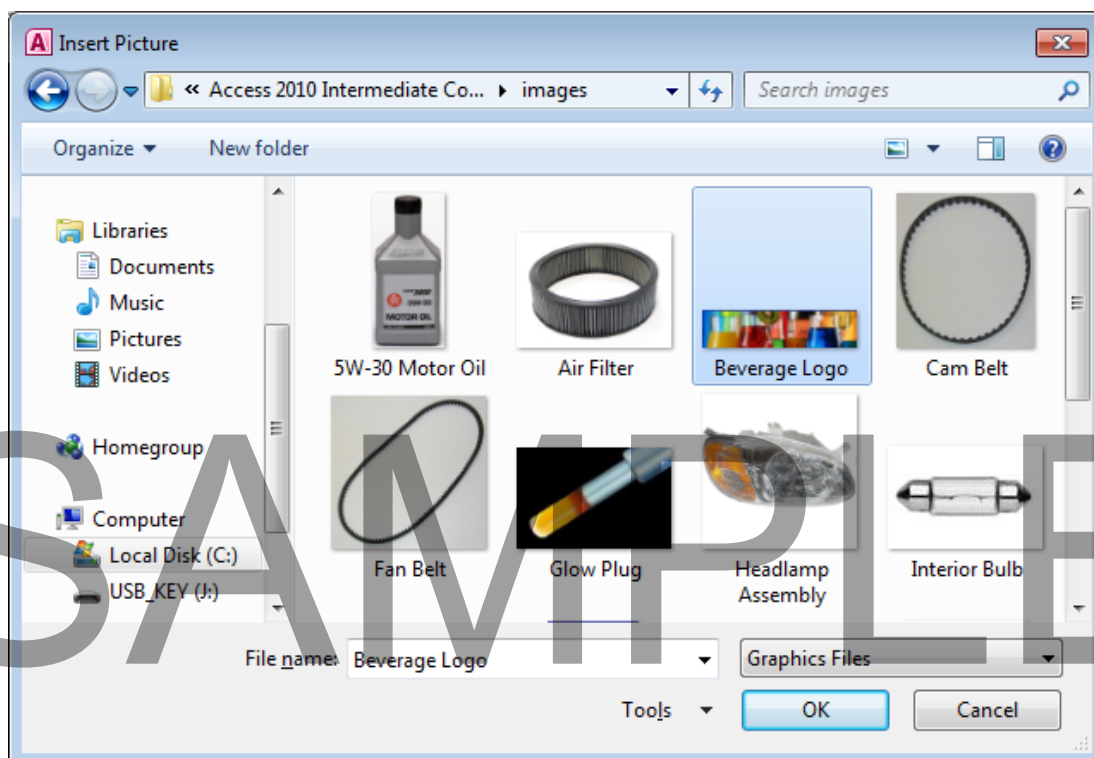

Adding a logo to a report

- Click on the **Design** tab and from within the **Header / Footer** group click on the **Logo** button.
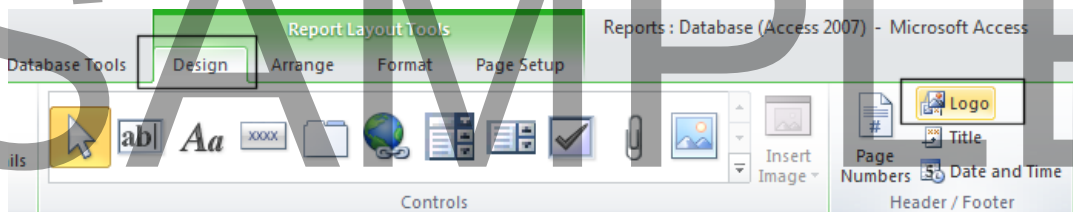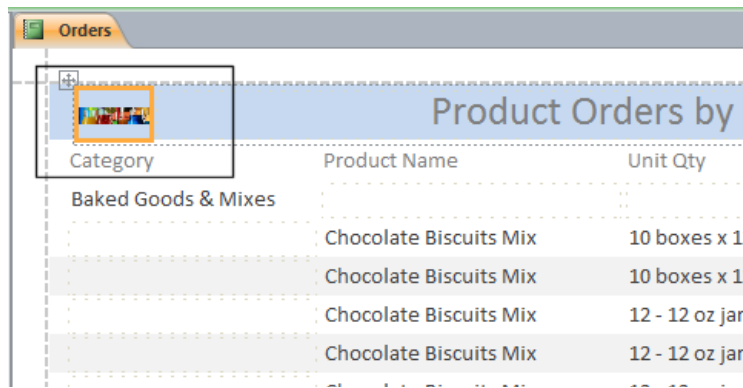

- The **Insert Picture** dialog window is displayed.

- Double click on the **Images** folder to display your sample images.

- Double click on the **Beverage Logo** file to add the image to the report.

- The new image is too small. Position the pointer over the right edge of the logo box until the pointer displays an arrow.


- Click and drag the right side of the box to the right (expand size). Expand the box a small amount and let go of the mouse button.

- As the box expands, the image increases in size. Keep expanding the box until the image fits in the box from top to bottom.

- With the logo resized, position the pointer over the report title box again, this time until the pointer changes to crosshair.
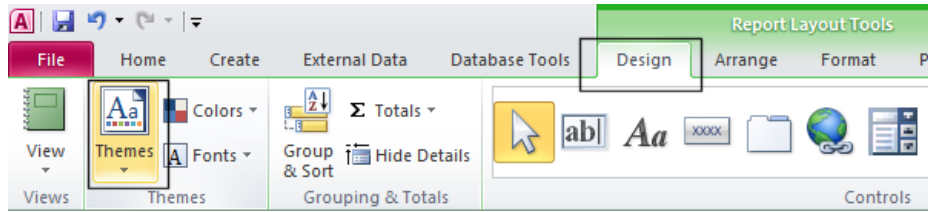

- Click and drag the title box to the left until there is a small gap between the title and the new logo, as illustrated below.
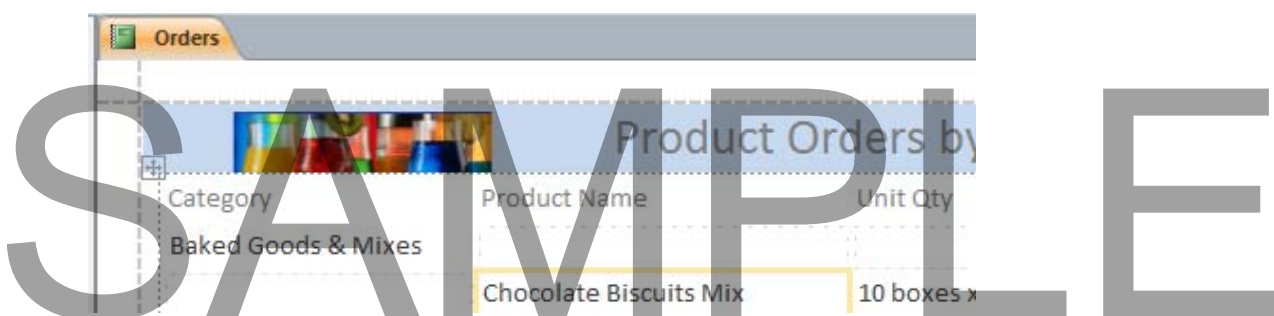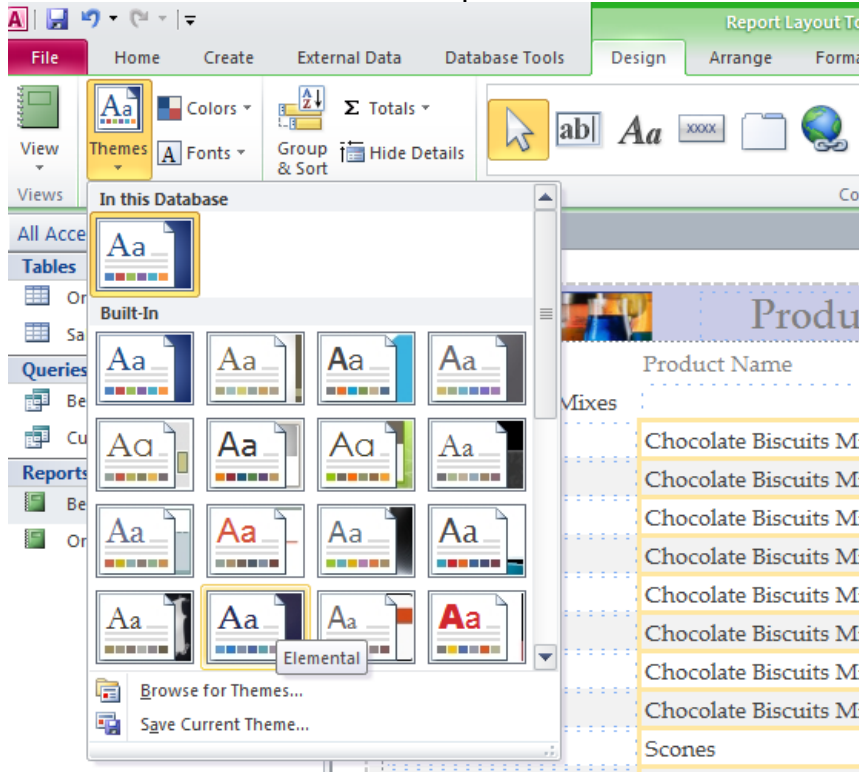

Formatting a form using themes

- Click on the **Design** tab and within the **Themes** group, click on the **Themes** button.

- A drop down theme menu will be displayed. As you move the mouse pointer over each theme the format will preview the theme formatting.
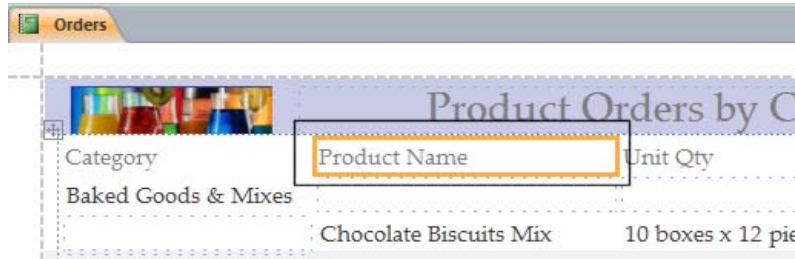

- Click on any one of the themes and the theme will be applied to the form.

Modifying field names within a report

- Click on the **Product Name** field title.
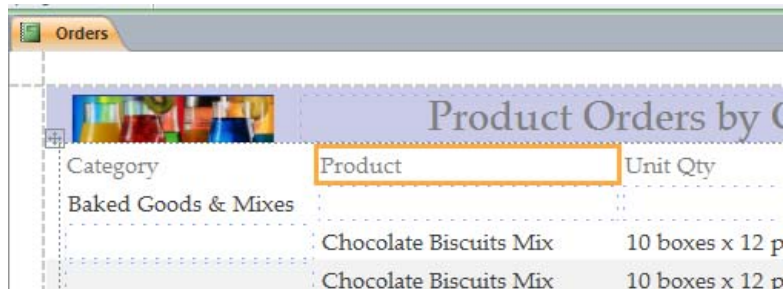

- Double click on the word '**Name**' and press the **Del** key.
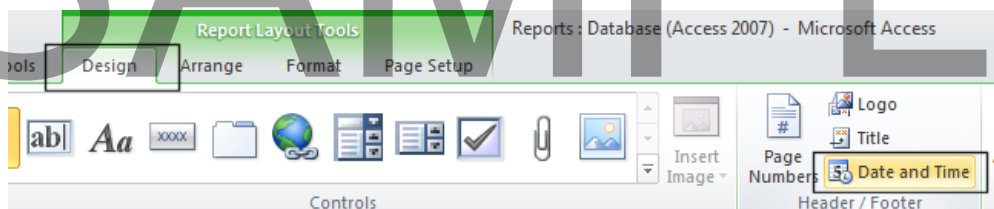

- Press the **Enter** key. The column will now be called **Product**, rather than **Product** Name.

Inserting and formatting the date & time

- Within the **Design** tab you will see the **Header / Footer** group. Click on the **Date and Time** button.

- The **Date and Time** dialog box is displayed.
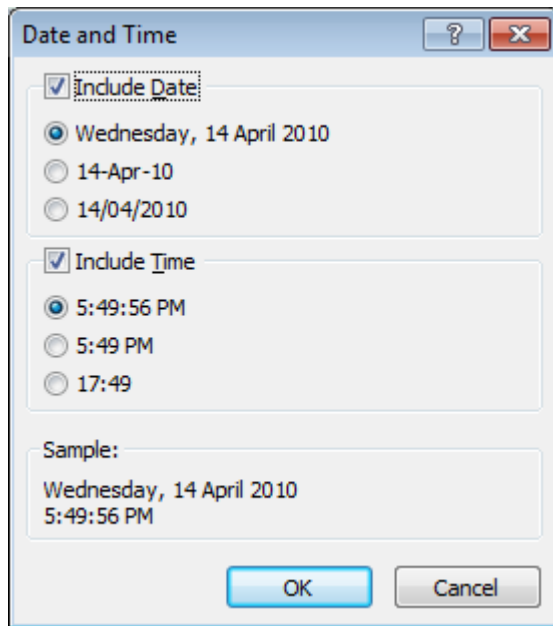
- Click on the **OK** button.
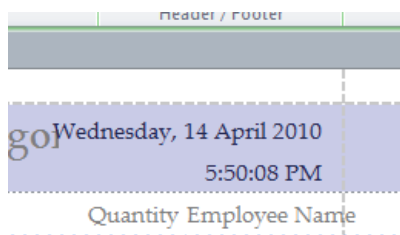
- The date and time are inserted into the top (header) section of the report to the right of the report title but are **very** hard to read as they are displayed using a dark coloured font, on a dark background.

    NOTE: The date and time are inserted separately; therefore each will require individual modification.

- Click once on the **date** to select it.
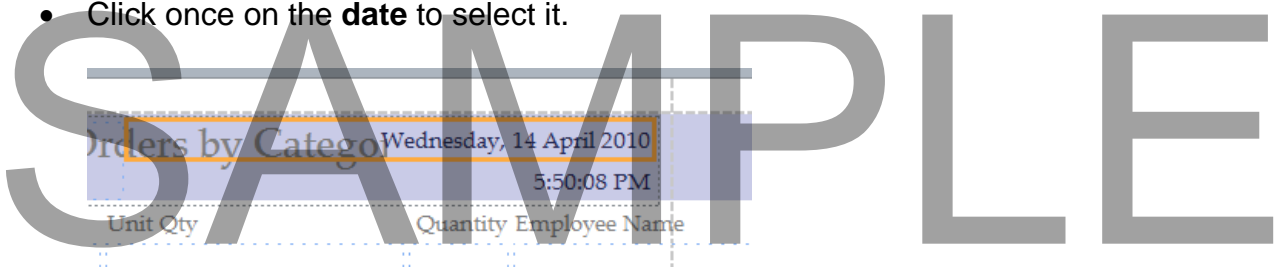
- Within the **Home** tab you will see the **Text Formatting** group.
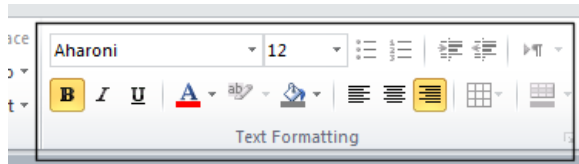
- Use the normal font formatting techniques to make the date display using bold. Also increase the font size and maybe use a different font type.

- Repeat the steps to modify the time.

Adding existing fields to a report

- Click on the **Design** tab, and within the **Tools** group, click on the **Add Existing Fields** button.
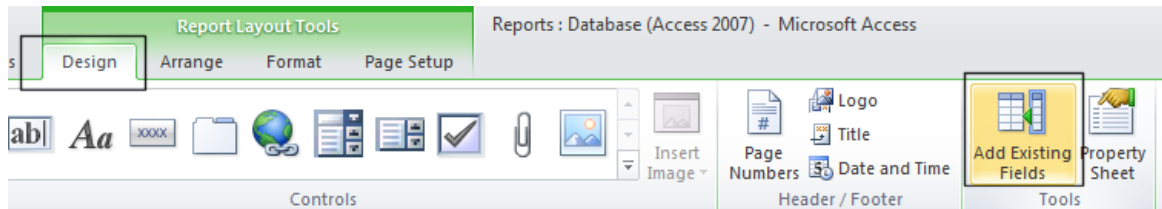
- The **Field List** opens (to the right of your form) and displays the tables within the database and the available fields.
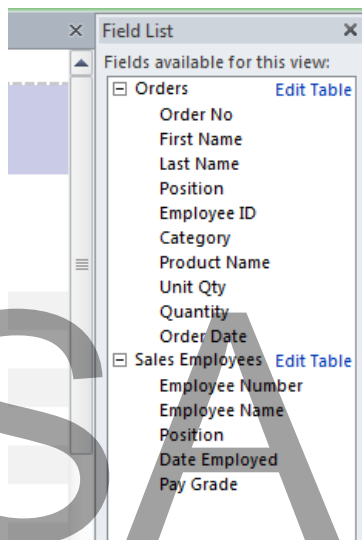
- Click within the **Employee Name** column.
- In the **Fields List,** double click on the **Position** field to add it to the report.
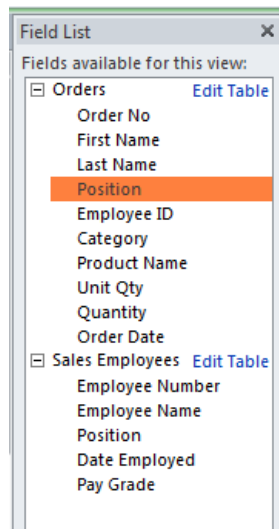
- The new field will be displayed as illustrated.

NOTE: When adding fields to an existing report, the new field is added to the right of whichever field (column) is selected. For example, if the **Employee Name** was selected, the **Position** field would have been inserted to the right of **Employee Name**.

- Click on the **Close** button to close the **Field List**.
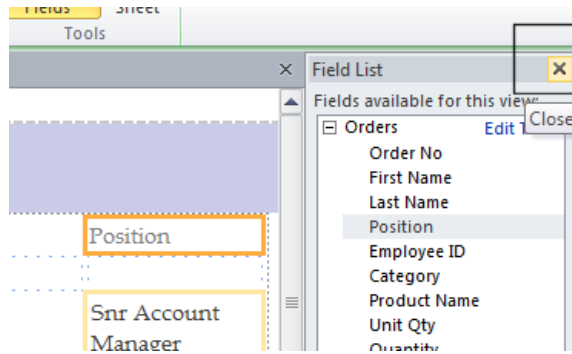
Resizing reports for printing

- With the field list closed and the **Unit Qty** field added to the report, it is possible that you may to see a dotted line running down and through the field displayed at the extreme left of the report.

NOTE: This line represents print guidelines (margins) and in this case, indicates that part of the field will fall outside of the printing area. If printed, the report would be two pages wide, instead of one.

- The fields need to be resized to fit within the dotted line.
- Click in each of the field name at the top of each column and one by one, use the normal drag and drop techniques to resize each column so that you will be able to print on a single page.

- Save and changes you have made and close the Access program.

Totals

- Start Access.
- Open a database called **Totals**.
- Double click on a report called **Orders**.

- The screen will look like this.

- The report is to include the total number of items sold and the number of sales in each category.
- Click on the **Product** field name.

- Click on the **Totals** button, located under the **Design** tab within the **Grouping & Tools** group
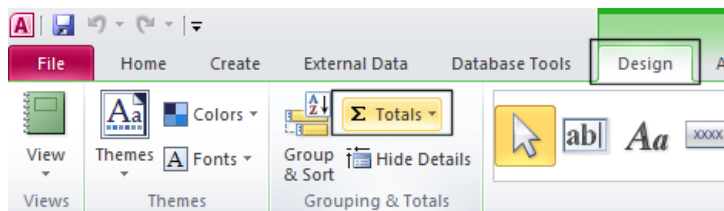
- From the drop down list displayed, select **Count Records**.
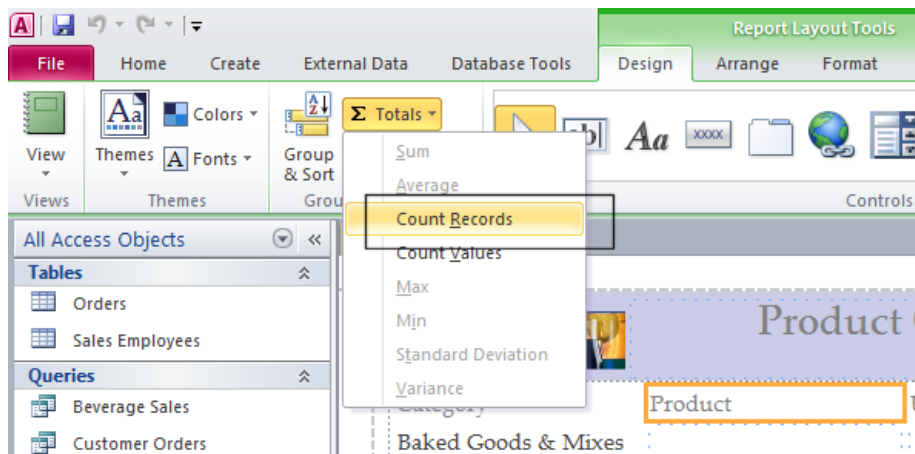
- Click on the **Quantity** field name.

- Click on the **Totals** button, located under the **Design** tab within the **Grouping & Tools** group
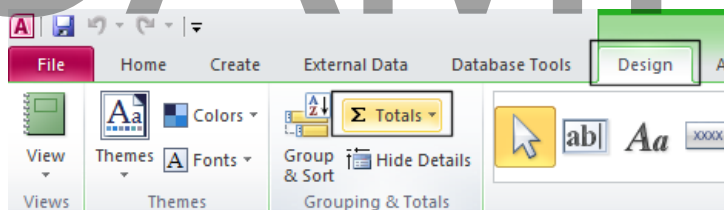
- From the list displayed select the **Sum** command.
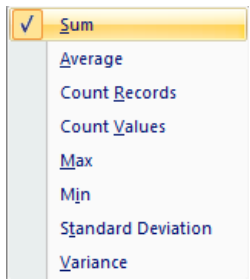
- Below each group (category) a value is displayed in both the **Product Name** and **Quantity** columns.

- On the last page of the report, grand totals of all groups are also displayed.

   NOTE: The format of the totals can be modified by selecting them first, then from the **Font** group in the **Home** ribbon tab, selecting a different size, font or simply making them bold.

Closing a report

- Right click on the **Orders** report tab. Select the **Close** command from the list displayed, to close the report.
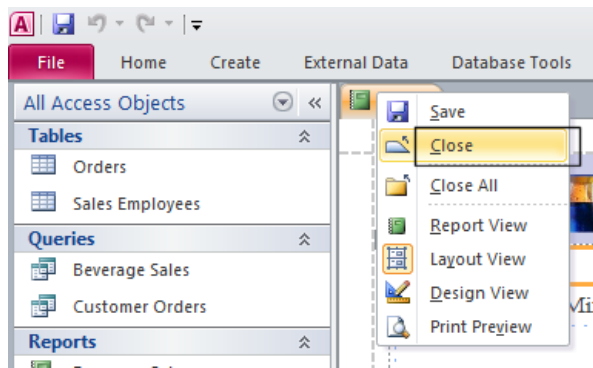
Deleting a report

- In the Navigation Pane, click once on the **Beverage Sales** report to highlight.
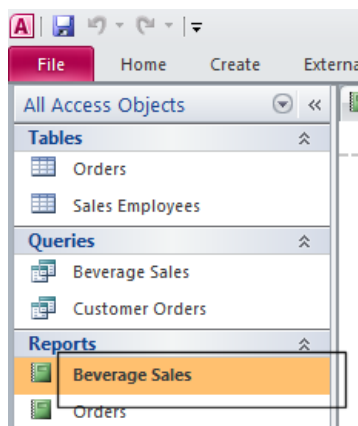
- Press the **Delete** key to delete the report. Access prompts for confirmation.
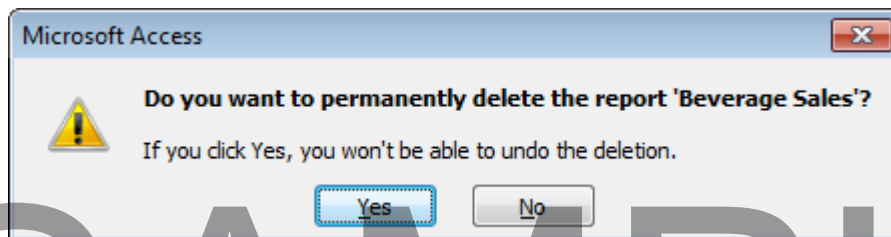
- Click on the **Yes** button. The report is deleted from the database.

Exporting

What does exporting data mean?

- When you save data you save it to disk in the same file format used by the application, in this case Microsoft Access. Exporting data means saving the data in a different format. For instance we could save our database in a spread sheet format (such as Microsoft Excel format), or as text or in XML format.

  It is important to note that you cannot use the Access **Save As** command to save the database in an alternative format such as an Excel workbook, text file or XML file. You need to export the file.

What is a spread sheet format?

- The file is actually stored as a workbook and each workbook can contain many worksheets (which contains the tables of data). A typically example is Microsoft Excel.

What is text only and CSV format?

- As the name implies, if you export a database in text only format, then only text will be saved. You will lose all formatting and other non-text information.

  A common text format is called a CSV format. This is short for Comma Separated Vales. A CSV file maintains the record and field database structure by inserting a comma after each field within the file. You could then import the CSV formatted files into a database or spread sheet and it would be able to delimit, i.e. separate, the rows and columns to correctly display the basic data. CSV files will not retain any formatting or other non-text related information.

What is a PDF file?

- The Adobe Acrobat PDF file format is useful because if you save your objects as PDF files these can be viewed by other people who may not have access to the Access program. The PDF files can also be displayed within web sites or attached to emails and send to colleges.
- The Adobe Acrobat Reader program is required to view PDF formatted files and is available as a free download from the Adobe web site.

What is an XML file?

- XML is short for 'Extensible Mark-up Language'. It is a general-purpose mark-up language that allows you to share data created by different hardware and software via the Internet.

Exporting a table as an Excel file

- Start the Access program.
- Open a database called **Exporting**.
- Select but do not open the table called **Next Weeks Courses**.
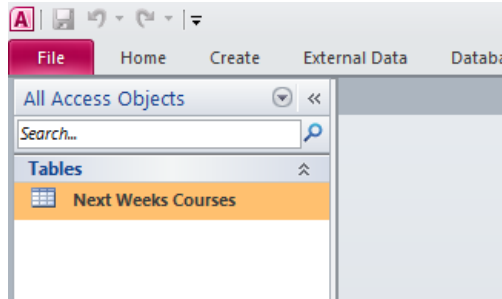
- Click on the **External Data** tab and from within the **Export** group, click on the **Excel** button.
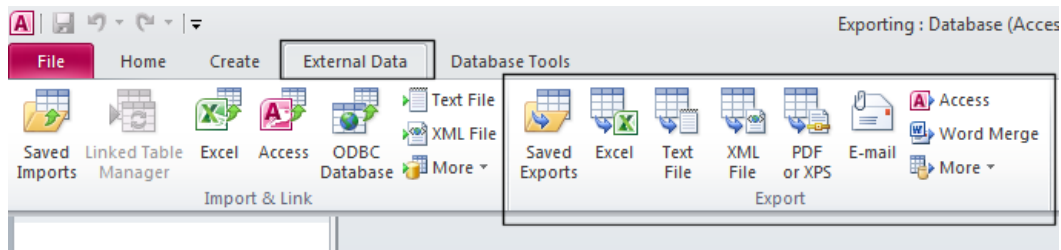
- You will see the following dialog box.
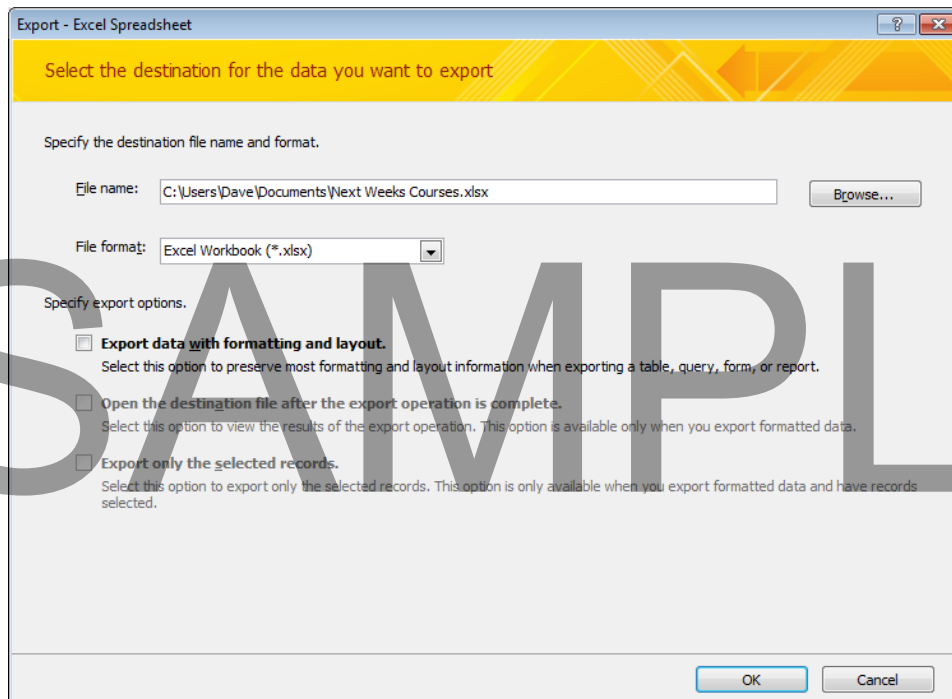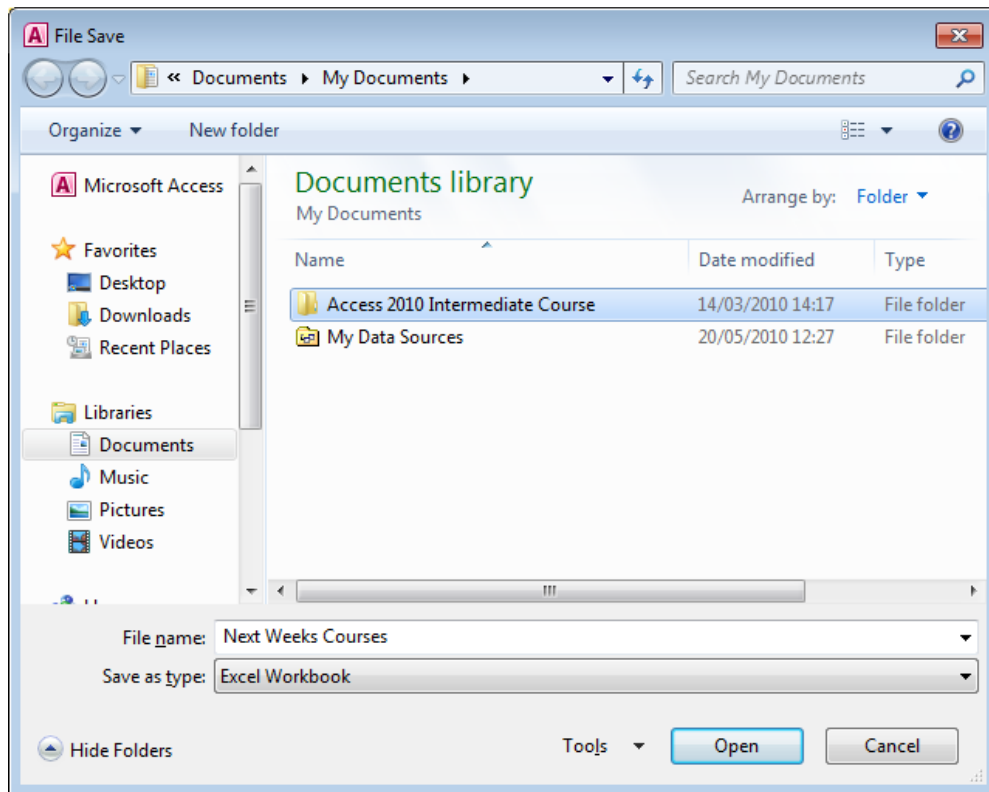
- Click on the **Browse** button.

- You should see the **Access 2010 Intermediate Course** folder displayed within the right section of the dialog box. Double click on the **Access 2010 Intermediate Course** folder to change to that folder. The dialog box will now look like this.
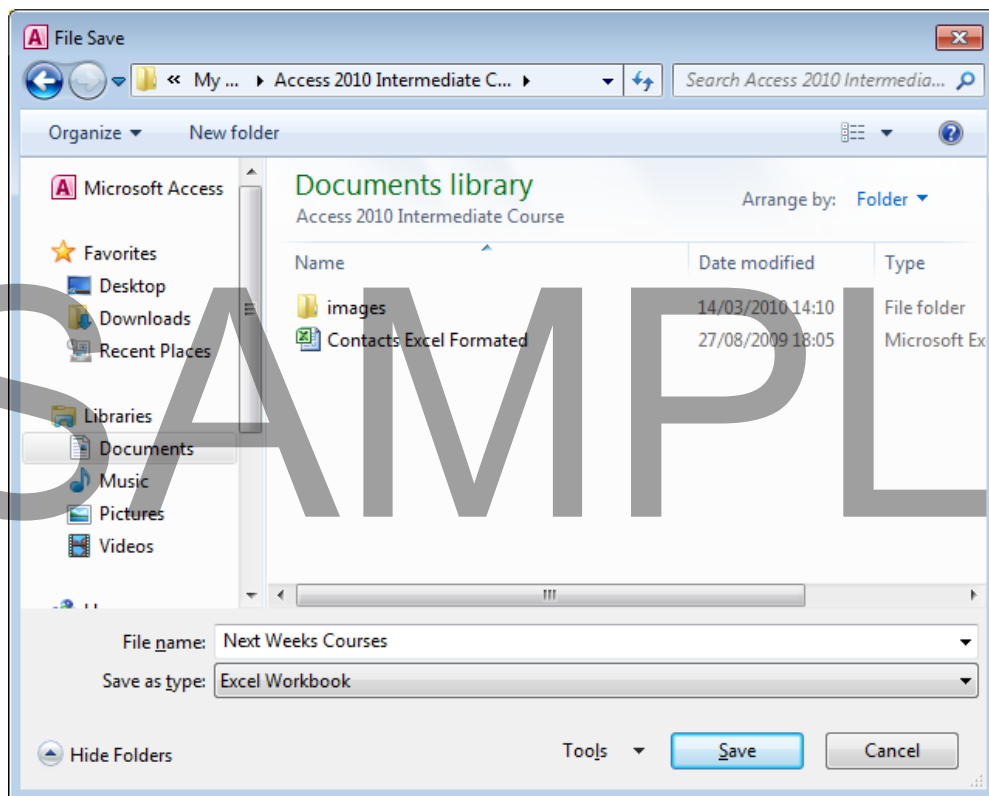
- Enter a file name such as **Excel Version Next Weeks Courses**.
- Click on the **Save** button and you will see the following dialog box displayed.
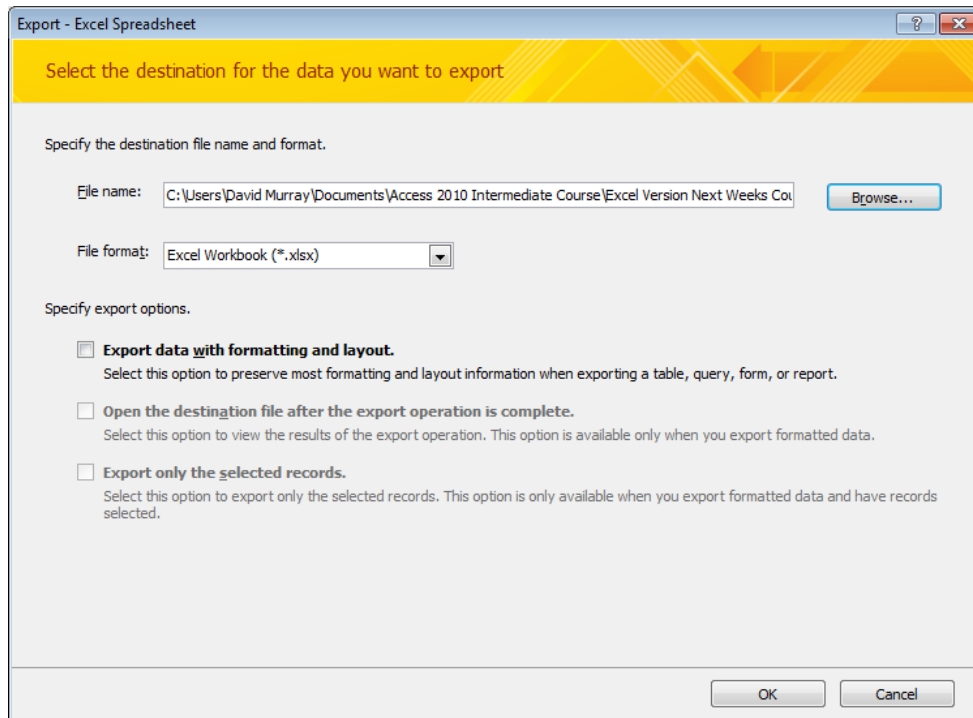
- Click on the **OK** button to save the database table in an Excel file format. You will see a final dialog box displayed, click on the **Close** button to close the dialog box.

- Don't actually do this now, but if you used the **Windows Explorer** program to view the contents of your **Access 2010 Intermediate Course** folder you would see the new Excel file listed as illustrated.

- Close the Access program.

## Exporting a table as a text file (keeping data format & layout)

- Start the Access program.
- Open a database called **Exporting**.
- Select but do not open the table called **Next Weeks Courses**.

- Click on the **External Data** tab and from within the **Export** group, click on the **Text File** button.

SAMPLE
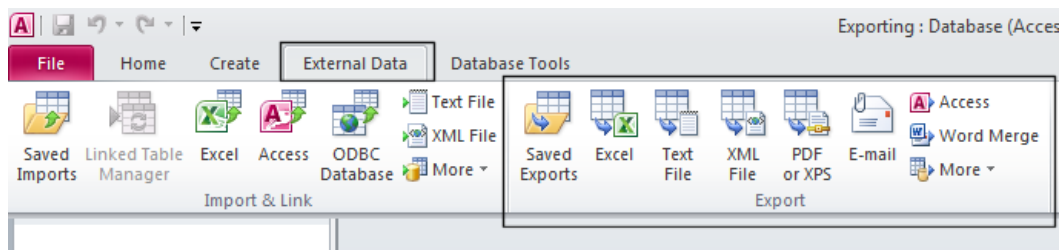
- You will see the following dialog box.
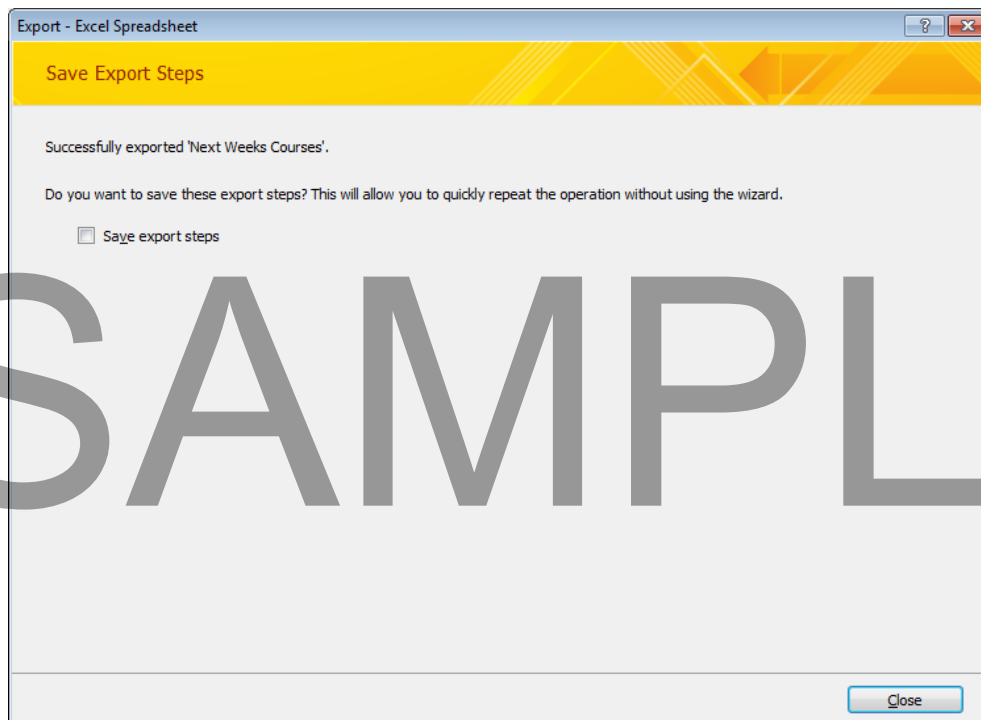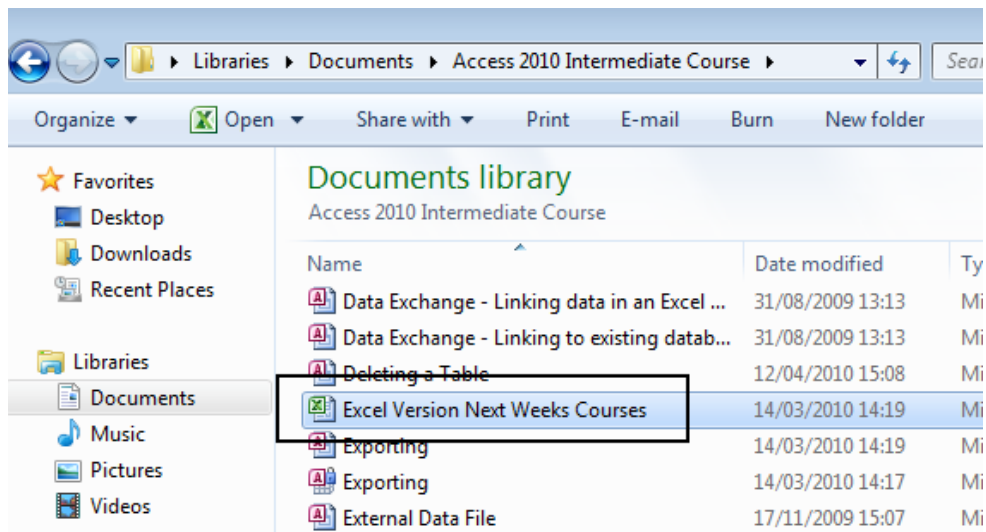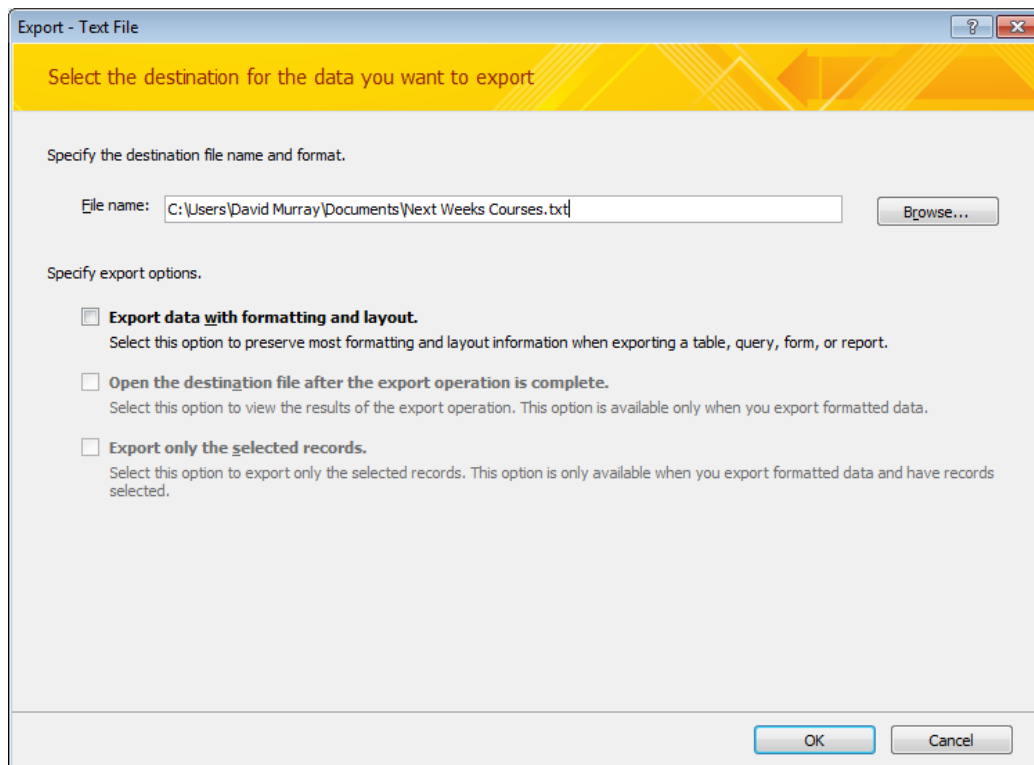

- Click on the **Browse** button.
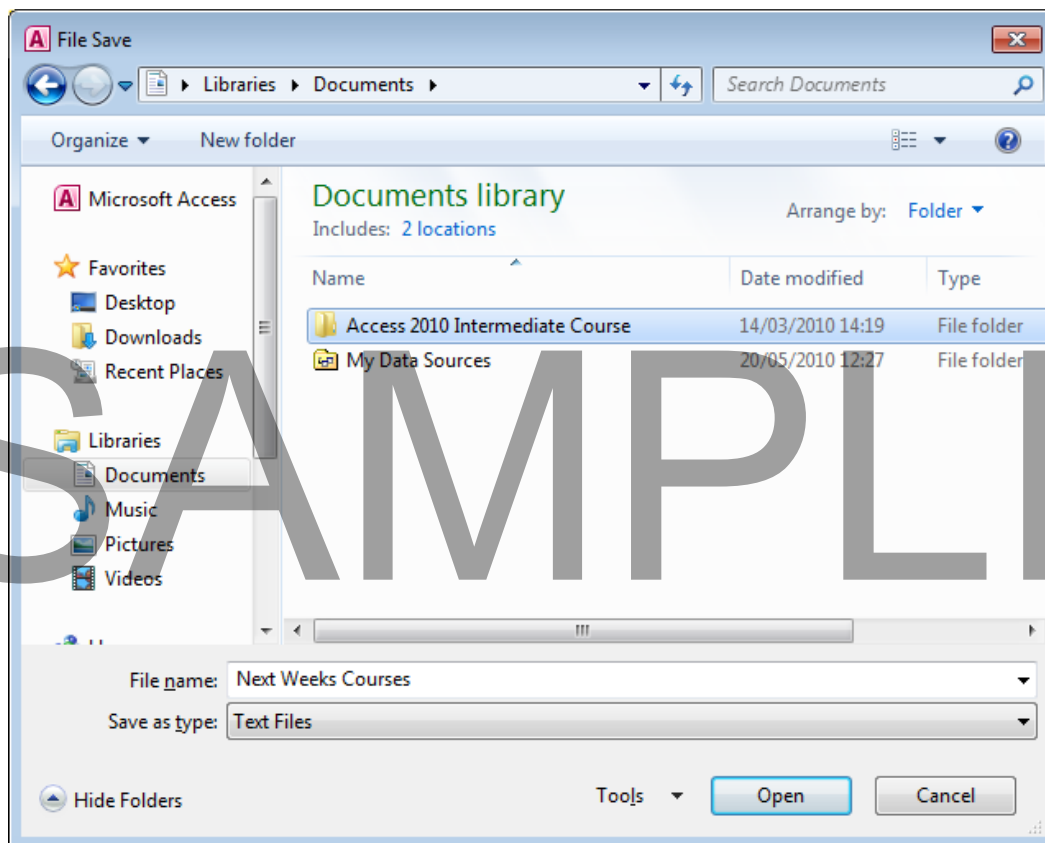
- You should see the **Access 2010 Intermediate Course** folder displayed within the right section of the dialog box. Double click on the **Access 2010 Intermediate Course** folder to change to that folder. The dialog box will now look like this.
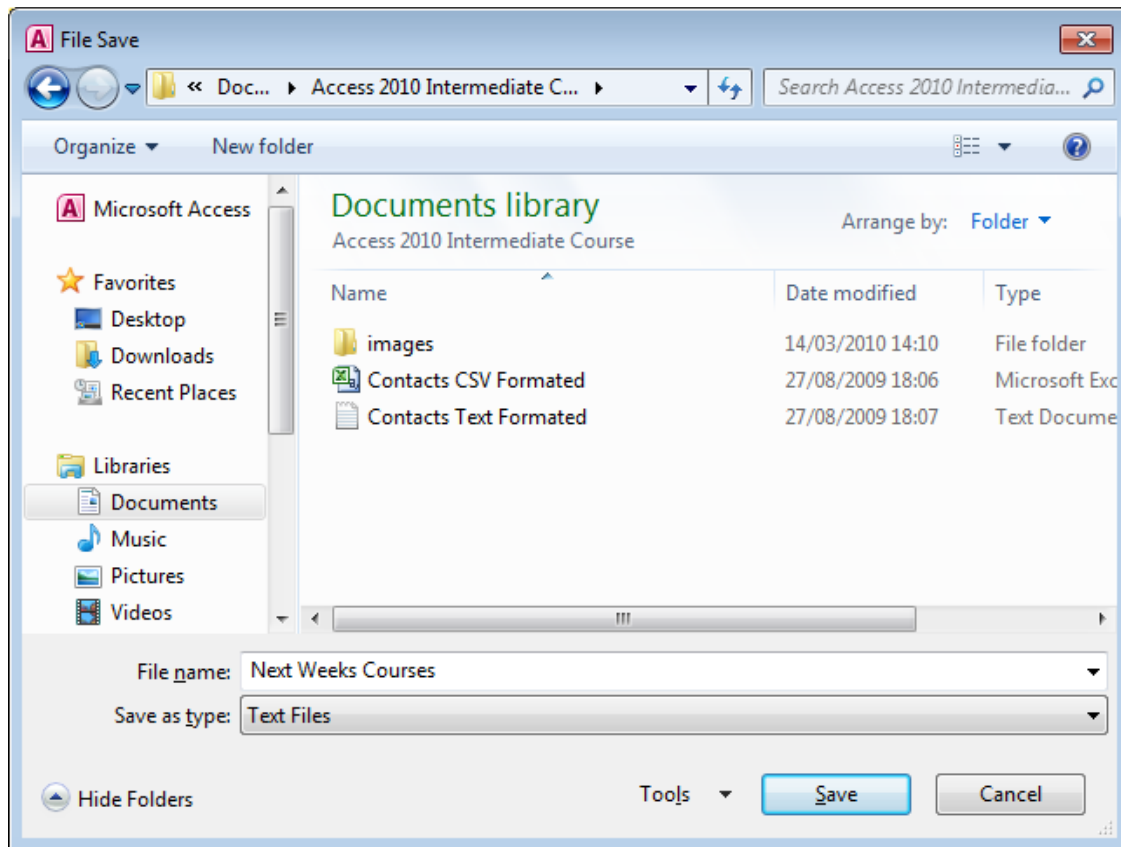
- Enter a file name such as **Text File Version Next Weeks Courses**.
- Click on the **Save** button to export the table to a text file. You will see the following dialog box.

SAMPLE
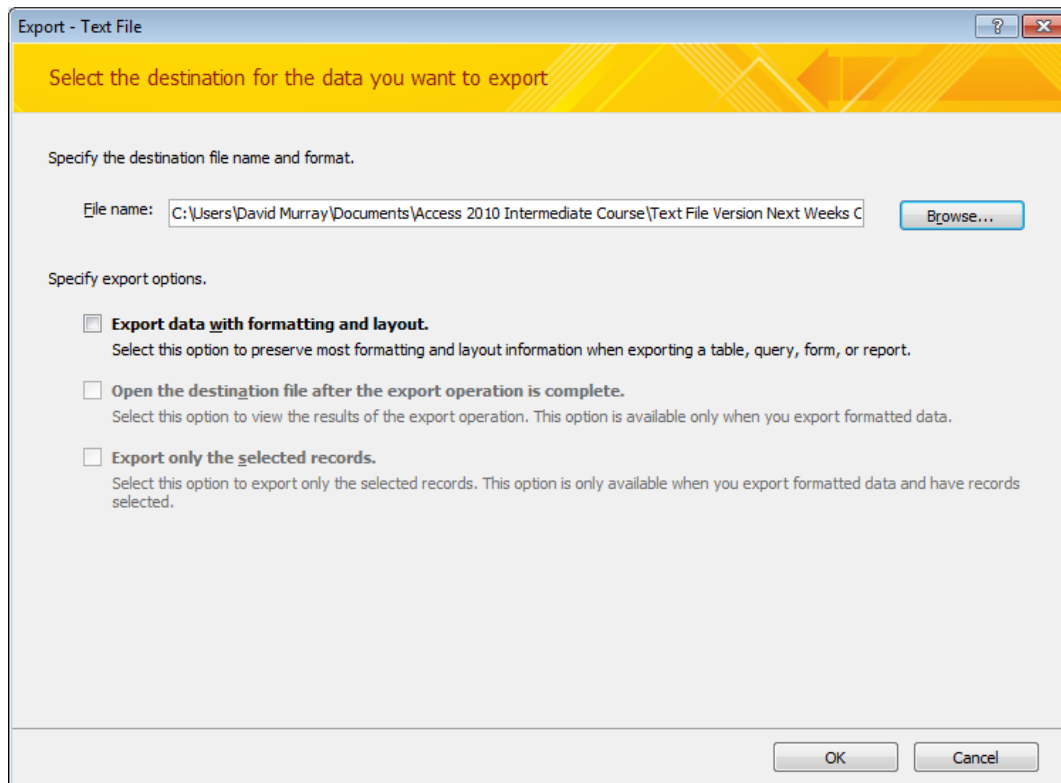
- Select the first option which will keep the column structure intact.

- Click on the **OK** button and you will see the following dialog box displayed.
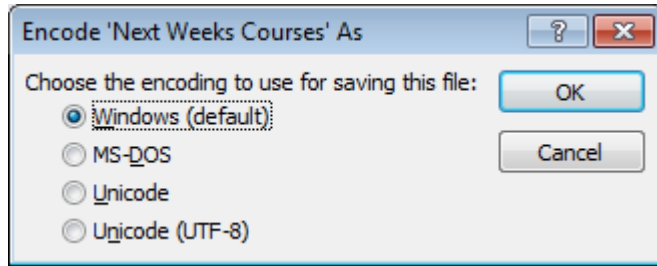
- Use the default encoding option and click on the **OK** button. The following dialog box will be displayed.
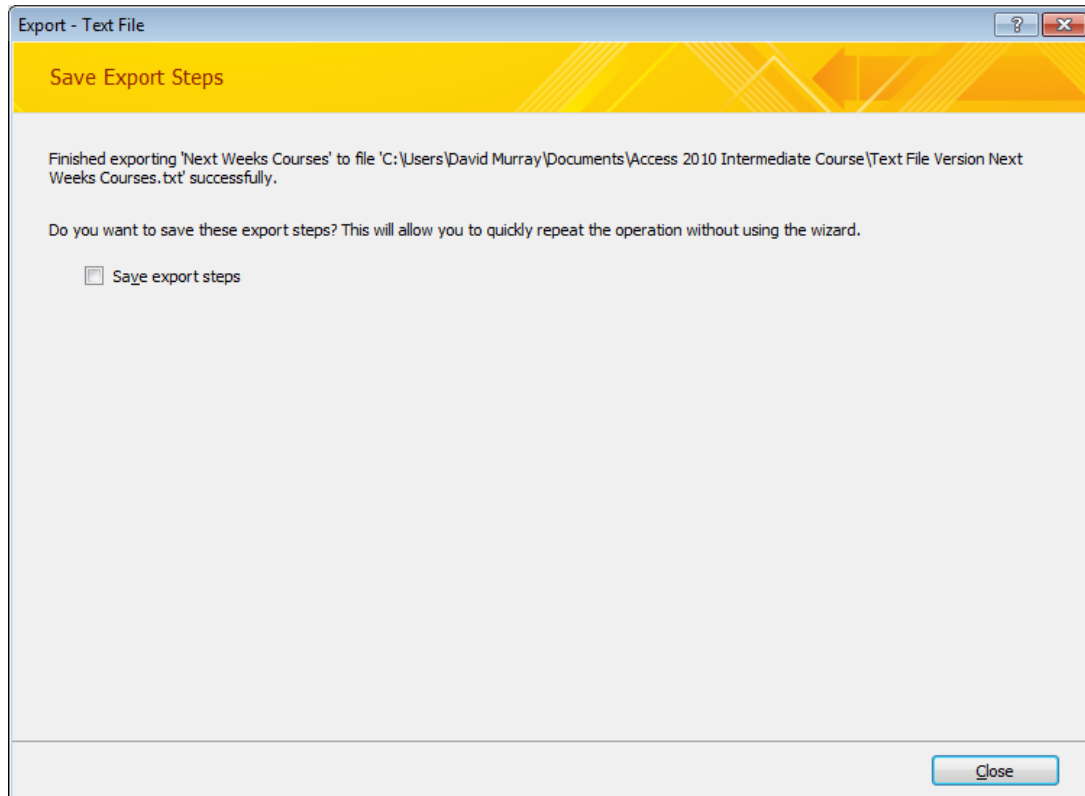
- Click on the **Close** button.

- Don't actually do this now, but if you used the **Windows Explorer** program to view the contents of your **Access 2010 Intermediate Course** folder you would see the new Excel file listed as illustrated.
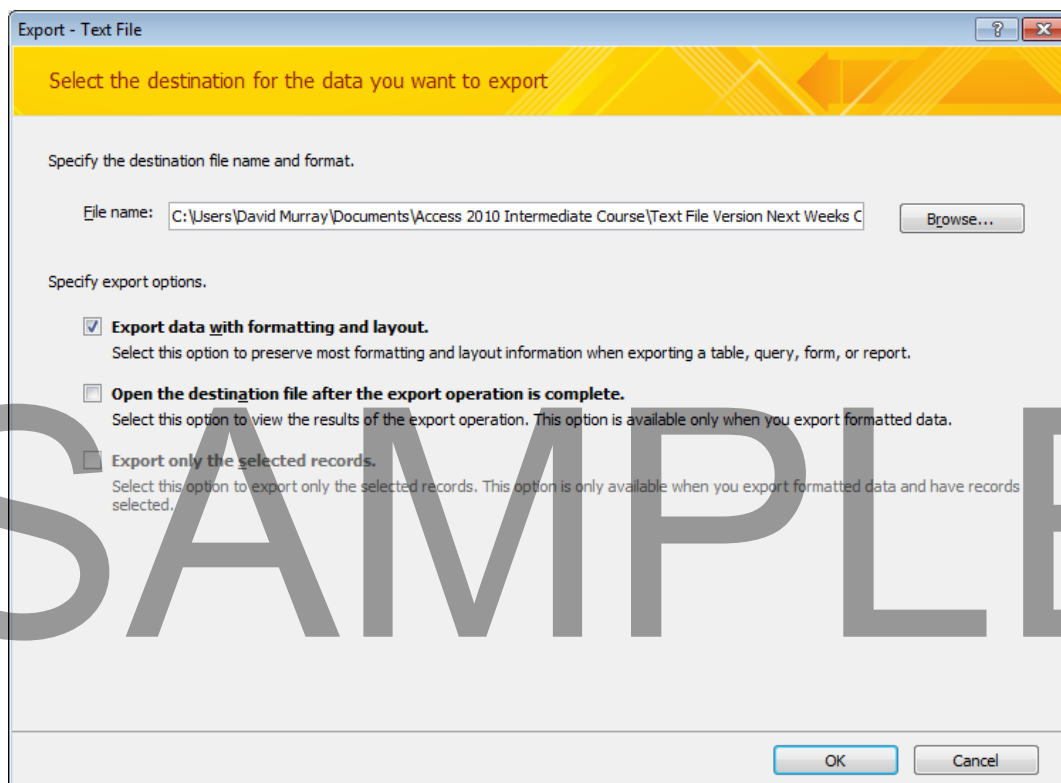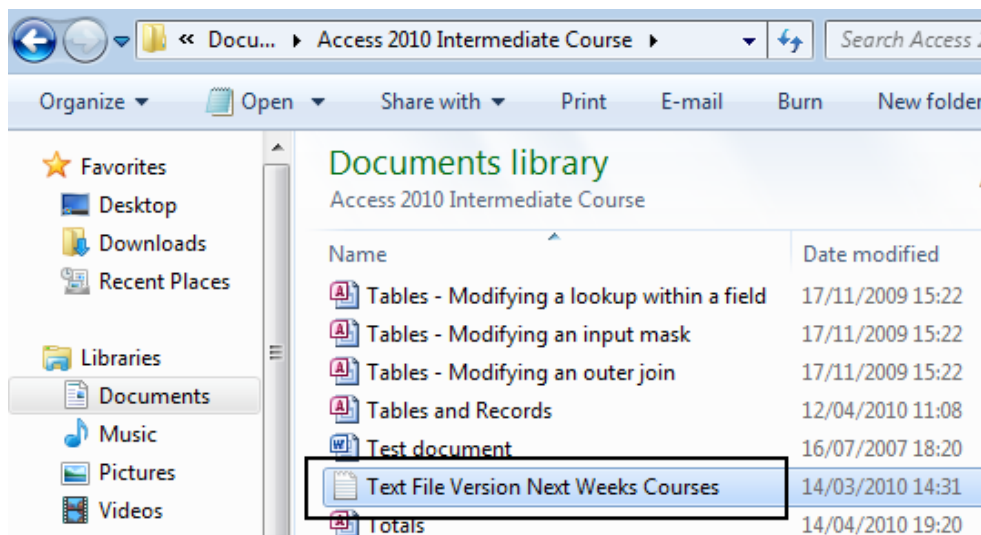
- If you were to open the file to a text only editing program, such as Notepad, the data would look like this.

NOTE: This format is NOT what many programs will expect when importing data from Access. Normally you would save to a text file in **CSV** format.

- Close the Access program.

SAMPLE

Exporting a table as a text CSV formatted file

- Start the Access program.
- Open a database called **Exporting**.
- Select but do not open the table called **Next Weeks Courses**.
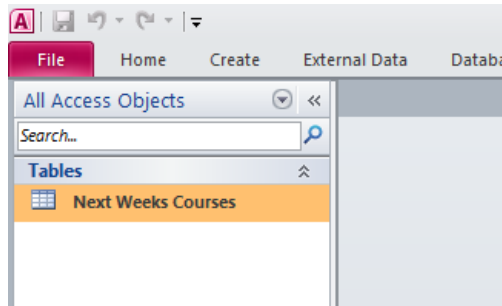
- Click on the **External Data** tab and from within the **Export** group, click on the **Text File** button.
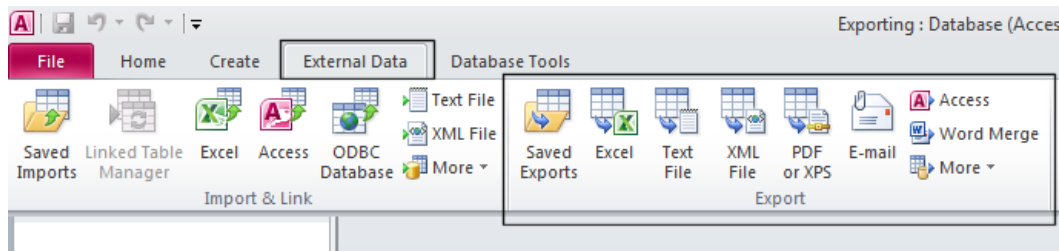

- You will see the following dialog box.
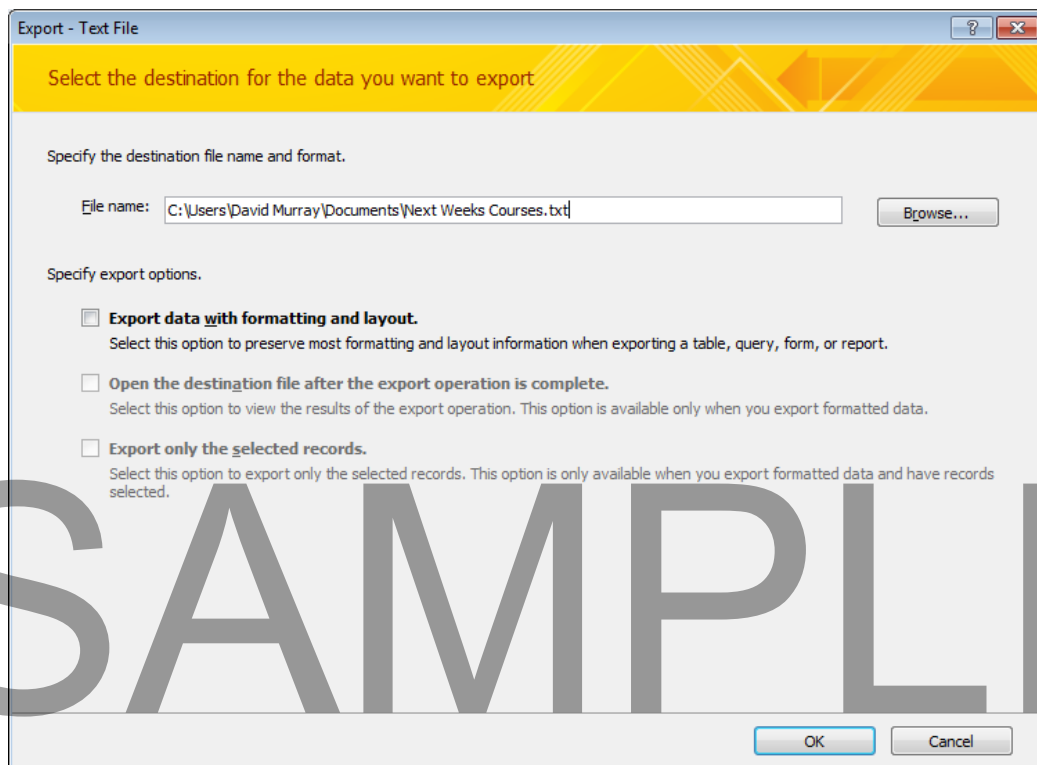
- Do not select one of the three export options, but simply click on the **OK** button to continue. You will see the following dialog box displayed. Make sure that the **Delimited** option is selected.
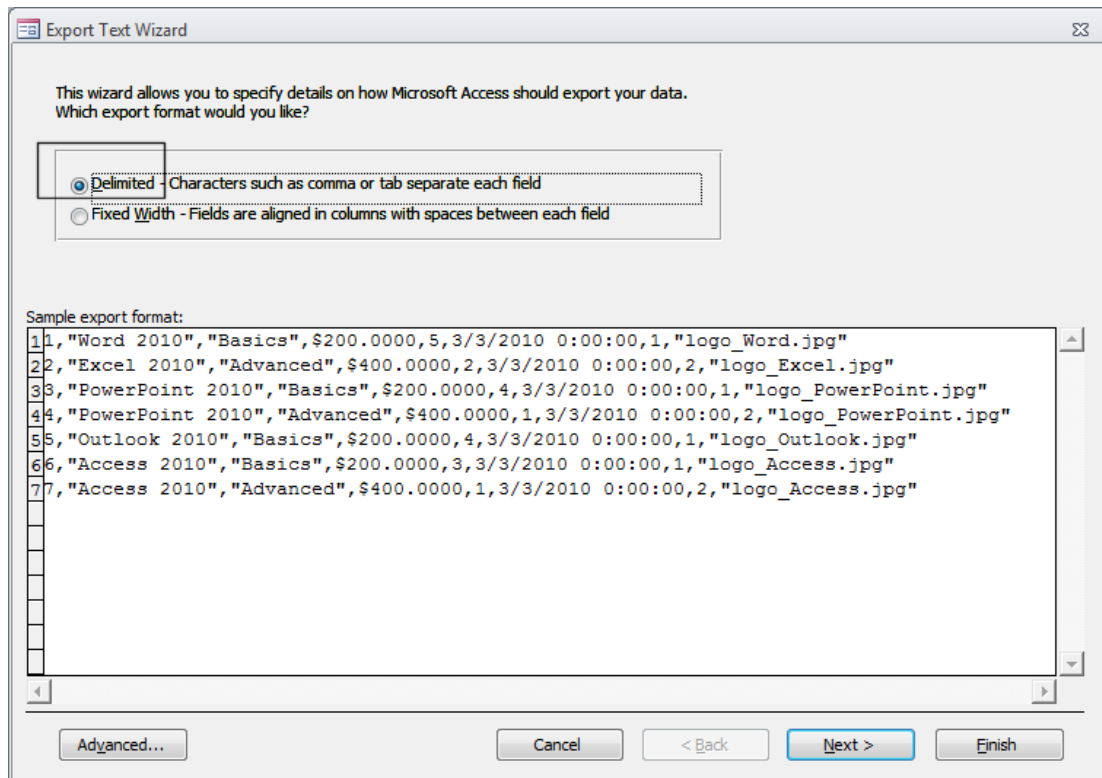
- Click on the **Next** button. You will see a dialog box allowing you to specify delimitation type. Make sure that the **Comma** option is selected.
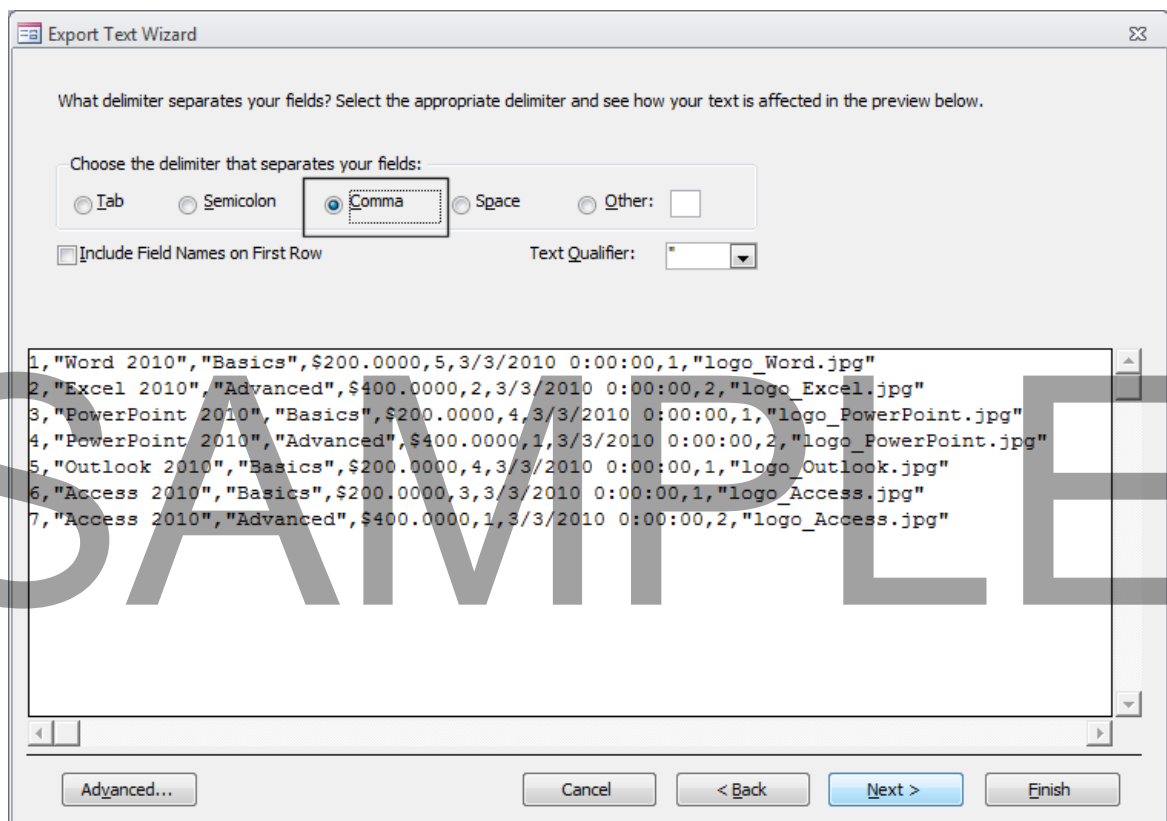
- Click on the **Next** button. The following dialog box will be displayed.
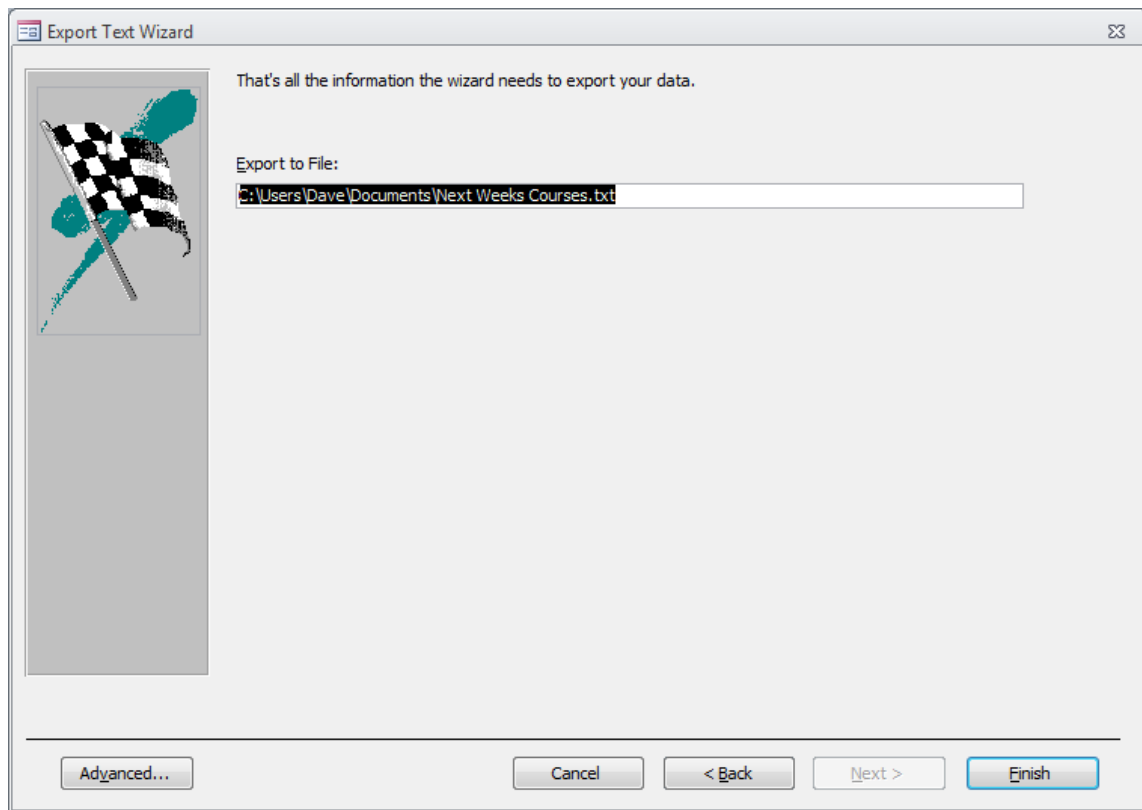
- You will notice that the default file name extension is .**TXT**.
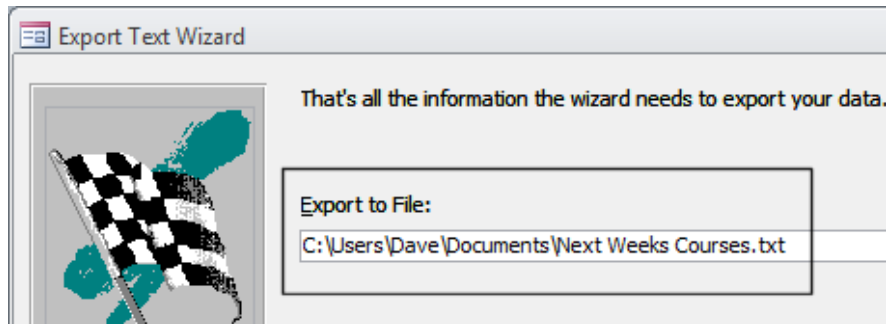
- You can change this to **CSV**.
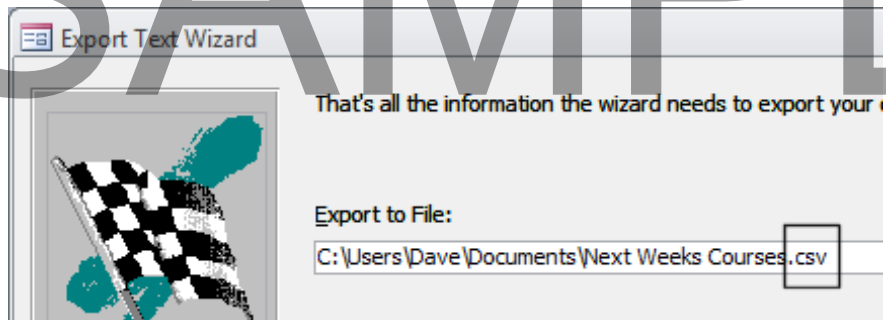
- You can also manually modify the save location, as illustrated, to save the file in the same folder as your other sample files.
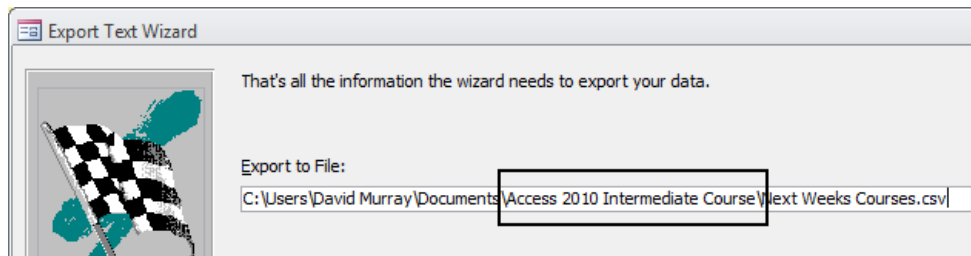
- Finally you could change the actual file name from **Next Week Courses** to **CSV Formatted Courses**. The dialog box should now look like this.
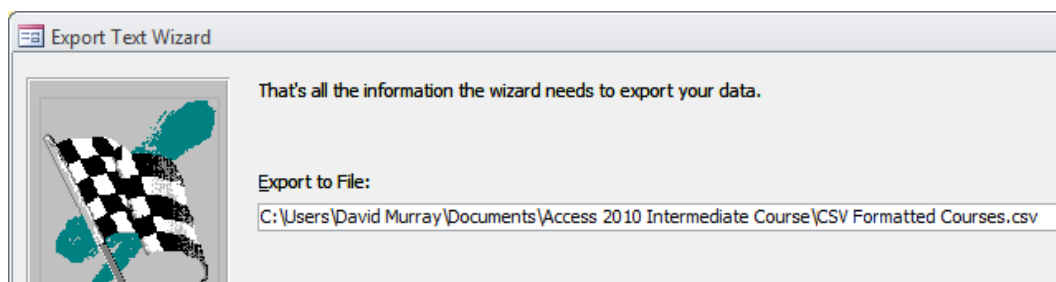
- Click on the **Finish** button and you will see the following dialog box displayed.
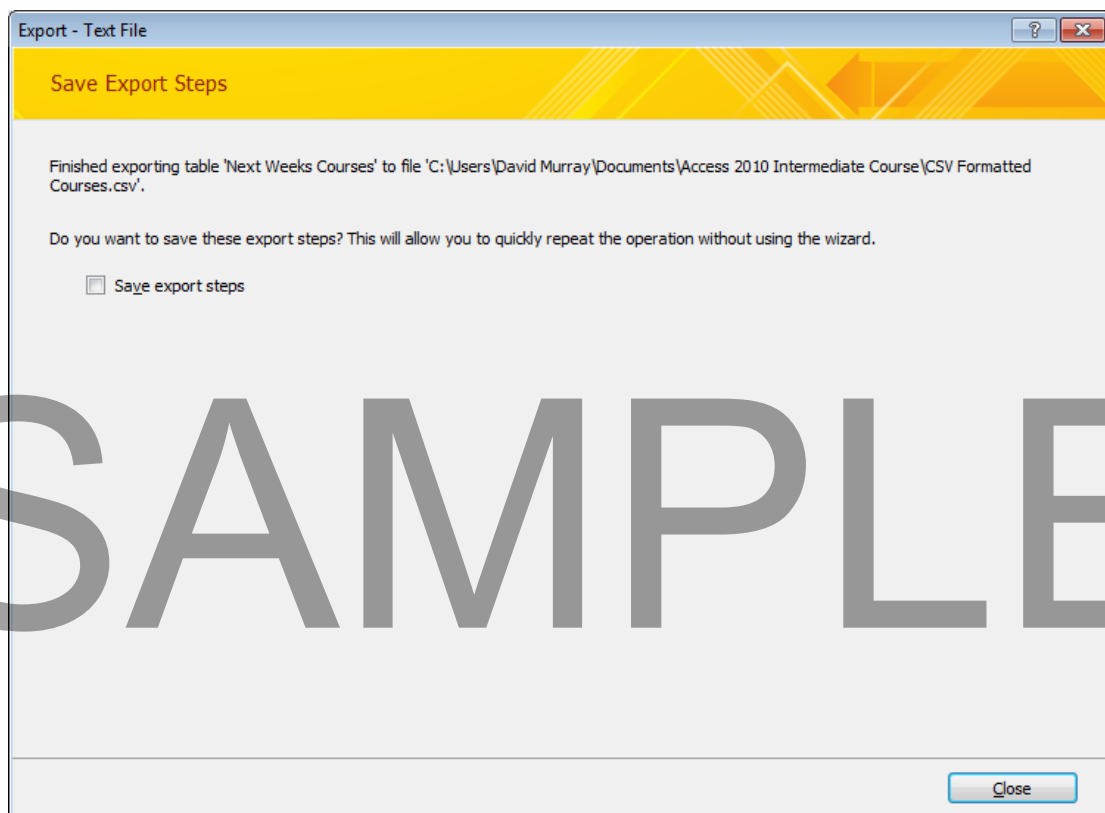
- Click on the **Close** button.

- Don't actually do this now, but if you used the **Windows Explorer** program to view the contents of your **Access 2010 Intermediate Course** folder you would see the new CSV file listed as illustrated.
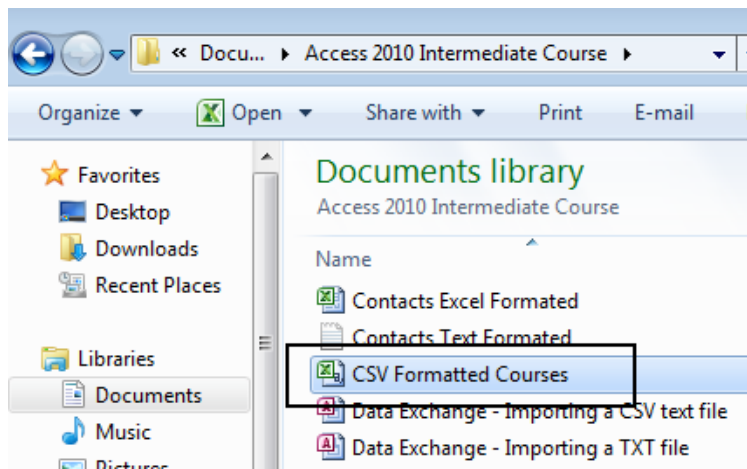
- Close the Access program.

Exporting a table as a PDF formatted file

- Start the Access program.
- Open a database called **Exporting**.
- Select but do not open the table called **Next Weeks Courses**.

- Click on the **External Data** tab and from within the **Export** group, click on the **PDF or XPS** button.
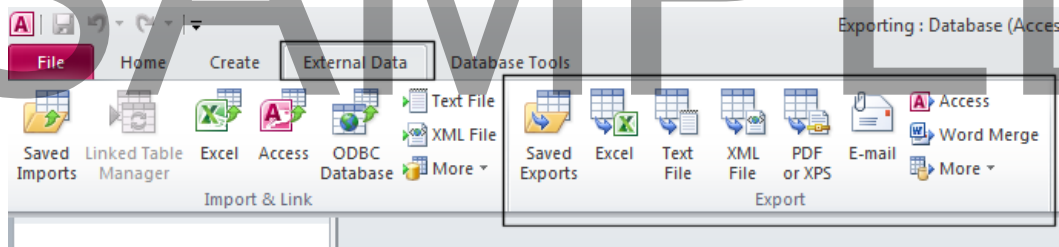
- This will display the following window.
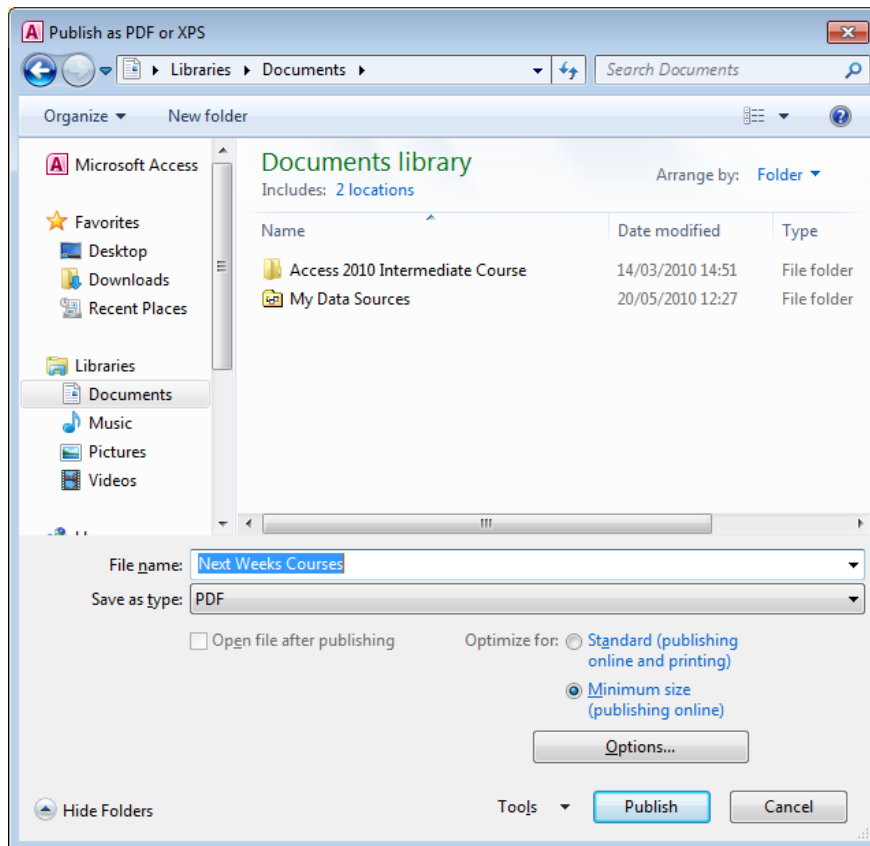
- Change to the **Access 2010 Intermediate Course** folder, by double clicking on the folder.
- In the **Save as Type** section make sure that **PDF** is selected.
- Click on the **Publish** button. If you have the Adobe PDF Reader program installed you may see the file displayed, as illustrated.

- Close the PDF Reader program.

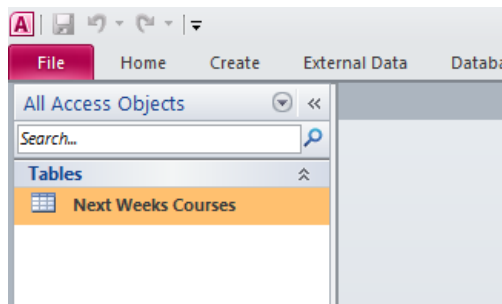- Close the **Export – PDF** window by clicking on the **Close** button.

- Don't actually do this now, but if you used the **Windows Explorer** program to view the contents of your **Access 2010 Intermediate Course** folder you would see the new Adobe PDF file listed as illustrated.
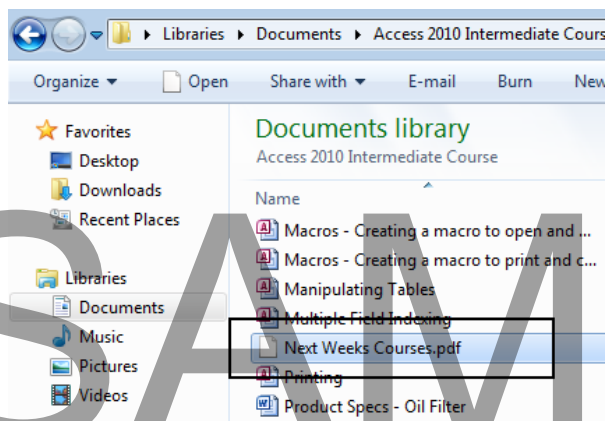

- Close the Access program.

## Exporting a table as an XML formatted file

- Start the Access program.
- Open a database called **Exporting**.

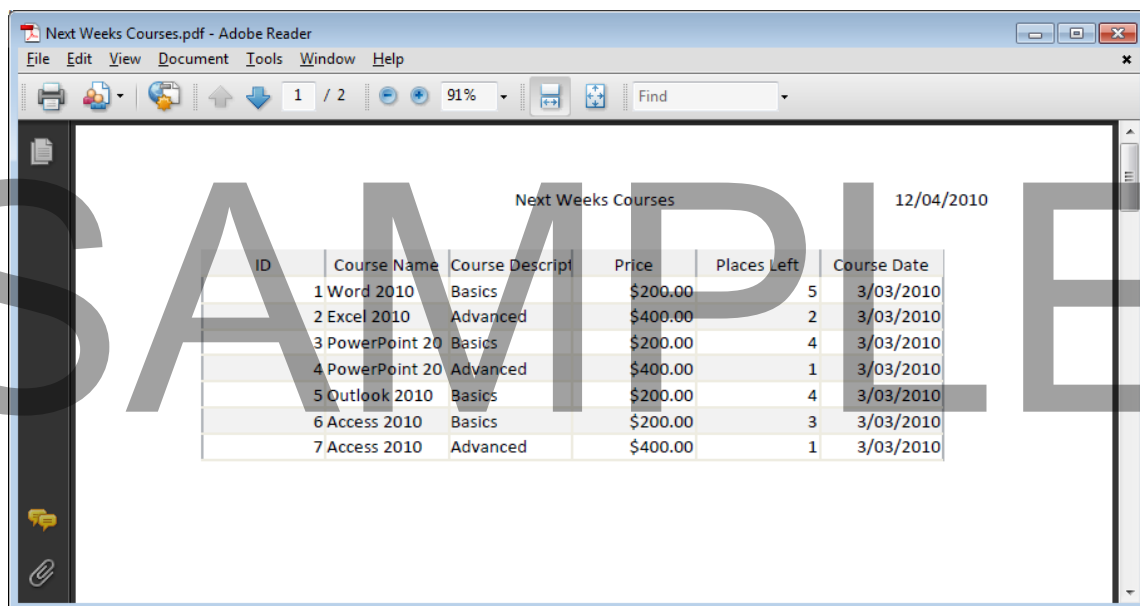- Select but do not open the table called **Next Weeks Courses**.
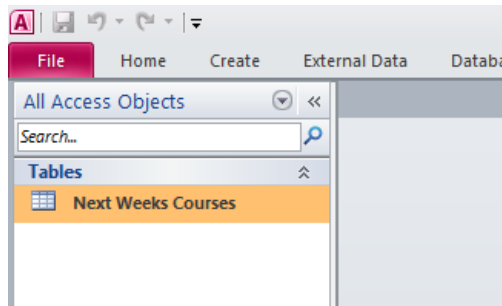
- Click on the **External Data** tab and from within the **Export** group, click on the **XML File** button.
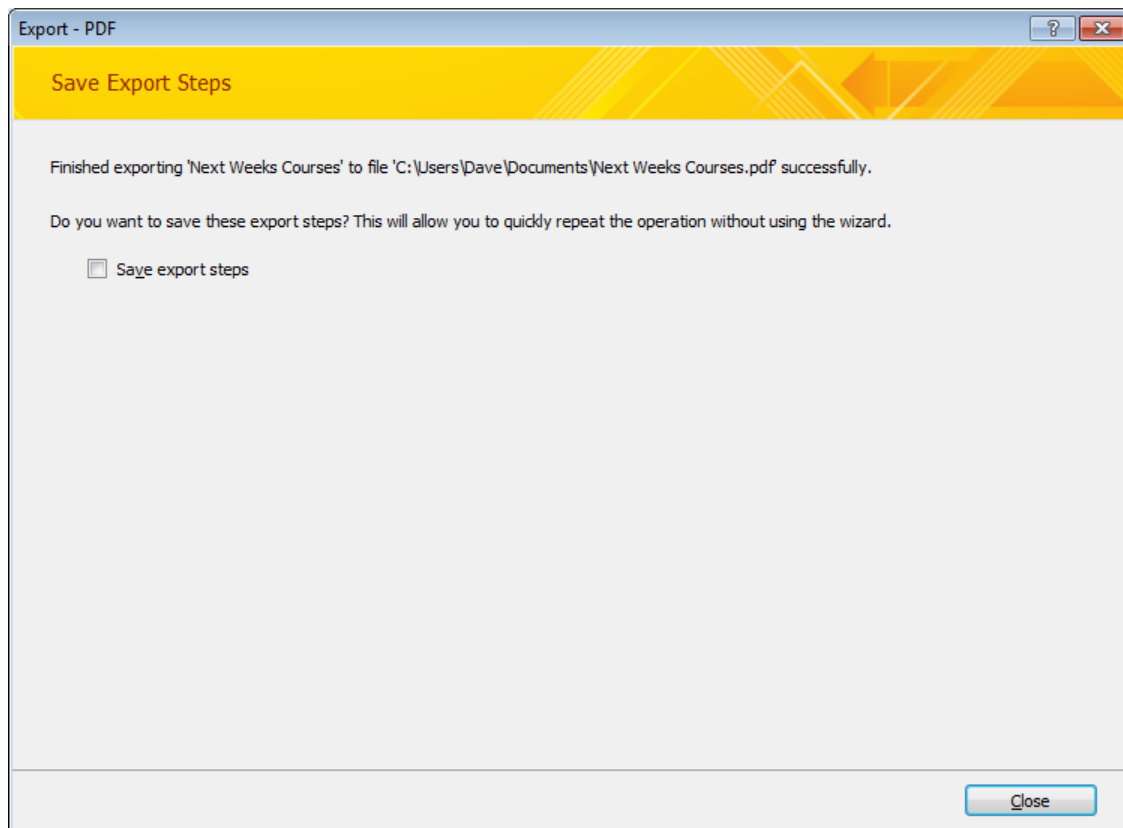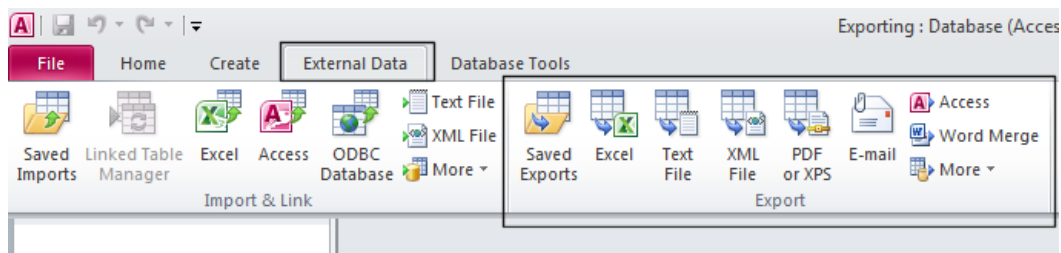
- You will see the following dialog box.
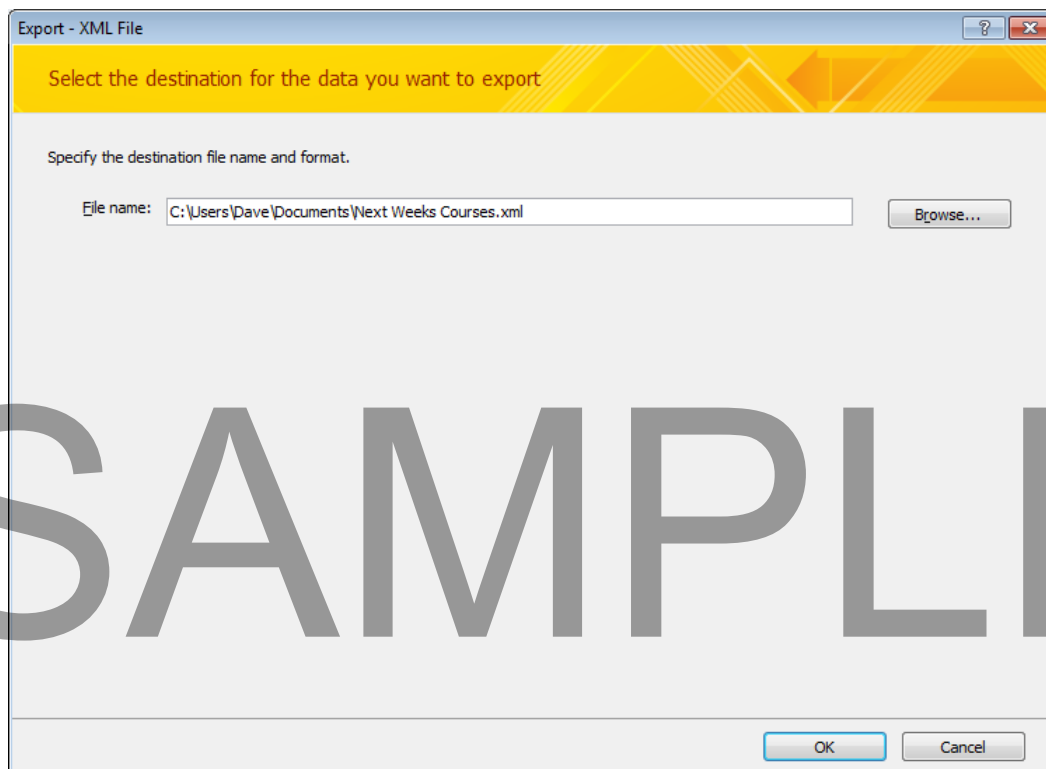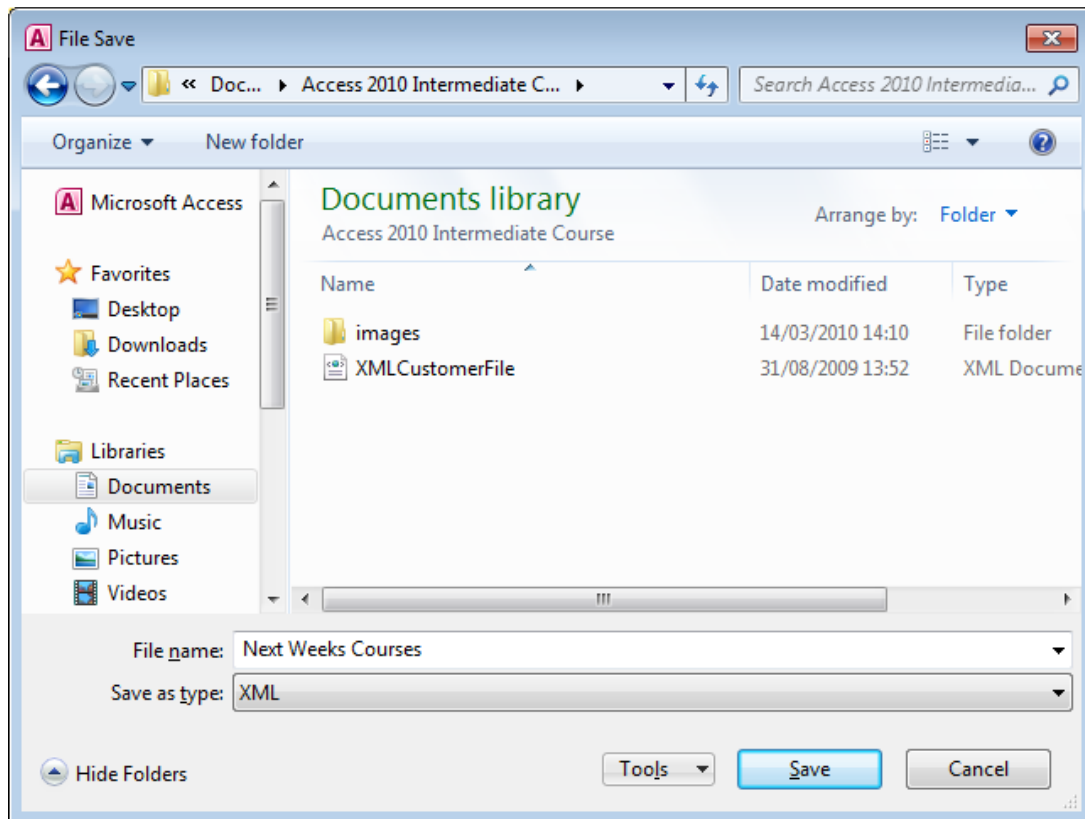
- Click on the **Browse** button.

- You should see the **Access 2010 Intermediate Course** folder displayed within the right section of the dialog box. Double click on the **Access 2010 Intermediate Course** folder to change to that folder. The dialog box will now look like this.
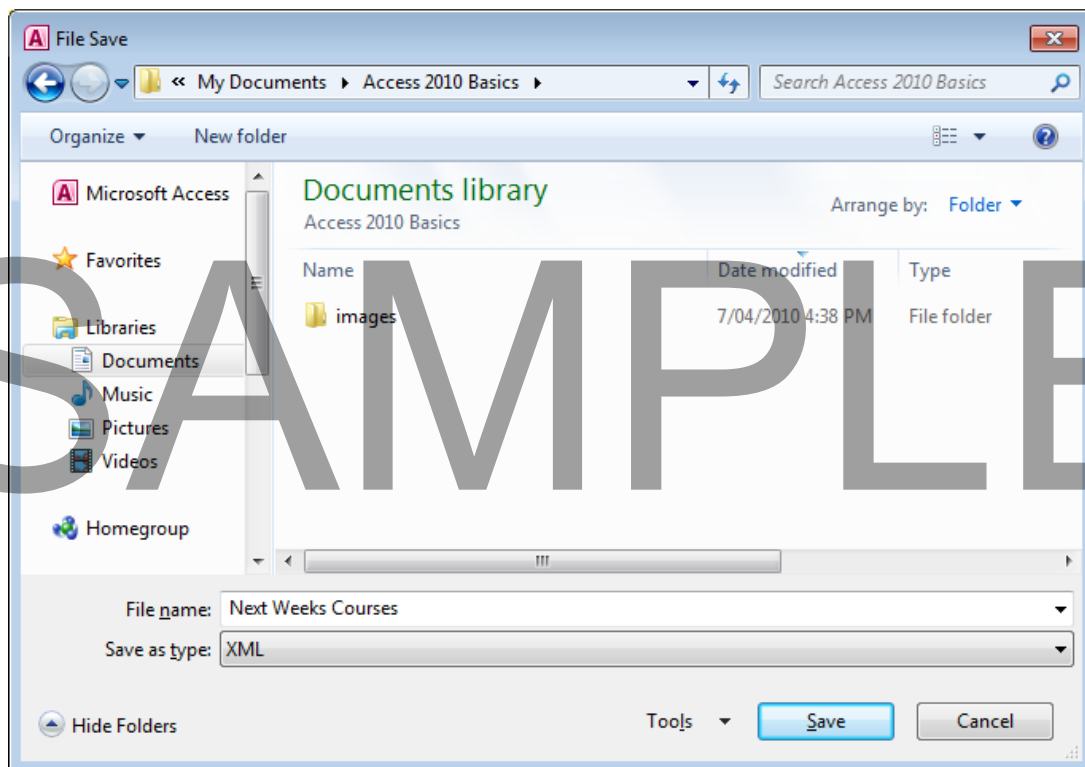
- Click on the **Save** button and you will see the following dialog box displayed.
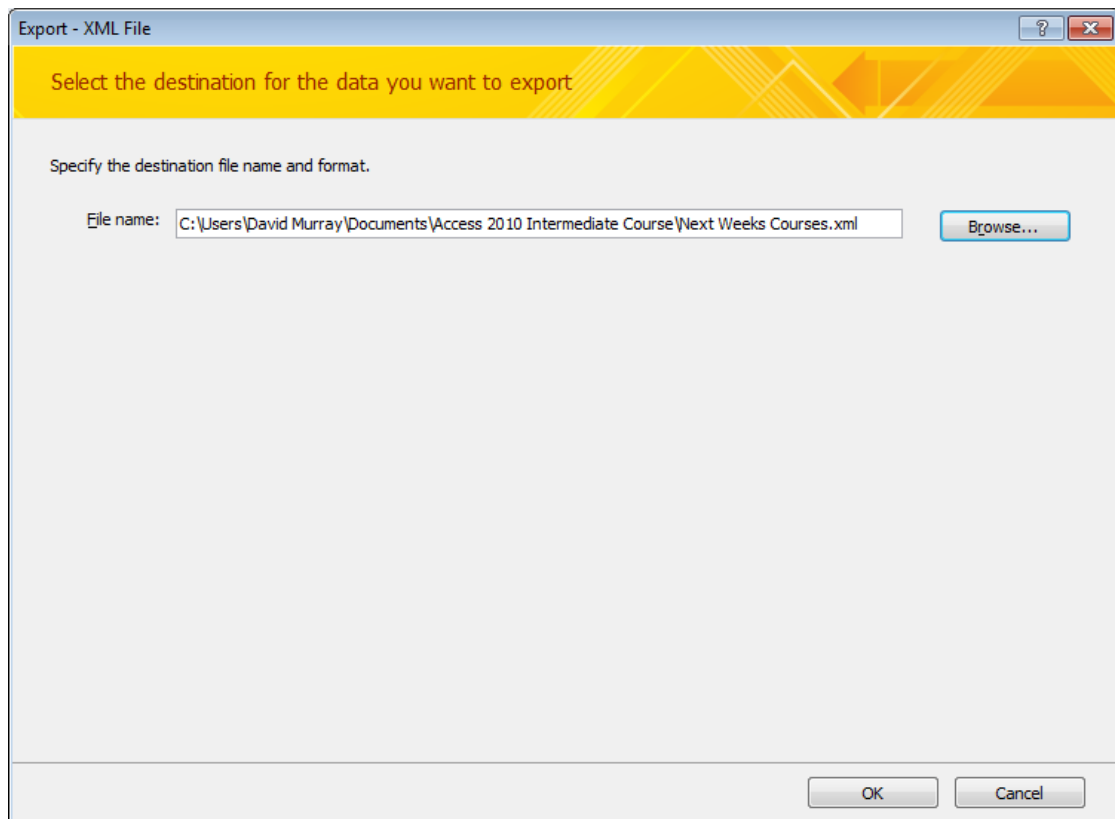
- Click on the **OK** button and you will see the following dialog box.
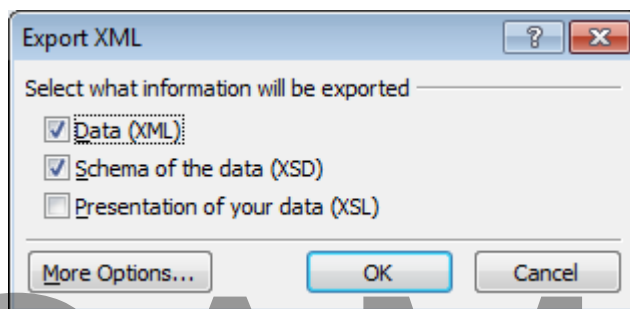
- Click on the **OK** button. You will see a final dialog box displayed, click on the **Close** button to close the dialog box.
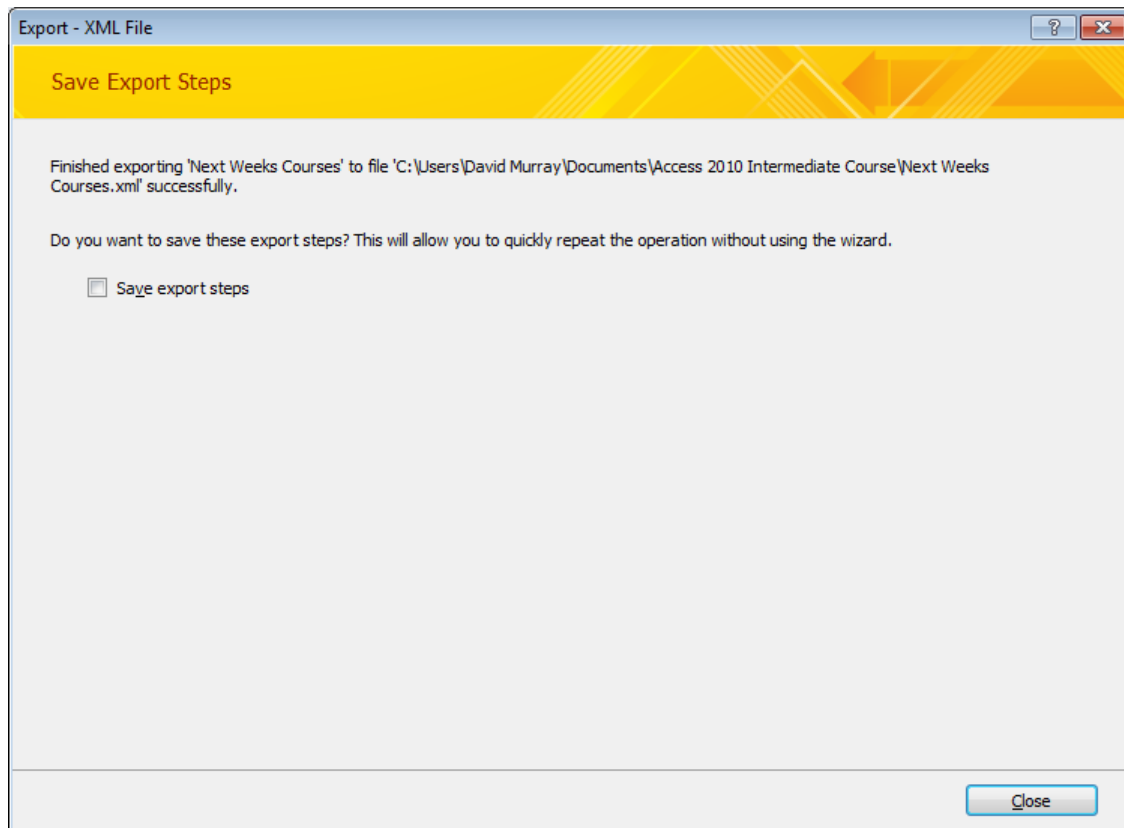
- Click on the **Close** button.

- Don't actually do this now, but if you used the **Windows Explorer** program to view the contents of your **Access 2010 Intermediate Course** folder you would see the new XML file listed as illustrated.


- Close the Access program.

Printing

Considerations before printing

- Tables, queries and reports all use a grid layout which includes columns and rows. It is therefore important to consider the number and width of columns when it comes to printing.

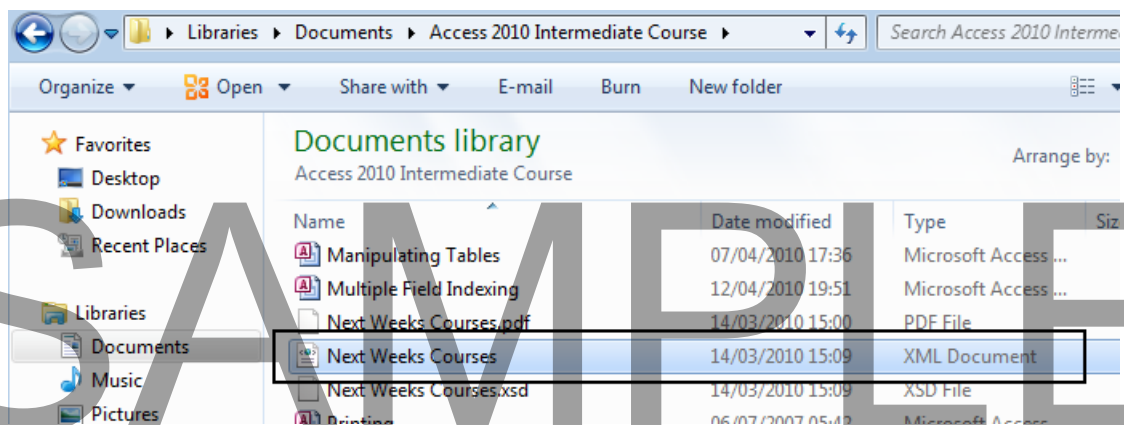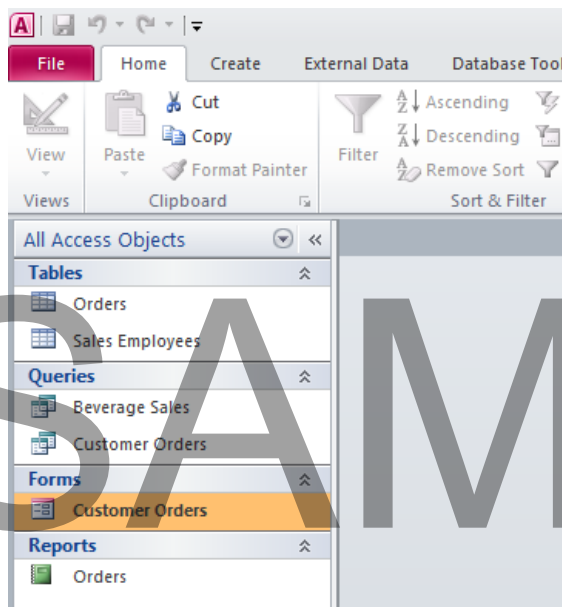- If the number of fields can be kept to a single sheet (width), either portrait or landscape, it will save on the number of pages you need to print.

- Although information can be printed directly from a table, consider using a query to extract only the fields and records that are actually required.
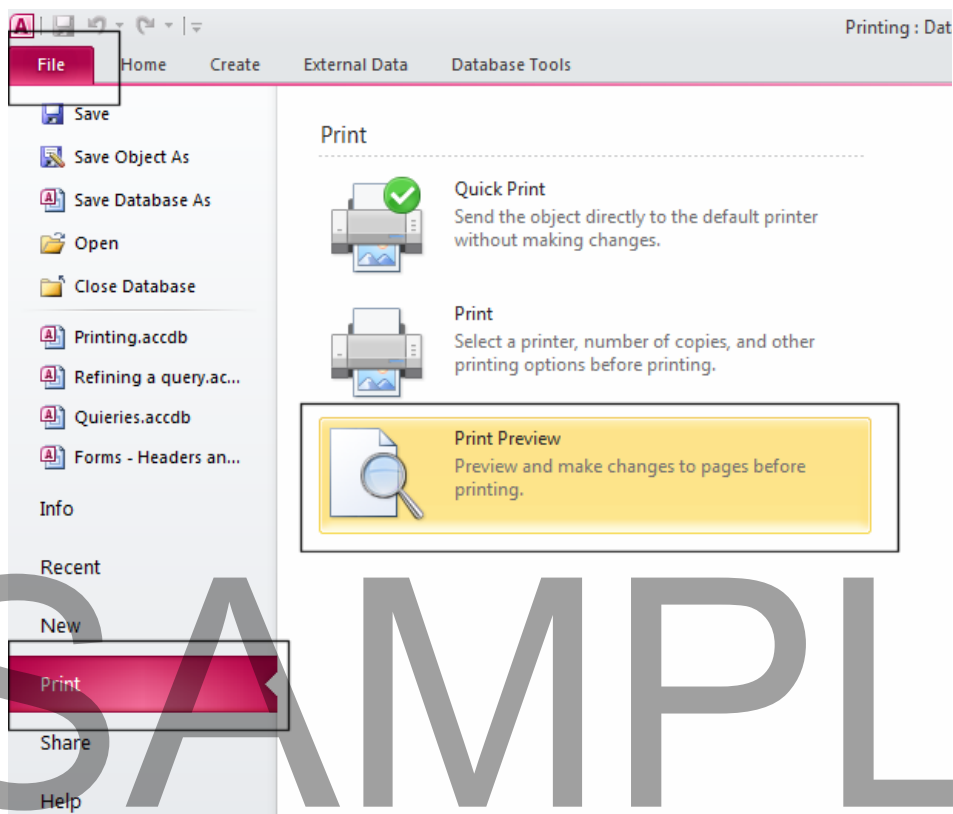
Print previewing

- Print Preview view shows how the report, table, etc. will look when printed. This includes the layout of columns (fields) on the page(s), how many pages are required to print the information, the margin sizes, titles, page numbers, etc.

- Before you can preview your print job, the object must either be selected within the Navigation Pane or open in the object window. To print only selected records from a table, the table would have to be open first to select the records.

- Open Access and open a file called **Printing**. You will see the following.

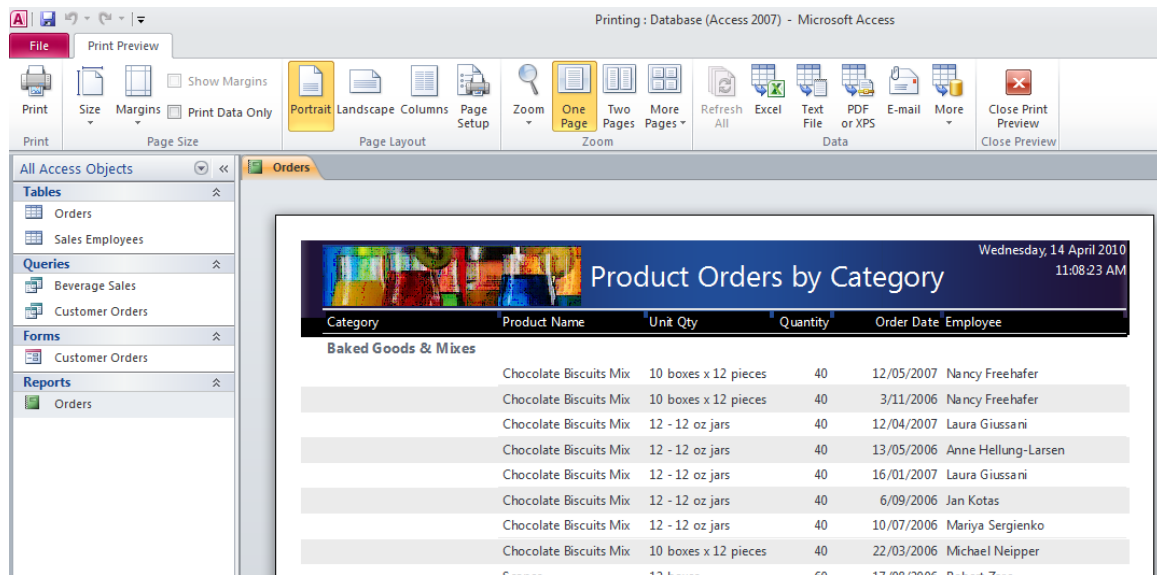- Double click on the **Orders** report to open it, as illustrated.

- To use Print Preview, click on the **File** tab and from the drop down list displayed, click on the **Print** button. Click on the **Print Preview** button.

- The screen will now look like this.

- A previously unseen **Print Preview** ribbon appears, offering you the most common tools required to adjust and modify the layout of you object to achieve the best printing results.
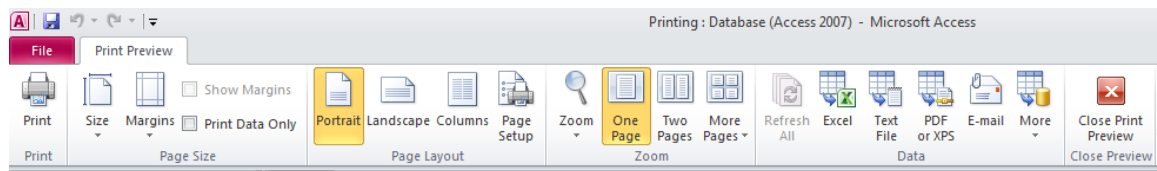
- A **Page Navigation Bar**, similar to the **Record Navigation Bar** used in tables, queries and forms can be seen at the bottom-left of the object window.
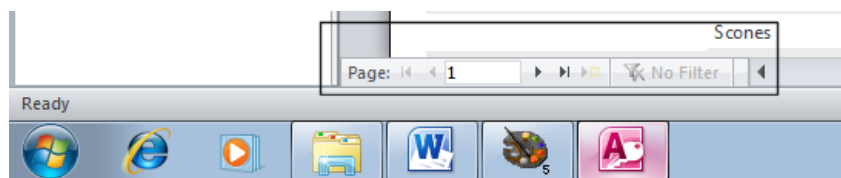
- When you first run Print Preview, the document displayed may appear unreadable. By placing the pointer over the document, the pointer changes to a magnifying glass. One click will zoom in to make the document readable and another click zooms out again.
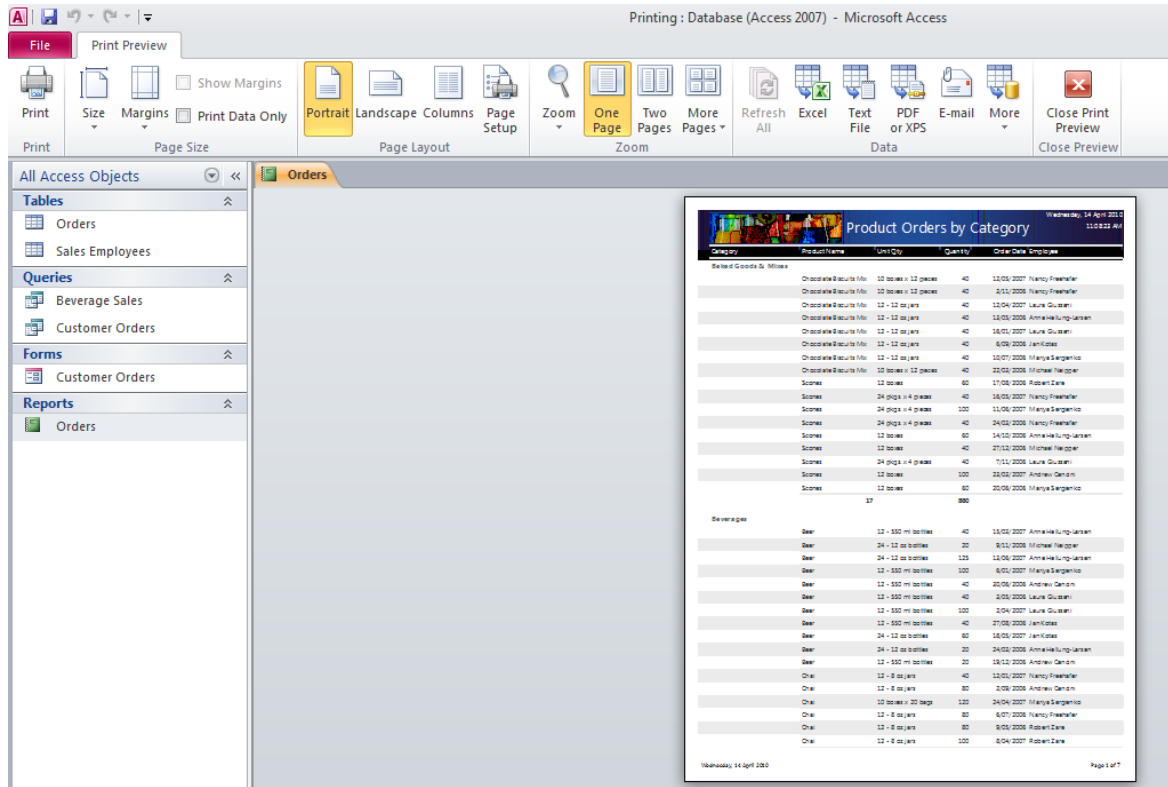
- The **Zoom** group also offers further tools to enhance the focus and view of the document when working within Print Preview.
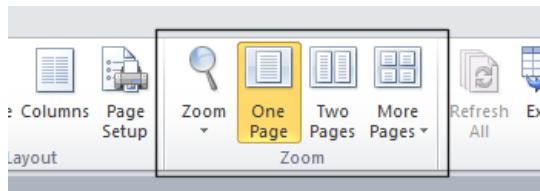
- The **Zoom** button offers zoom pre-sets in percentages and the three pages per view options offer the chance to preview multiple pages at once. This is useful when you are more interested in the layout than the actual data content.

SAMPLE
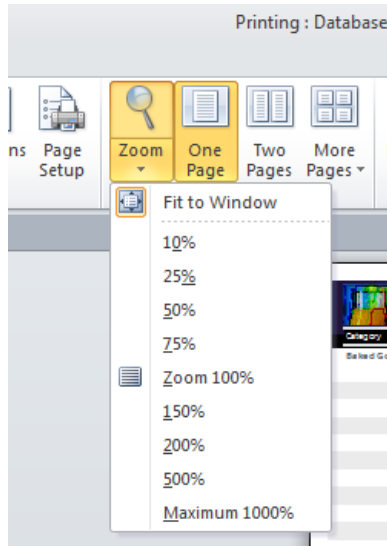
- In the **Page Layout** group the buttons control page size and page orientation, as well as margin sizes.
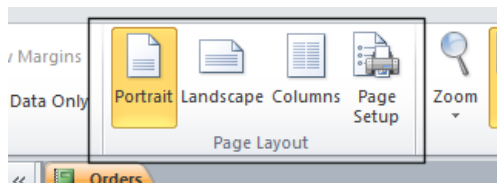
- Clicking on the **Page Size** button displays a dialog box listing common International pages sizes.
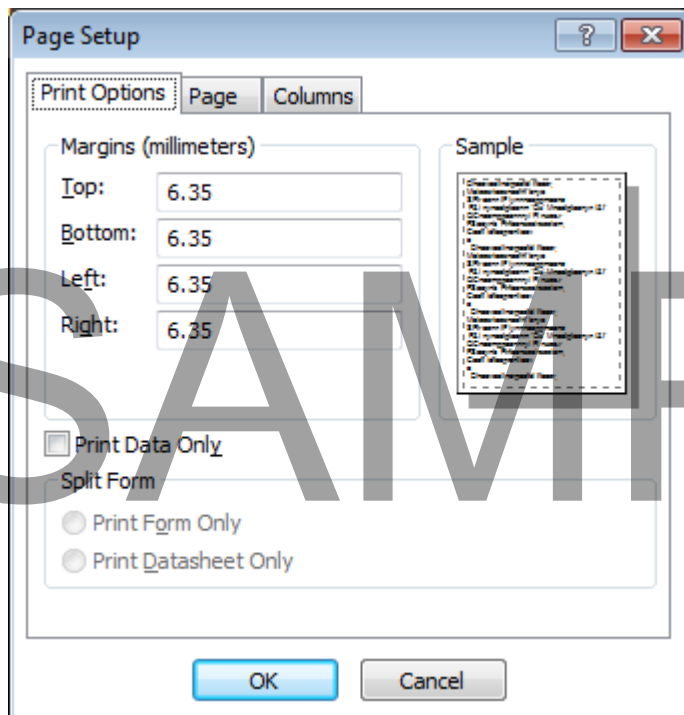
- By default, Access previews pages in portrait orientation. If you are unsure which orientation you are viewing, look at the **Layout** group in the ribbon. Whichever of the two orientation buttons is active, i.e. brightly shaded, indicates the current page orientation.

- When the **Portrait** button is selected and active, the page orientation is Portrait

- The page will look like this.

- When the **Landscape** button is selected and active. The page orientation is Landscape. The screen will look like this.

- Close the Access program and save any changes you may have made.

Which orientation, portrait or landscape?

- When printing portrait pages, the advantage, assuming the report is only one page wide, is that more records can be printed per page, resulting in less pages being printed.

    Landscape orientation on the other hand is useful when the table, report, etc. has more fields (columns) than a portrait page can accommodate.

    NOTE: When columns overflow the first page, a second page is used, in effect creating a two page wide printout. If those who the printouts are intended for are to make good use of the printouts, reports, etc., it is recommended that the printouts be kept to a manageable size.

Adjusting layout in Print Preview

- Start the Access program.
- Open the database called **Printing**.
- Double click on **Orders** in the Navigation Pane to open the **Orders** table.
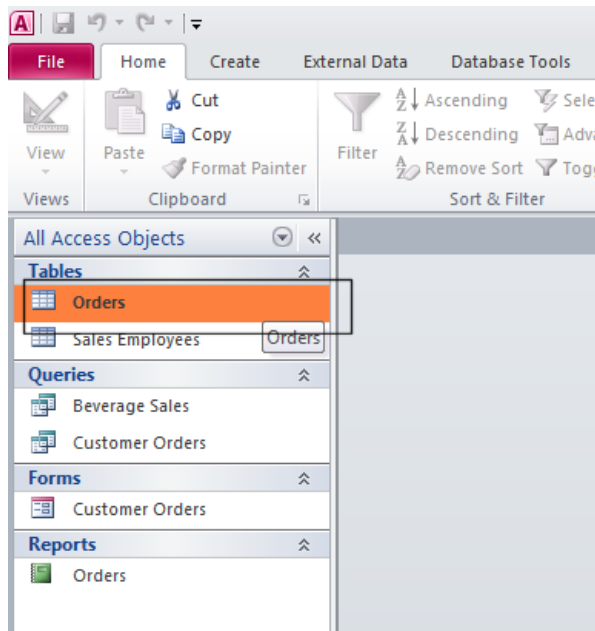
- Click on the File tab and then click on the Print button. Click on the **Print Preview** button.
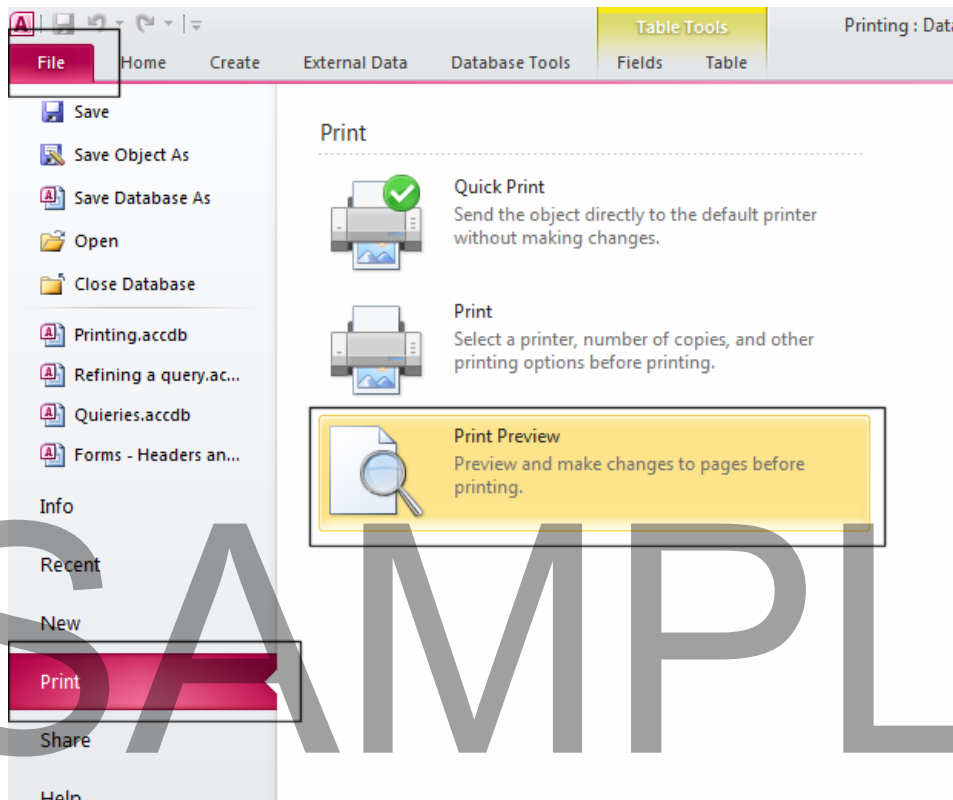
- The displayed is illustrated below.
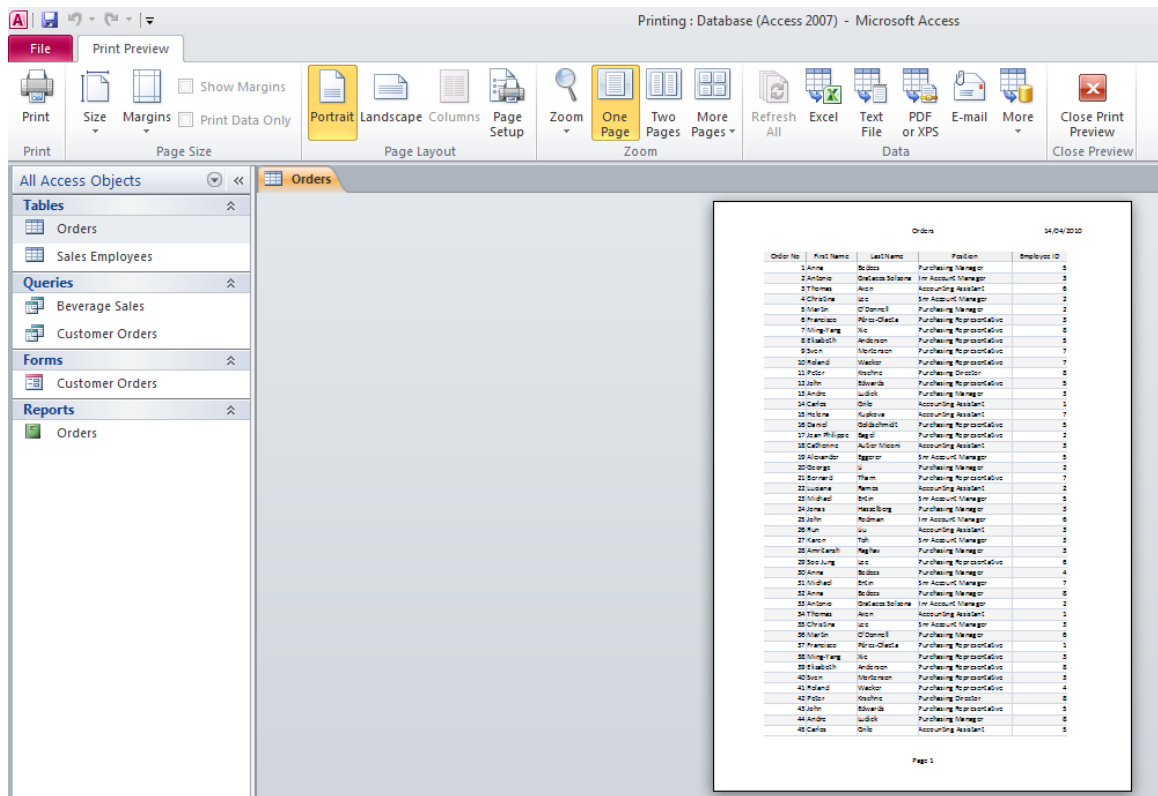
- The **Page Navigation** Bar is displayed below the table preview.

- Click on the right arrowed button once.

Make a note of the fields in **page 2** and then click on the right arrowed button again and note which fields are in **page 3**.

Currently, a print of this table would be 3 pages wide, multiplied by the number of pages require to print all or selected records.

- Click on the **Landscape** button.
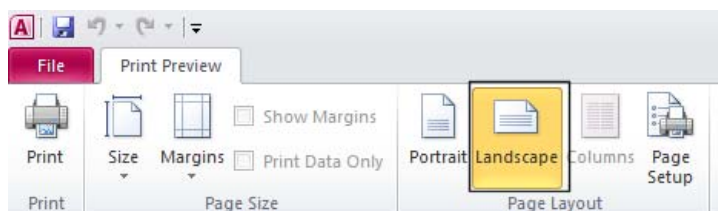
- In Landscape orientation, the printout only requires two pages (width), again multiplied by the number of pages require to print all or selected records.

  NOTE: You use the same page orientation techniques for tables, forms, query output and reports.

Setting margins

- Next, click on the **Margins** button within the Ribbon.
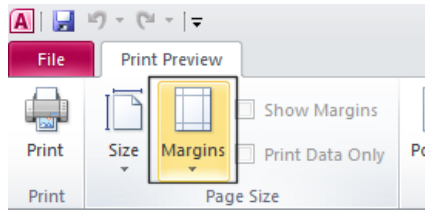
- This will display some pre-set options.

- Select the **Narrow** option from the list. More records are visible in the preview and this could result in fewer pages being printed.

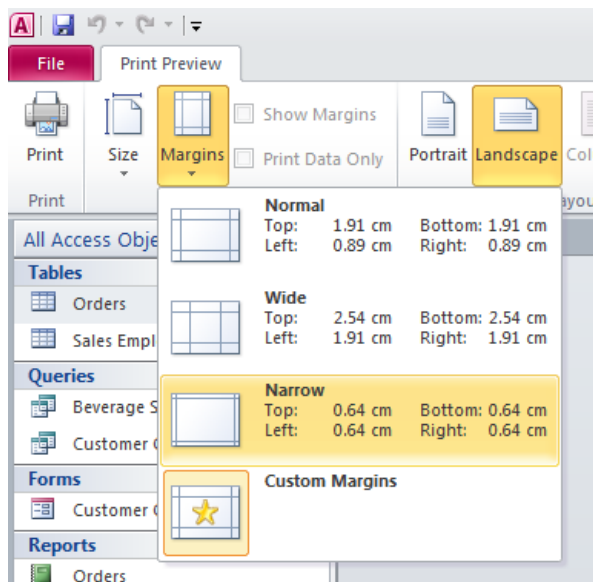| Order No	First Name	Last Name	Position	Employee ID	Category	Product Name	Unit Qty
37	Francisco	Pérez-Olaeta	Purchasing Representative	1	Candy	Chocolate	12 - 1 lb pkgs.
38	Ming-Yang	Xie	Purchasing Representative	3	Baked Goods & Mixes	Chocolate Biscuits Mix	12 - 12 oz jars
39	Elizabeth	Andersen	Purchasing Representative	8	Soups	Clam Chowder	40 - 100 g pkgs.
40	Sven	Mortensen	Purchasing Representative	3	Beverages	Coffee	15.25 OZ
41	Roland	Wacker	Purchasing Representative	4	Canned Meat	Crab Meat	10 boxes x 12 pieces
42	Peter	Krschne	Purchasing Director	8	Sauces	Curry Sauce	30 gift boxes
43	John	Edwards	Purchasing Representative	5	Dried Fruit & Nuts	Dried Apples	24 pkgs. x 4 pieces
44	Andre	Ludick	Purchasing Manager	8	Dried Fruit & Nuts	Dried Pears	24 - 12 oz bottles
45	Carlos	Grilo	Accounting Assistant	5	Dried Fruit & Nuts	Dried Plums	24 - 4 oz tins
46	Helena	Kupkova	Accounting Assistant	4	Canned Fruit & Vegetables	Fruit Cocktail	12 - 12 oz cans
47	Daniel	Goldschmidt	Purchasing Representative	3	Pasta	Gnocchi	16 - 500 g tins
48	Jean Philippe	Bagel	Purchasing Representative	3	Cereal	Granola	10 pkgs
49	Catherine	Autier Miconi	Accounting Assistant	6	Beverages	Green Tea	50 - 300 g pkgs.
50	Alexander	Eggerer	Snr Account Manager	4	Sauces	Hot Pepper Sauce	16 - 2 kg boxes
51	George	Li	Purchasing Manager	7	Grains	Long Grain Rice	24 - 250 g pkgs.
52	Bernard	Tham	Purchasing Representative	8	Jams, Preserves	Marmalade	24 - 250 g pkgs.
53	Luciana	Ramos	Accounting Assistant	2	Dairy Products	Mozzarella	32 - 8 oz bottles
54	Michael	Entin	Snr Account Manager	1	Condiments	Mustard	24 - 8 oz jars
55	Jonas	Hasselberg	Purchasing Manager	3	Oil	Olive Oil	24 - 200 g pkgs.
56	John	Rodman	Jnr Account Manager	6	Pasta	Ravioli	5 kg pkg.
57	Run	Liu	Accounting Assistant	1	Baked Goods & Mixes	Scones	12 boxes
58	Karen	Toh	Snr Account Manager	3	Condiments	Syrup	1 lb bag
59	Amritansh	Raghav	Purchasing Manager	8	Sauces	Tomato Sauce	20 bags per box
60	Soo Jung	Lee	Purchasing Representative	3	Dried Fruit & Nuts	Walnuts	10 per box
61	Anna	Bedecs	Purchasing Manager	4	Dried Fruit & Nuts	Almonds	10 boxes x 20 bags
62	Antonio	Gratacos Solsona	Jnr Account Manager	8	Beverages	Beer	12 - 550 ml bottles
63	Thomas	Axen	Accounting Assistant	5	Jams, Preserves	Boysenberry Spread	48 - 6 oz jars
64	Christina	Lee	Snr Account Manager	8	Condiments	Cajun Seasoning	36 boxes
65	Martin	O'Donnell	Purchasing Manager	5	Beverages	Chai	12 - 8 oz jars
66	Francisco	Pérez-Olaeta	Purchasing Representative	4	Candy	Chocolate	12 - 1 lb pkgs.
67	Ming-Yang	Xie	Purchasing Representative	1	Baked Goods & Mixes	Chocolate Biscuits Mix	12 - 12 oz jars
68	Elizabeth	Andersen	Purchasing Representative	3	Soups	Clam Chowder	40 - 100 g pkgs.
69	Sven	Mortensen	Purchasing Representative	8	Beverages	Coffee	15.25 OZ
70	Roland	Wacker	Purchasing Representative	3	Canned Meat	Crab Meat	10 boxes x 12 pieces
71	Peter	Krschne	Purchasing Director	4	Sauces	Curry Sauce	30 gift boxes
72	John	Edwards	Purchasing Representative	8	Dried Fruit & Nuts	Dried Apples	24 pkgs. x 4 pieces

NOTE: Another option to help further reduce the number of pages required to print a table, is to resize and reduce column widths or even hide columns not necessary to the printout.

SAMPLE

END OF THE EVALUATION PREVIEW

This sample is approximately half of the complete course and is provided for evaluation purposes only.

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