



University Information
Technology Services

Microsoft Access 2010

Level 3

University Information Technology Services

Training, Outreach, Learning Technologies and Video Production

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University Information Technology Services

Access 2010 Level 3

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Introduction

Microsoft Access allows people to effectively and efficiently organize data. This document, Level 3, has been developed to help you learn more about several useful features in Access including printing, applying queries, and importing Excel files. The various sections presented in this document will help you to build a solid knowledge foundation of the software.

Objectives

The following objectives are covered in this document:

- Understanding how to print reports and labels.
- Knowing how to place calculations on reports.
- Having the ability to use the query feature.
- Understanding how to import an Excel file.

Creating a Report

The following explains how to create a report in Access.

1. From the *Create* tab, click *Report Design* (see *Figure 1*).

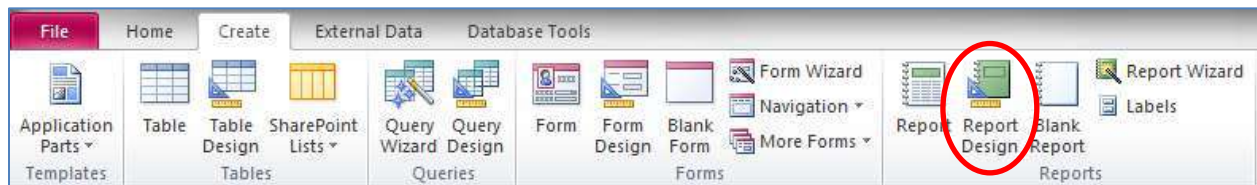


Figure 1 – Report Design Button

2. Right-click over the *Page Header* bar and select *Report Header/Footer* (see *Figure 2*).

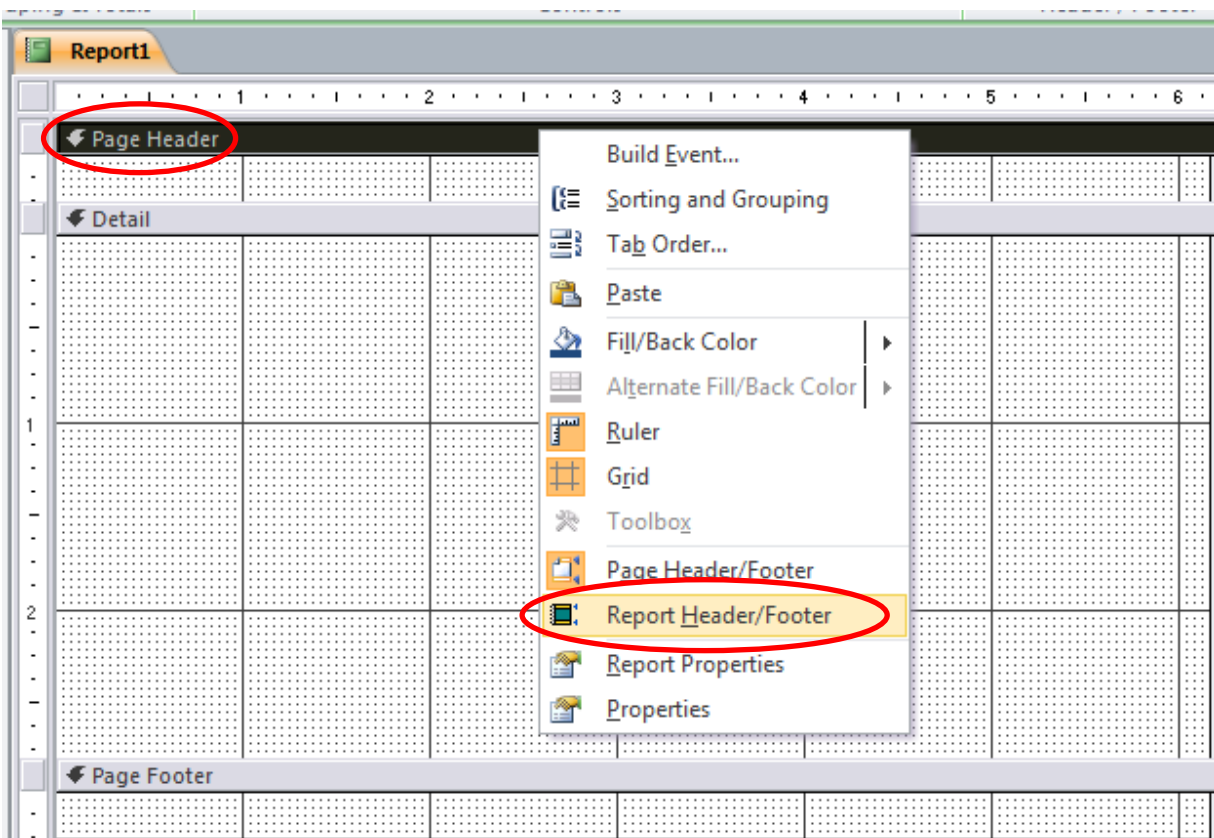


Figure 2 – Report Header/Footer

3. The following explains the different areas available in *Figure 3*.
 - a. **Report Header** – Text placed here will appear on the top of the first page of the report. For example, if there are ten pages in the report, the text would only appear at the top of the first page.
 - b. **Page Header** – Text placed here will appear at the top of every page. This is perfect for column headings and page numbers.
 - c. **Detail** – Whatever is placed here will appear on every page.
 - d. **Page Footer** – Text placed here will appear at the bottom of every page. This is perfect for footers and page numbers.
 - e. **Report Footer** – Text placed here will appear at the bottom of the last page of the report. This is a perfect place to put a Job Complete or End of Report statement.

The screenshot shows a report design interface titled "Report1". At the top, there is a horizontal ruler with markings from 1 to 6. Below the ruler, the report is divided into several sections, each with a header bar and a grid of cells:

- Report Header:** A single row of 6 cells.
- Page Header:** A single row of 6 cells.
- Detail:** A large section consisting of 2 rows and 6 columns of cells.
- Page Footer:** A single row of 6 cells.
- Report Footer:** A single row of 6 cells.

On the left side of the grid, there are vertical markers labeled "1" and "2", indicating page boundaries. The grid cells are filled with a light gray dotted pattern.

Figure 3 – Creating Reports

4. The different areas of the report sections can be re-sized. To do this, allow your mouse pointer to hover over the top of a section bar. As you do this, a double-arrow will appear (see *Figure 4*). When you see the double-arrow, hold down the mouse button and move your mouse to make the section larger or smaller. Use the ruler on the left side of the report for precise sizing.

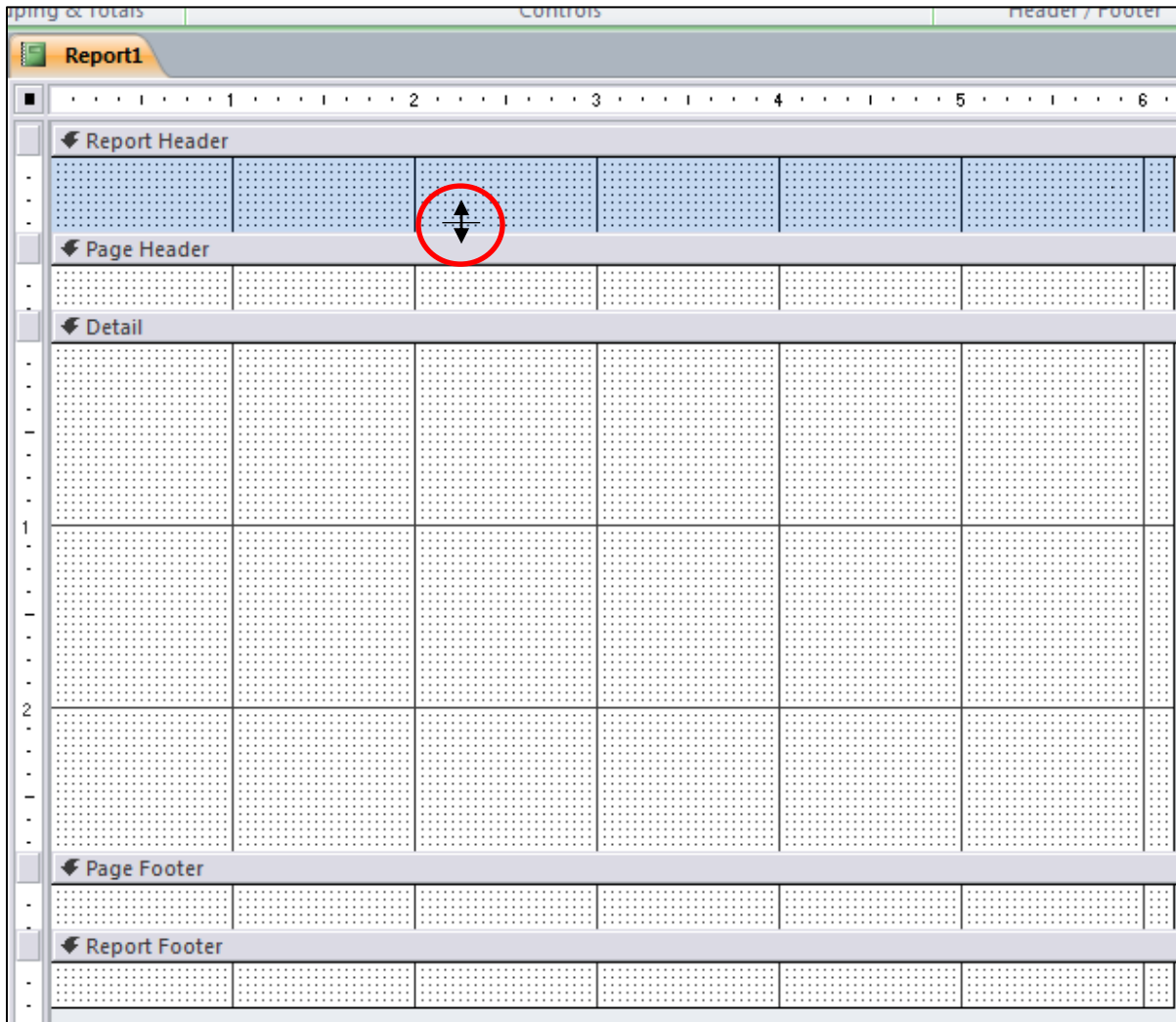


Figure 4 – Adjusting the Size of Report Sections

5. The width of the report can also be adjusted. To do this, allow your mouse pointer to hover over the right edge of the report. As you do this, a double-arrow will appear (see *Figure 5*). When you see the double-arrow, hold down the mouse button and move your mouse to make the report larger or smaller. Use the ruler on the top of the report for precise sizing.

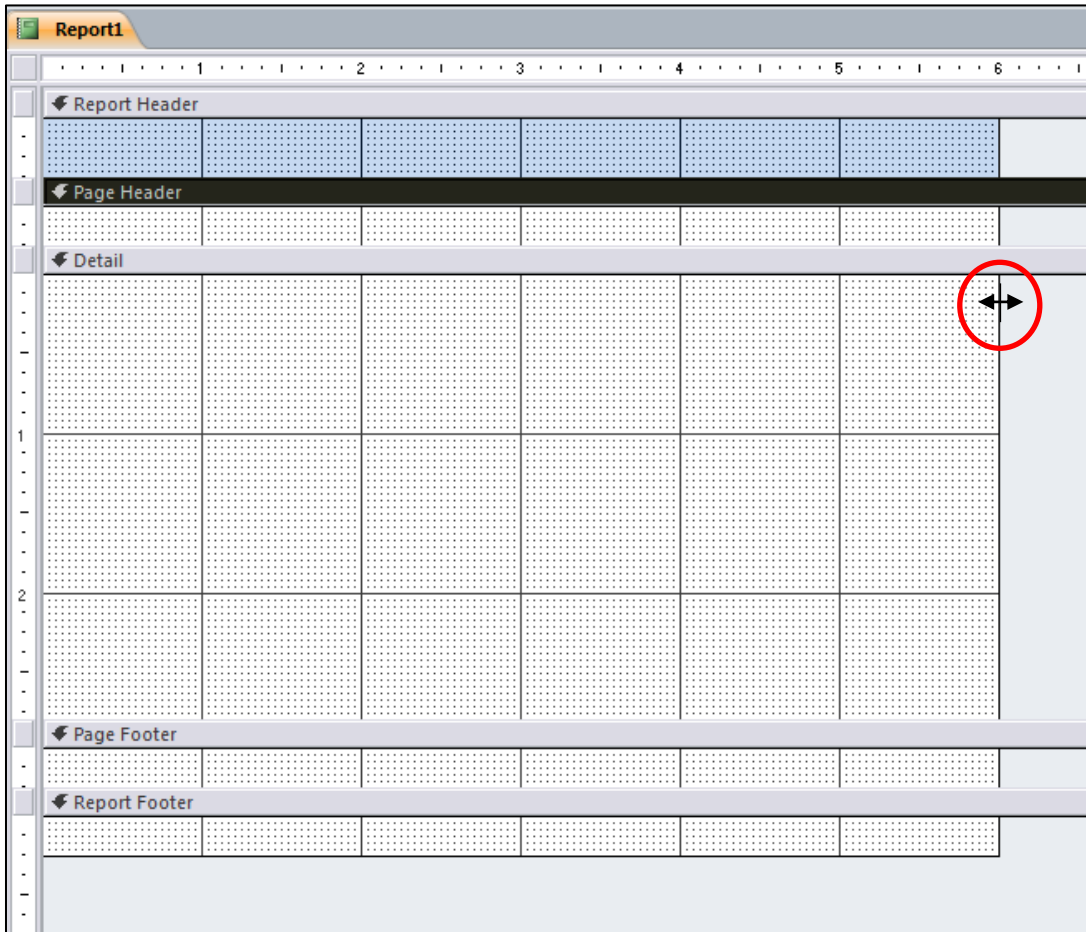


Figure 5 – Adjusting the Width of the Report

6. Labels can be used to place text in the different areas of the report. The following explains how to include a label on the report.
 - a. From the *Design* tab, click the *Label* button (see *Figure 6*).

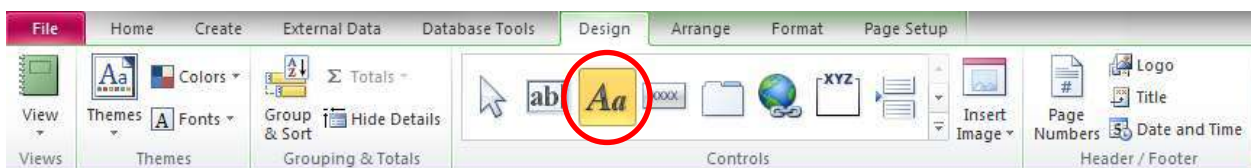


Figure 6 – Label button

- b. Draw a text box on the report and enter your text.
- c. Click anywhere on the report to de-select the text box.
- d. Select the text.
- e. From the *Home* tab, use the *Text Formatting* tools to format the text (see *Figure 7*).

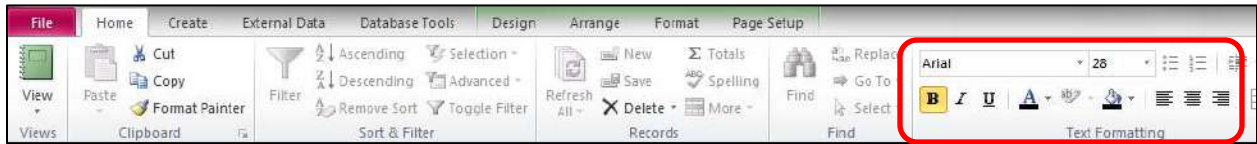


Figure 7 – Text Formatting Tools

- f. Resize and move the text box so that it appears neatly on the report. *Figure 8* shows an example of text that has been placed in the *Report Header* area of the report.

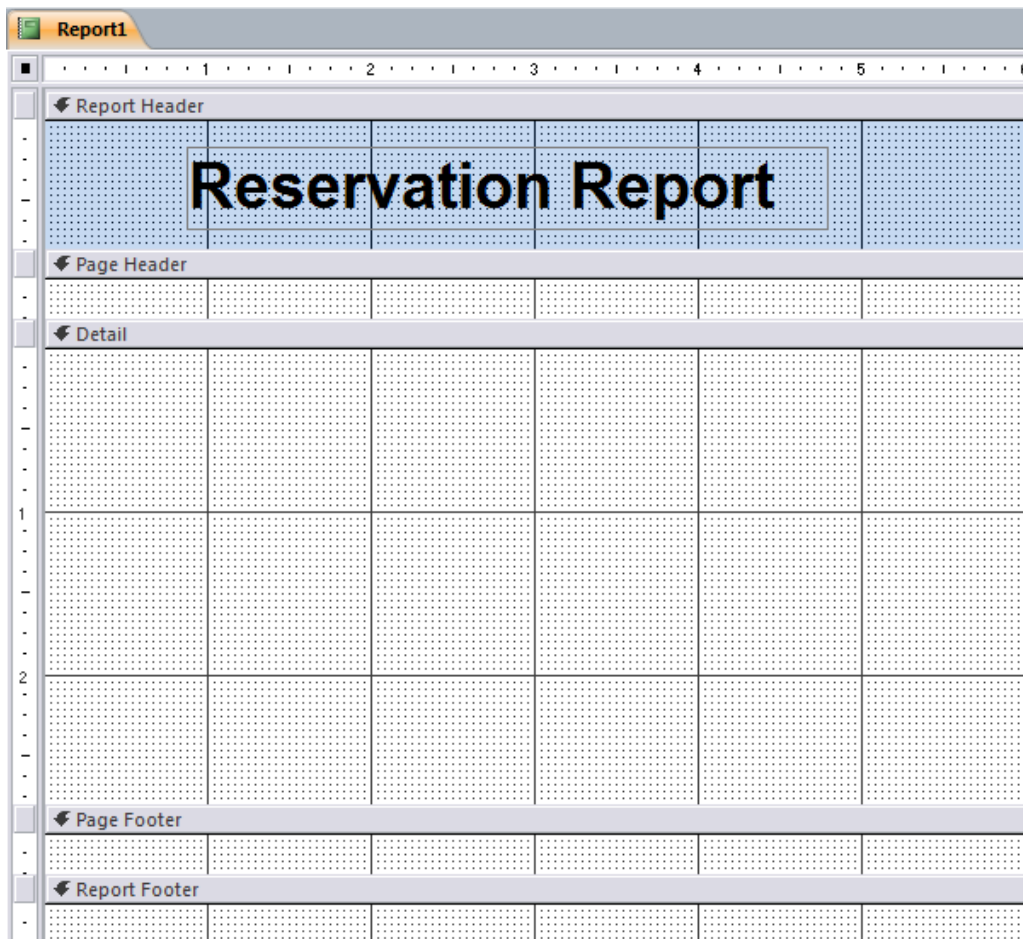


Figure 8 – Text on the Report

7. To add fields to the report, click the *Add Existing Fields* button on the *Design* tab (see *Figure 9*).



Figure 9 – Adding Fields to the Report

8. In the *Field List* window, click the “+” next to your table name (see *Figure 10*).



Figure 10 – Field List

9. Drag the field names from the *Field List* window to the *Detail* section of the report (see *Figure 11*).

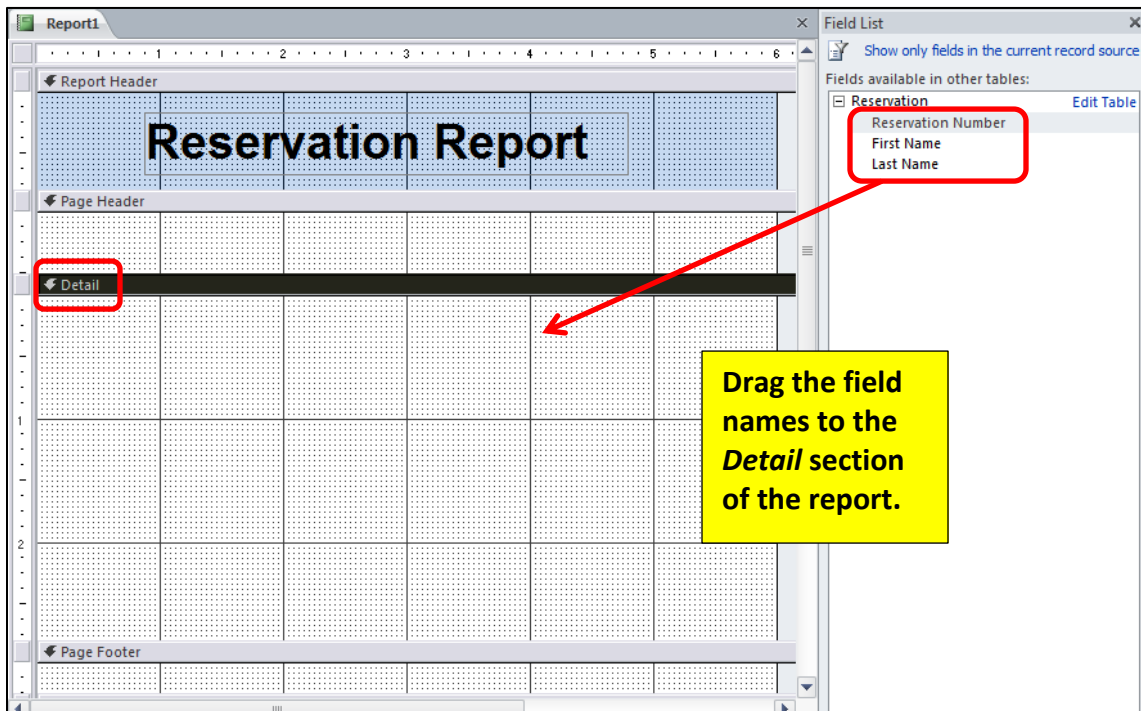


Figure 11 – Placing Fields in the *Detail* Section of the Report

10. You are now ready to create column headings. To do this, click to select the label of your field (see *Figure 12*).

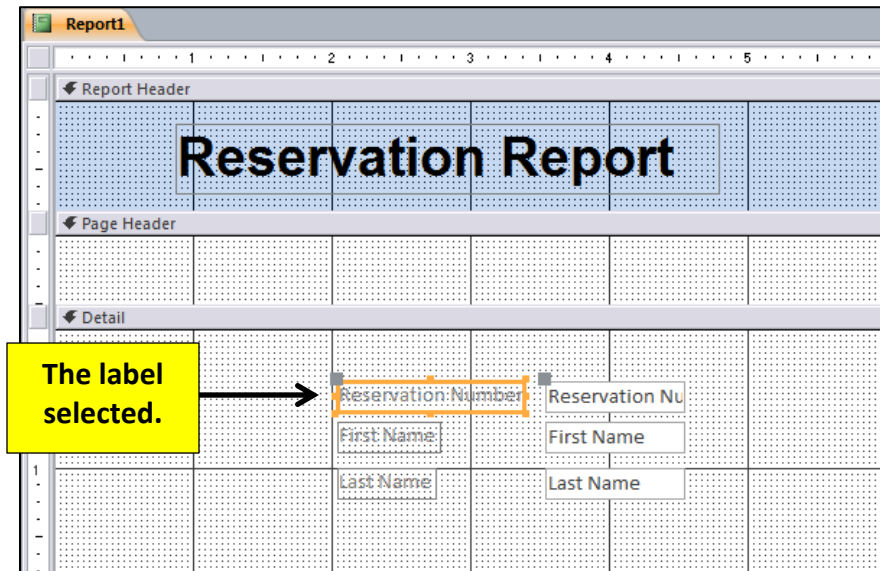



Figure 12 – Select the Label

11. Allow your mouse pointer to hover over the edge of the selected label so that your mouse pointer appears as the following: 

When your mouse pointer appears as above, right-click and select the option *Cut* from the menu that appears.

12. Next, right-click with your mouse in the *Page Header* area and select the option *Paste* from that menu that appears (see *Figure 13*).

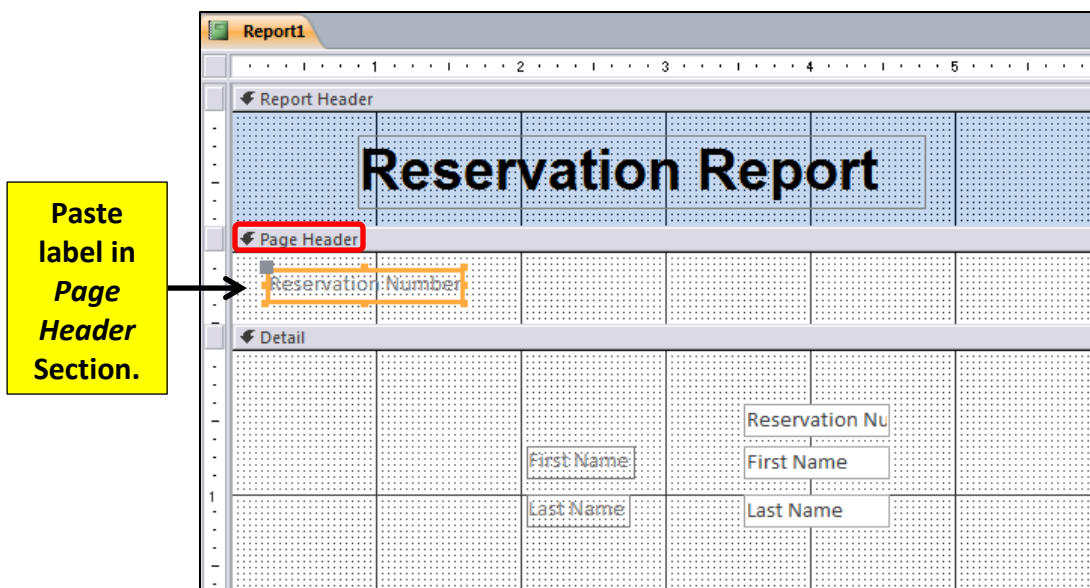


Figure 13 – Creating Column Headings

13. Repeat steps 10-12 above until all of the labels have been moved to the *Page Header* section of the report.
14. Once all of the labels have been moved, neatly arrange the labels in the *Page Header* section with the text boxes in the *Detail Section* (see *Figure 14*).

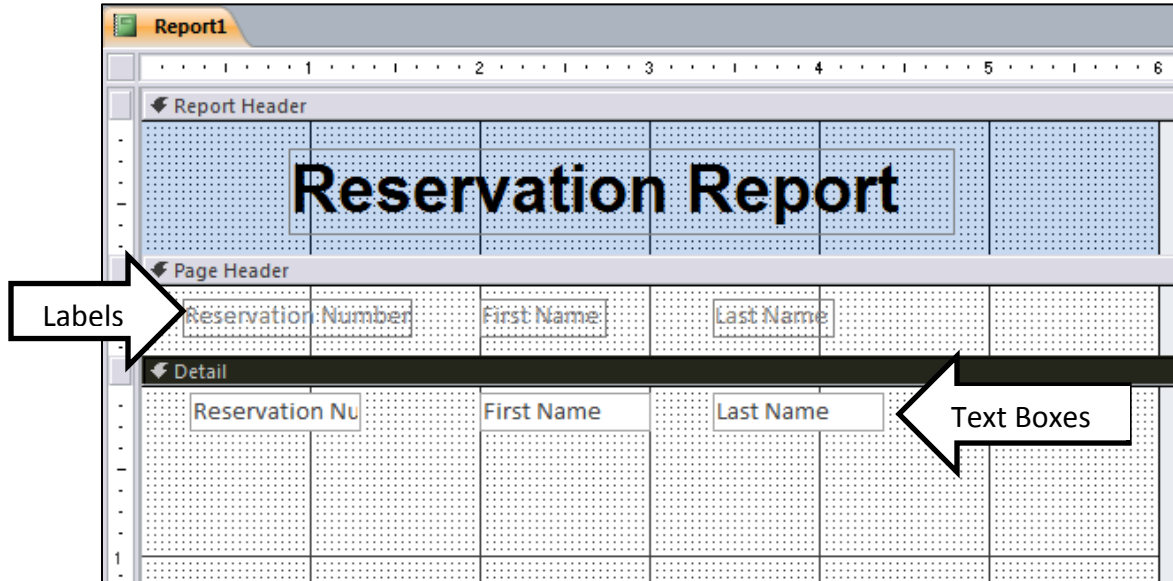


Figure 14 – Creating Column Headings

15. Apply the necessary formatting to the labels in the *Page Header* by using the *Text Formatting* tools in the *Home* category.
16. Decrease the vertical space in the *Detail* section (see *Figure 15*). A larger vertical area in the *Detail* section results in the records being further apart on the report.

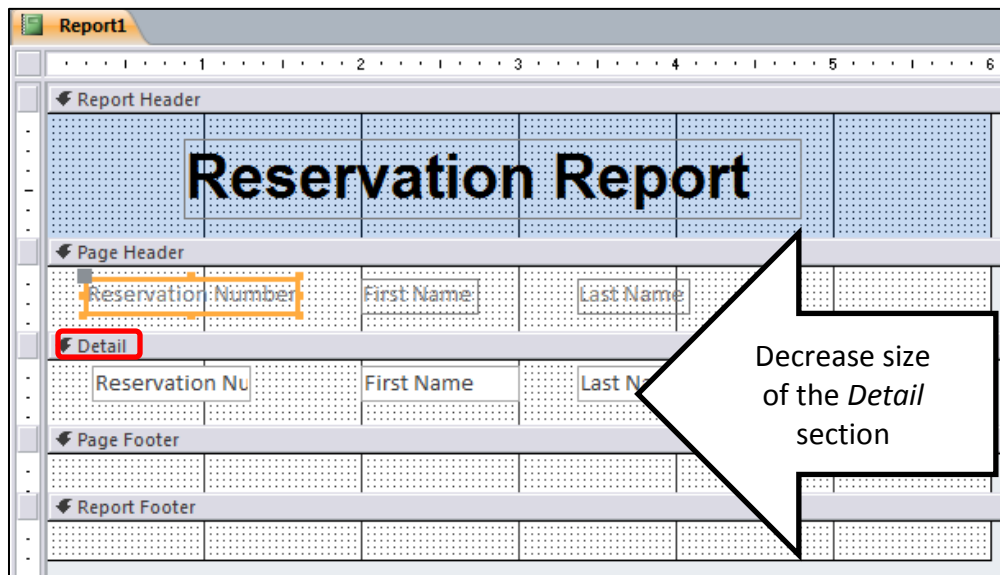


Figure 15 – Decrease the Size of the Detail Section

17. Click the *Page Numbers* and *Date and Time* button on the *Design* tab, if desired (see *Figure 16*).



Figure 16 – Page Numbers and Date and Time

18. To view the report, click the *View* button on the *Design* tab (see *Figure 17*) and select *Report View*.

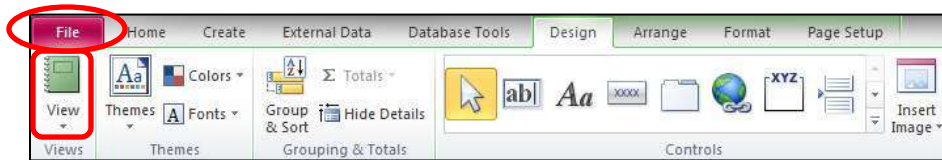


Figure 17 – View Button

19. The report will appear on your screen (see *Figure 18*).

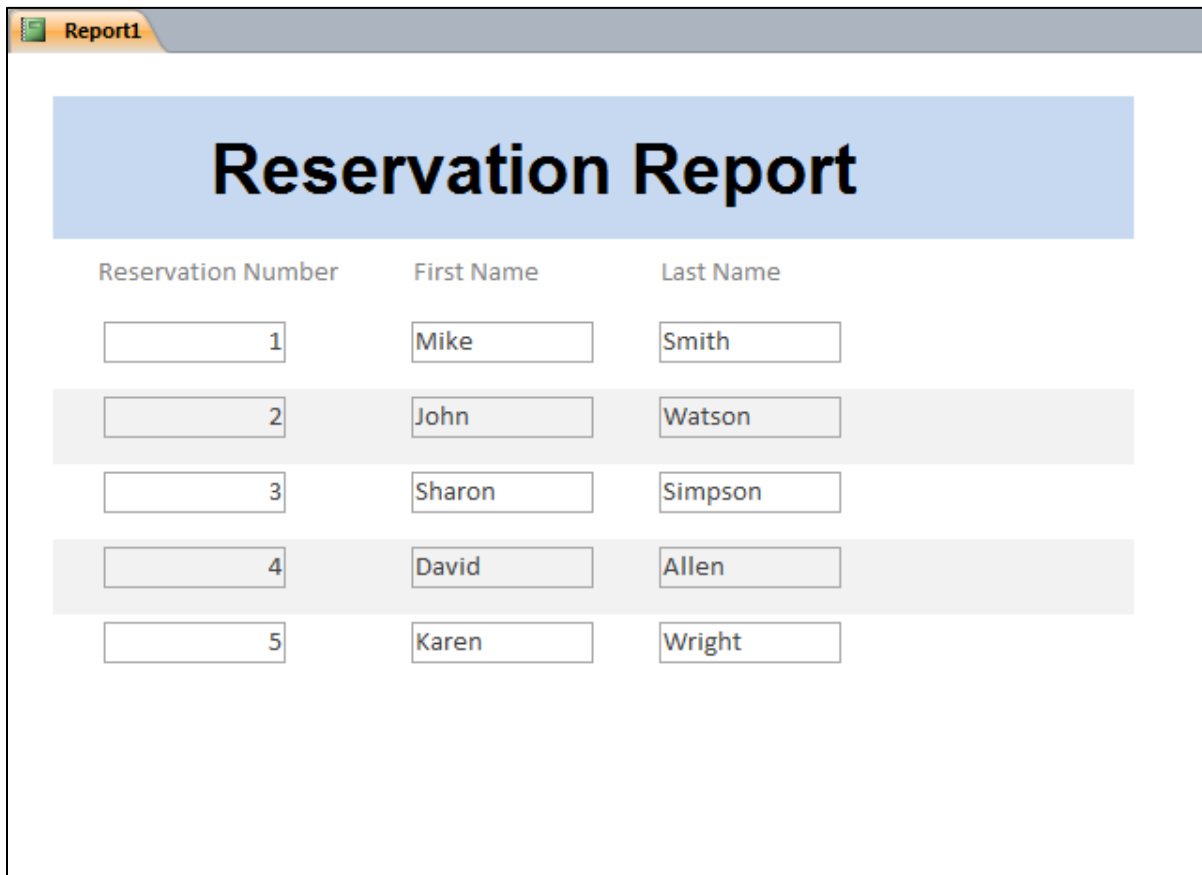


Figure 18 – Report

20. To print the report, click the *File* tab. Then, select *Print*. In the window that appears, select *Print* (see *Figure 19*).

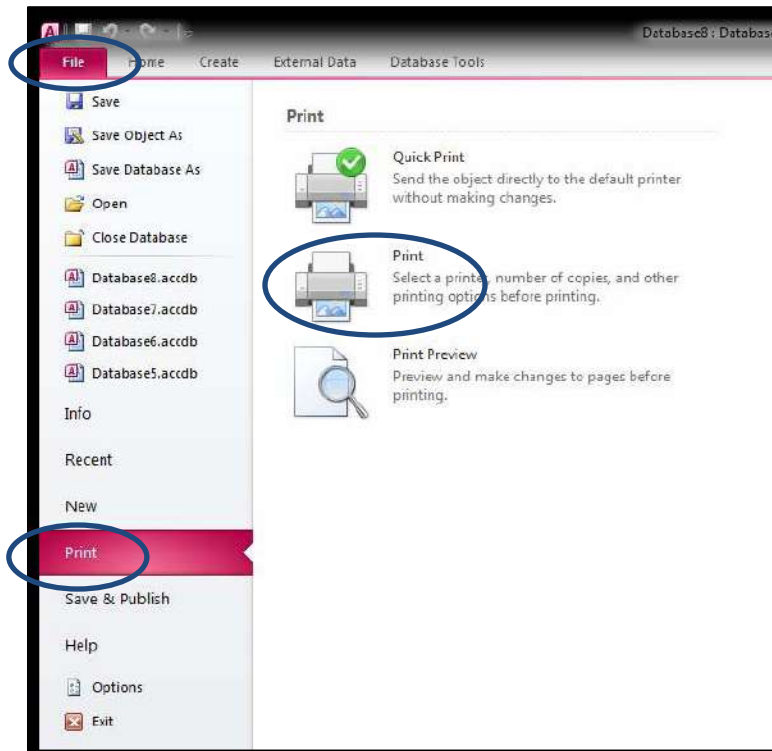


Figure 19 – Printing a Report

21. The report can be saved and opened again later when needed (see *Figure 20*). After saving, if data is added to the database, the new data will be added to the saved report.

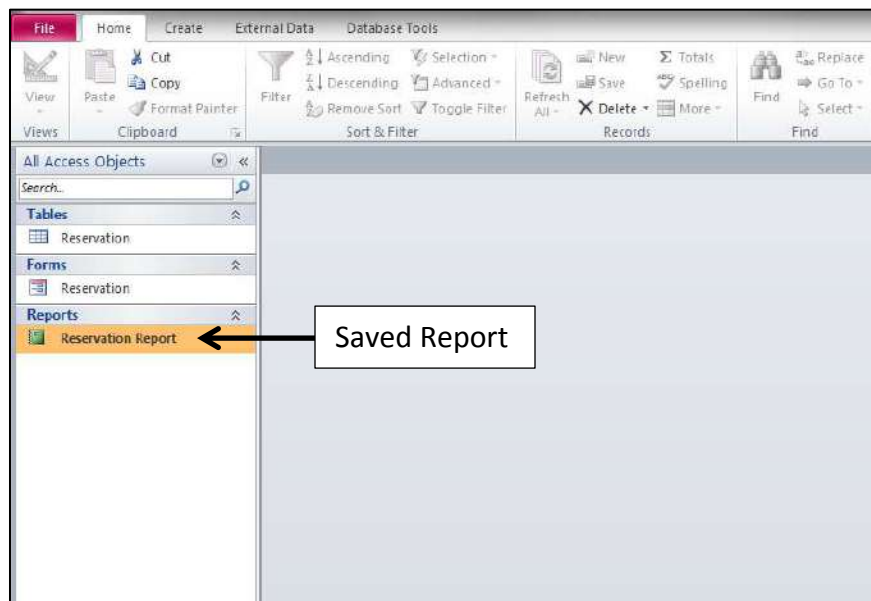


Figure 20 – Reports in Access

Creating Labels

The following explains how to create labels in Access.

1. Click to select the table containing the data that you want to place on labels (see *Figure 21*).



Figure 21 – Labels

2. Click the *Labels* button on the *Create* tab (see *Figure 22*).

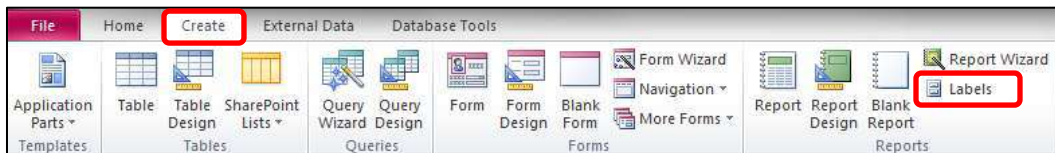


Figure 22 – Labels Button

3. In the *Label Wizard* window that appears, select the *manufacturer* and *product number* and click *Next* (see *Figure 23*).

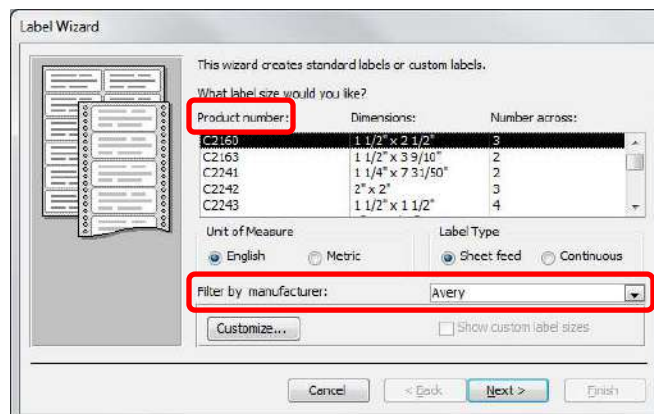


Figure 23 – Labels Wizard

- Next, make the adjustments for the text formatting and click *Next* (see *Figure 24*).

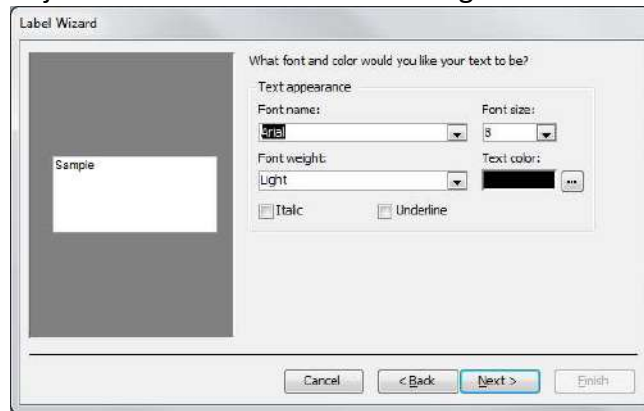


Figure 24 – Labels Wizard

- Next, click the arrow (see *Figure 25*) to move the fields from *Available fields* to the *Prototype label*.

For the *Prototype label*, press the *Enter* key to move the next line and press the *Space Bar* to insert a space in between fields.

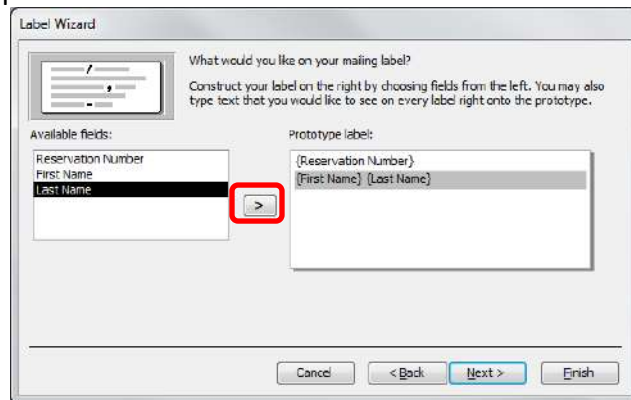


Figure 25 – Labels Wizard

- In the next window, if you would like to sort the data, select the field you would like to sort by (example: *Last Name*), click the *Arrow* button to move the selected field from the *Available fields* category to the *Sort by* category (see *Figure 26*).

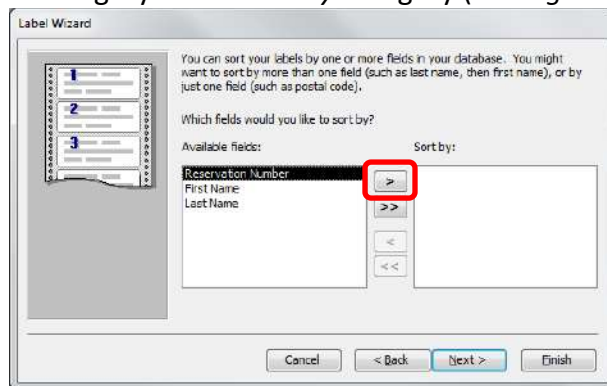


Figure 26 – Labels Wizard

7. In the next window, enter the name for the report and click the *Finish* button (see *Figure 27*).

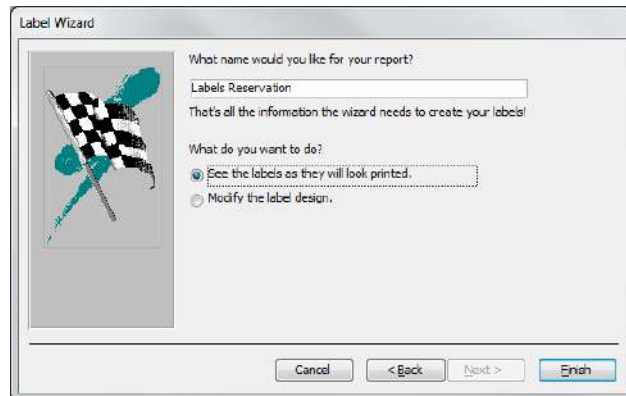


Figure 27 – Labels Wizard

8. Next, click the *Print* button to send the labels to the printer or the *Close* button to return to the main view of the database (see *Figure 28*).

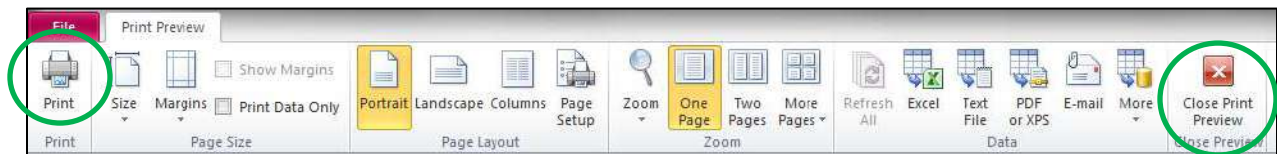


Figure 28 – Labels Wizard

Placing Calculations on a Report

The following explains how to place a calculation on a report. The following will show how to calculate the total sales made by each store during a two-day sale (see *Figure 29*).

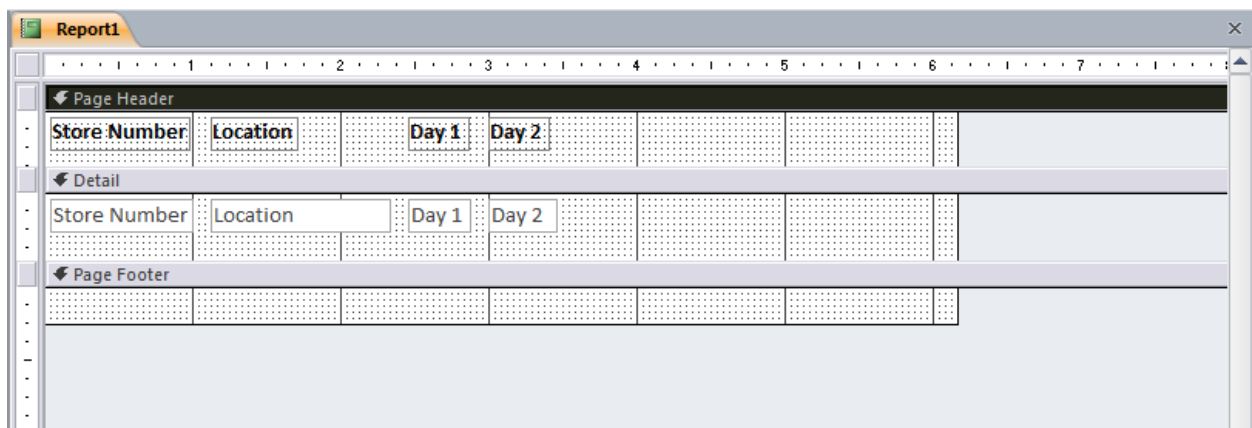


Figure 29 – Calculations on Reports

1. To place a text box on the report, click the *Text Box* button on the *Design* tab (see *Figure 30*).

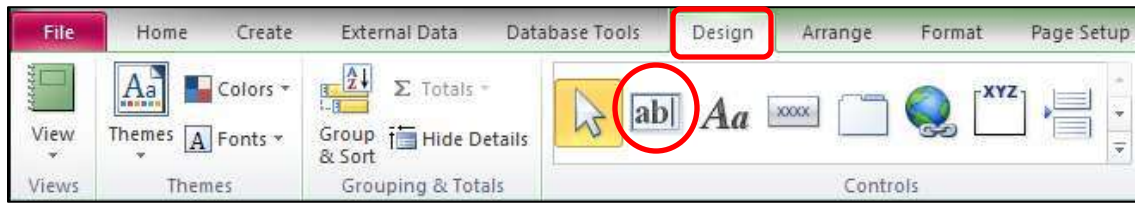


Figure 30 – Text Box button

2. Draw a text box in the *Detail* section of the report (see *Figure 31*).

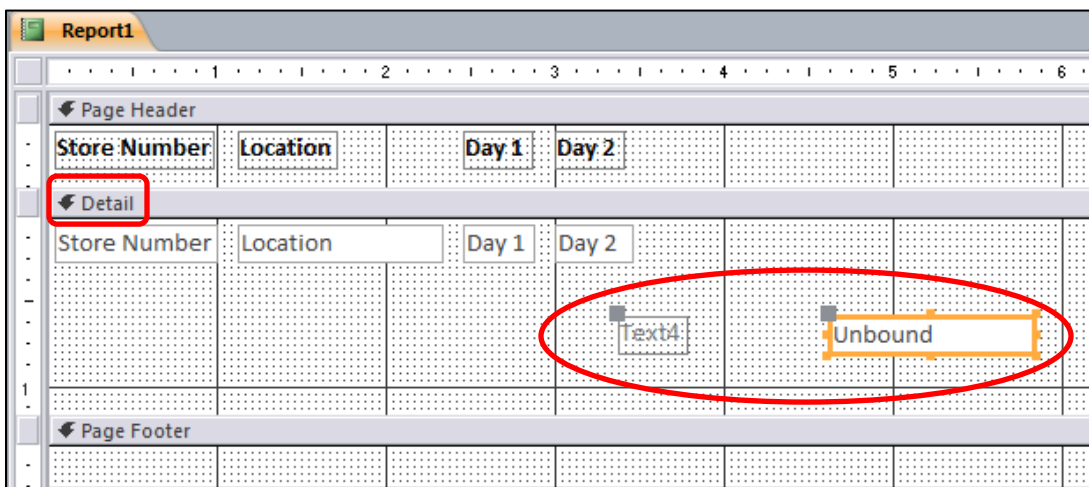


Figure 31 – Text Box in the Detail section

3. Move the label from the *Detail* section to the *Page Header* section (see *Figure 32*). The following explains how to accomplish this.
 - a. Click to select the label (see *Figure 32*).
 - b. Right-click the label. In the menu that appears, select *Cut*.
 - c. Right-click anywhere inside the *Page Header* section. In the menu that appears, select *Paste*.

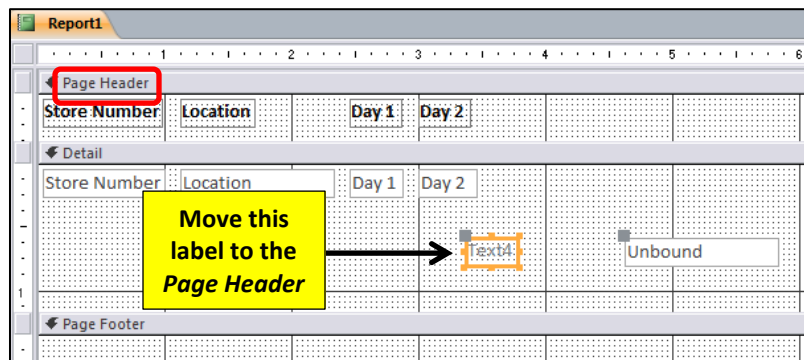


Figure 32 – Moving the Label

- Once the label is in the *Page Header* section, align the text box with the label (see *Figure 33*).

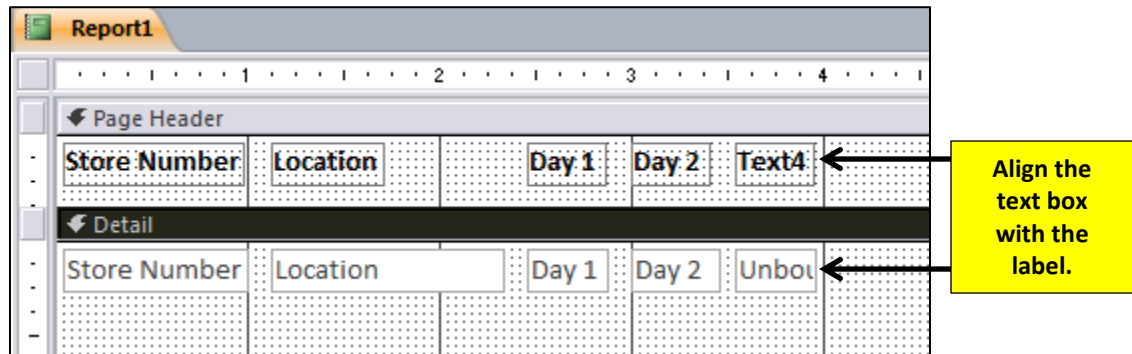


Figure 33 – Aligning the Text Box with the Label

- Enter a descriptive name for the label (see *Figure 34*).

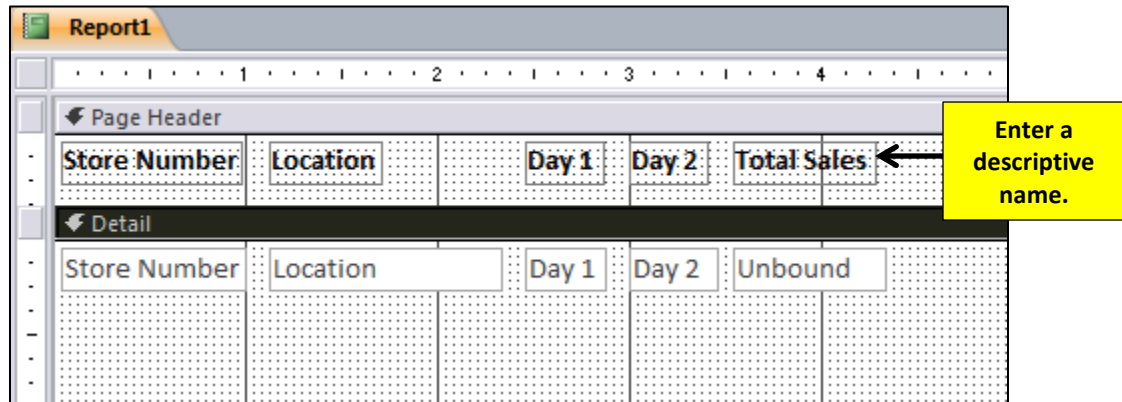


Figure 34 – Entering a Descriptive Name

- Select the text box (see *Figure 35*).

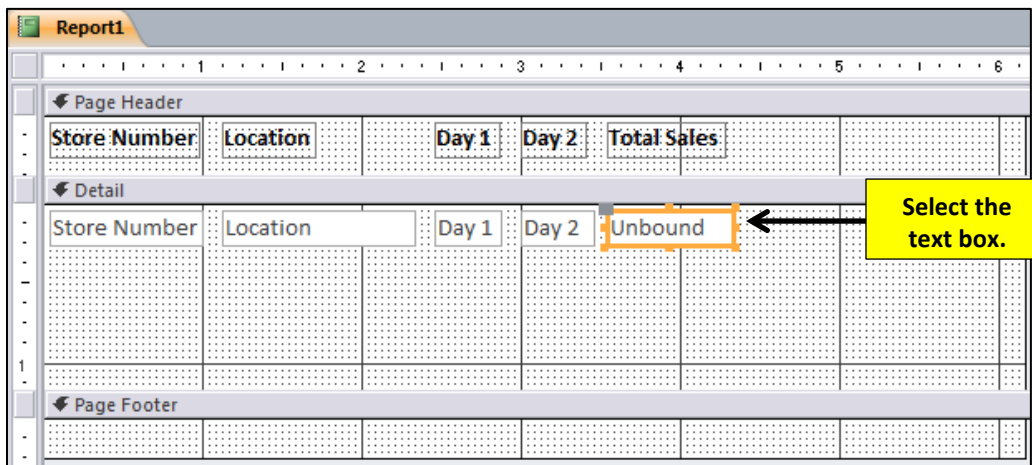


Figure 35 – Select the Text Box

- From the *Design* tab, click *Property Sheet* (see *Figure 36*).



Figure 36 – Property Sheet Button

- In the *Property Sheet*, from the *Other* tab, enter a descriptive name for the text box (see *Figure 37*).

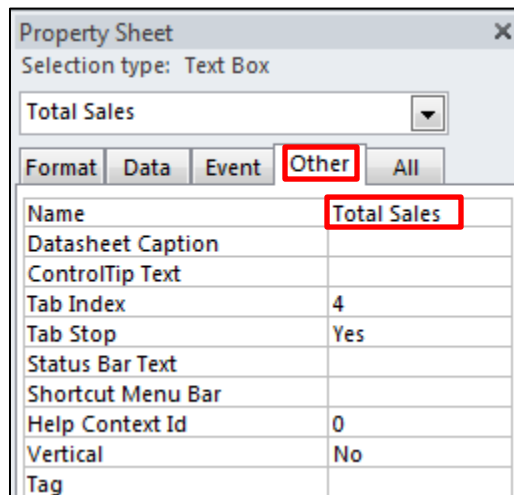



Figure 37 – Property Sheet

- In the *Property Sheet*, from the *Data* tab, click the  button in the *Control Source* category (see *Figure 38*).

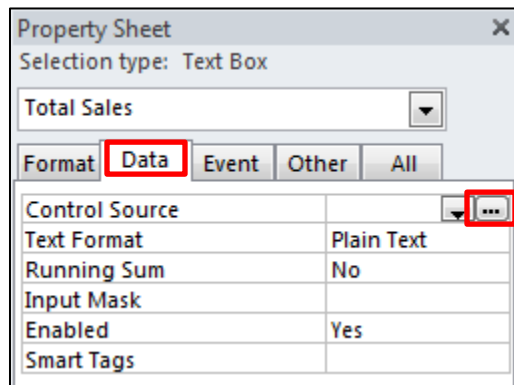


Figure 38 – Property Sheet

10. The following explains how to build the formula in the *Expression Builder* (see *Figure 39*).
 - a. Type the following symbol to begin a formula: =
 - b. Enter the formula.
 - c. You will find the various fields on the report in the *Expression Categories* (see *Figure 39*). Double-click the field that you wish to add to the formula.
 - d. Click *OK* when finished to close the *Expression Builder*.

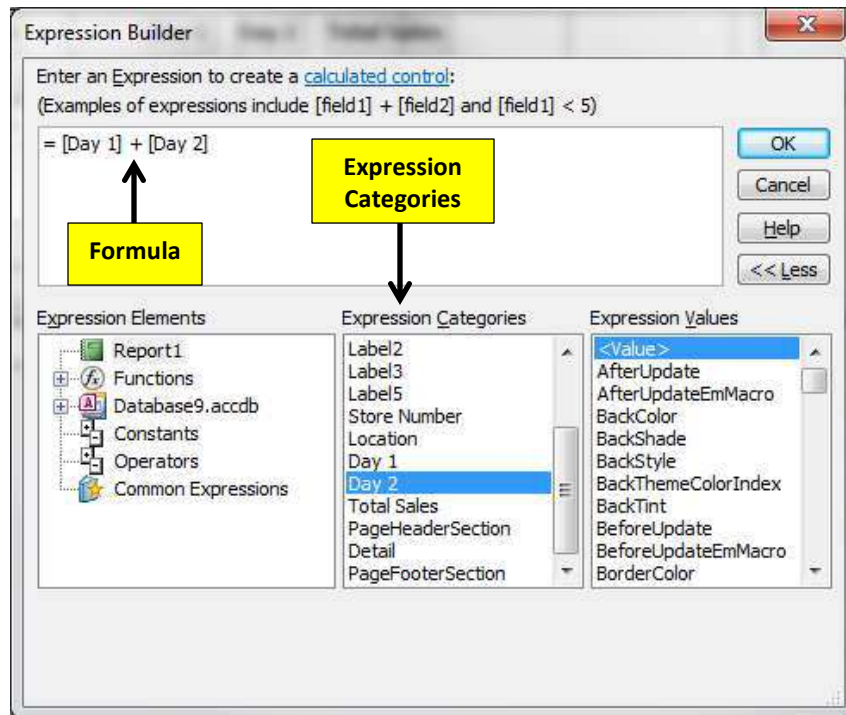


Figure 39 – Expression Builder

11. From the *Format* tab, select the format for the text box (see *Figure 40*).

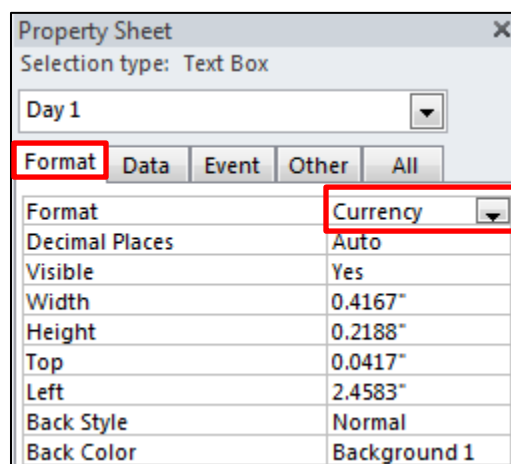
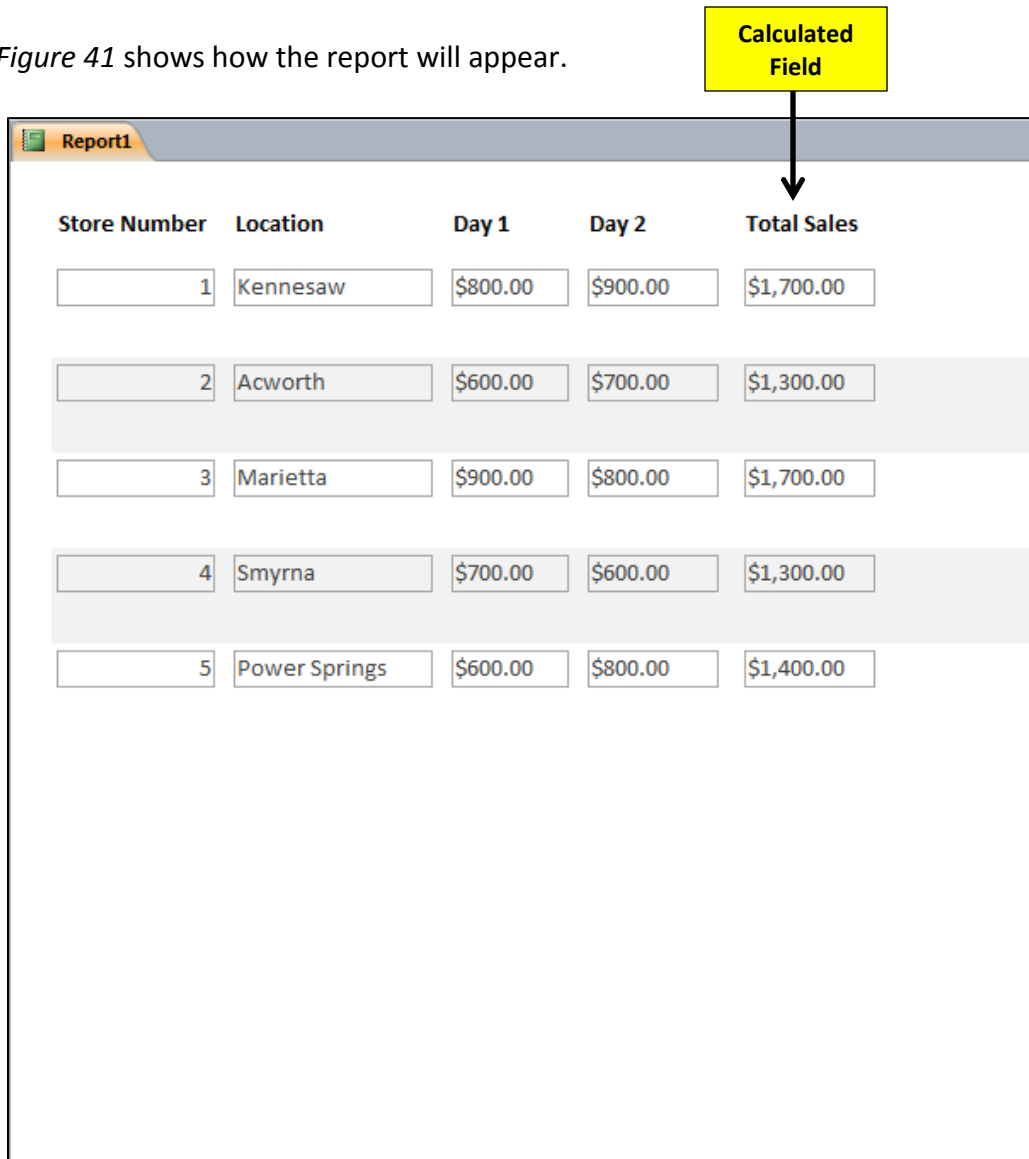


Figure 40 – Format Tab

12. Figure 41 shows how the report will appear.



The screenshot shows a report window titled "Report1" containing a table with the following data:

Store Number	Location	Day 1	Day 2	Total Sales
1	Kennesaw	\$800.00	\$900.00	\$1,700.00
2	Acworth	\$600.00	\$700.00	\$1,300.00
3	Marietta	\$900.00	\$800.00	\$1,700.00
4	Smyrna	\$700.00	\$600.00	\$1,300.00
5	Power Springs	\$600.00	\$800.00	\$1,400.00

A yellow box labeled "Calculated Field" is positioned above the "Total Sales" column, with an arrow pointing down to the column header.

Figure 41 – Report Example

Queries

Queries help you to search through a database for specific information. Examples of items that can be searched for include the following:

- *Stores with sales above or below an indicated amount*
- *Students earning an "A" in a specific course*
- *People who live in a specific zip code*
- *Companies located in a specific state*
- *Employees who have completed a First Aid course*

The following explains how to create a query to search for stores in the database that had sales above \$700 on the first day of a special sale that was held by the company.

1. From the *Create* tab, click the *Query Design* button (see *Figure 42*).

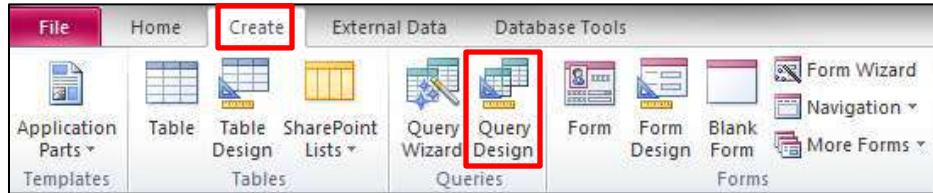


Figure 42 – Query Design

2. The *Show Table* dialogue box will appear. Select the table that you want to add and click *Add* (see *Figure 43*). Click the *Close* button after you have added the table to close the *Show Table* dialogue box.

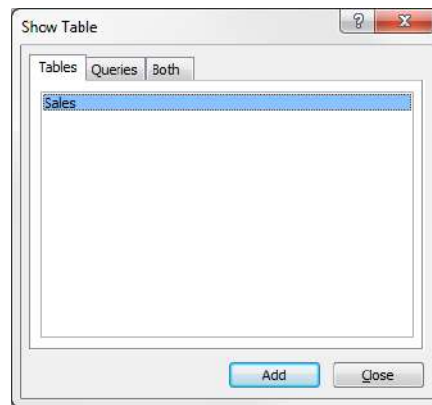


Figure 43 – Show Table

3. Using the table at the bottom of your screen, place your cursor in the first column of the *Field* row (see *Figure 44*).

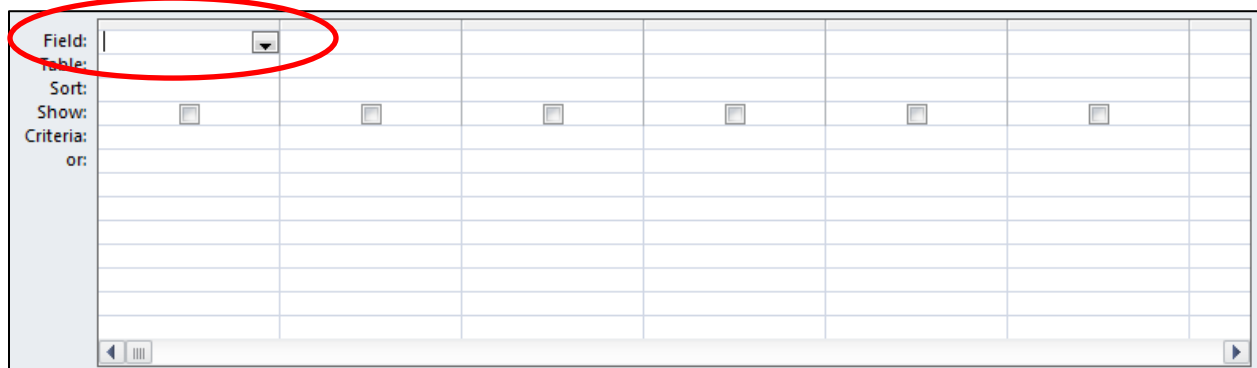


Figure 44 – Queries

- Click the arrow in the first column of the *Field* row (see *Figure 45*). Then, select the field that you want to include in the column.

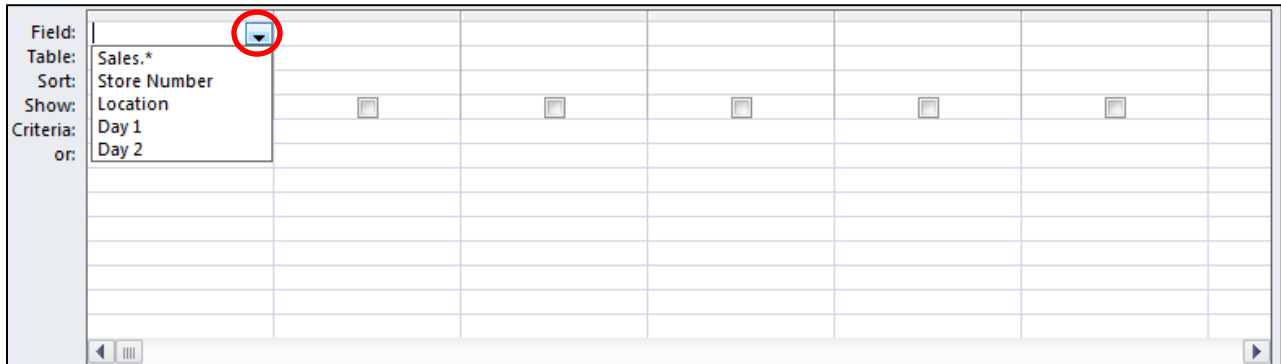


Figure 45 – Queries

- Repeat steps 3-4 above for the other columns until you have all of the fields listed that you want included in this query (see *Figure 46*).

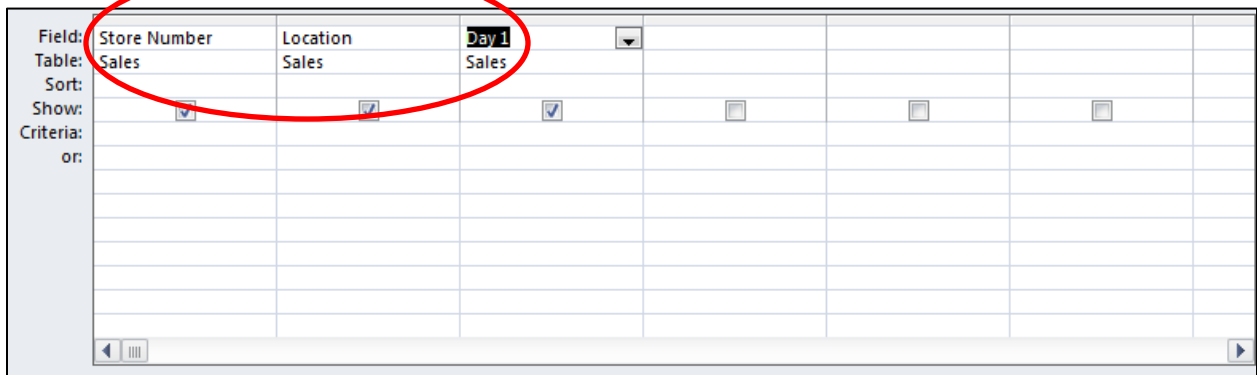


Figure 46 – Queries

- In the *Criteria* row, enter what you are searching for in the database under the field where you want to perform the search (see *Figure 47*). For example, if you wanted to search for stores that had sales \$700 and higher on day 1, you would enter the following in the sort row: **>=700**

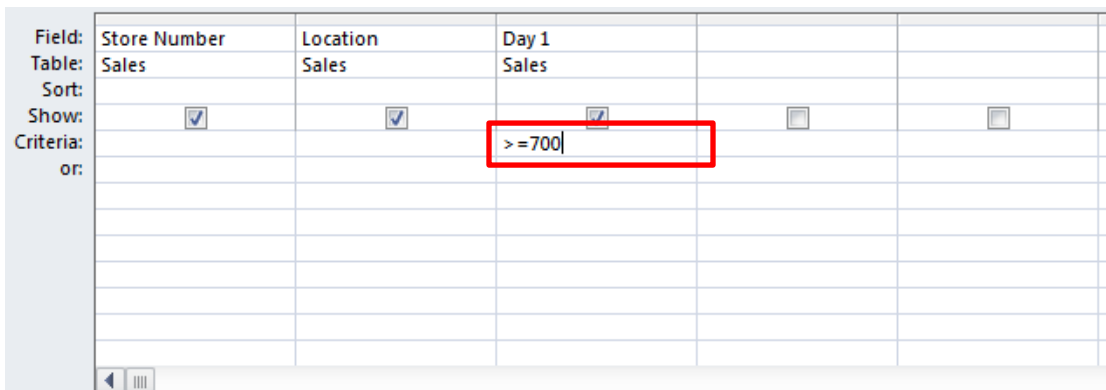


Figure 47 – Criteria

7. Click the *Run* button (see *Figure 48*).

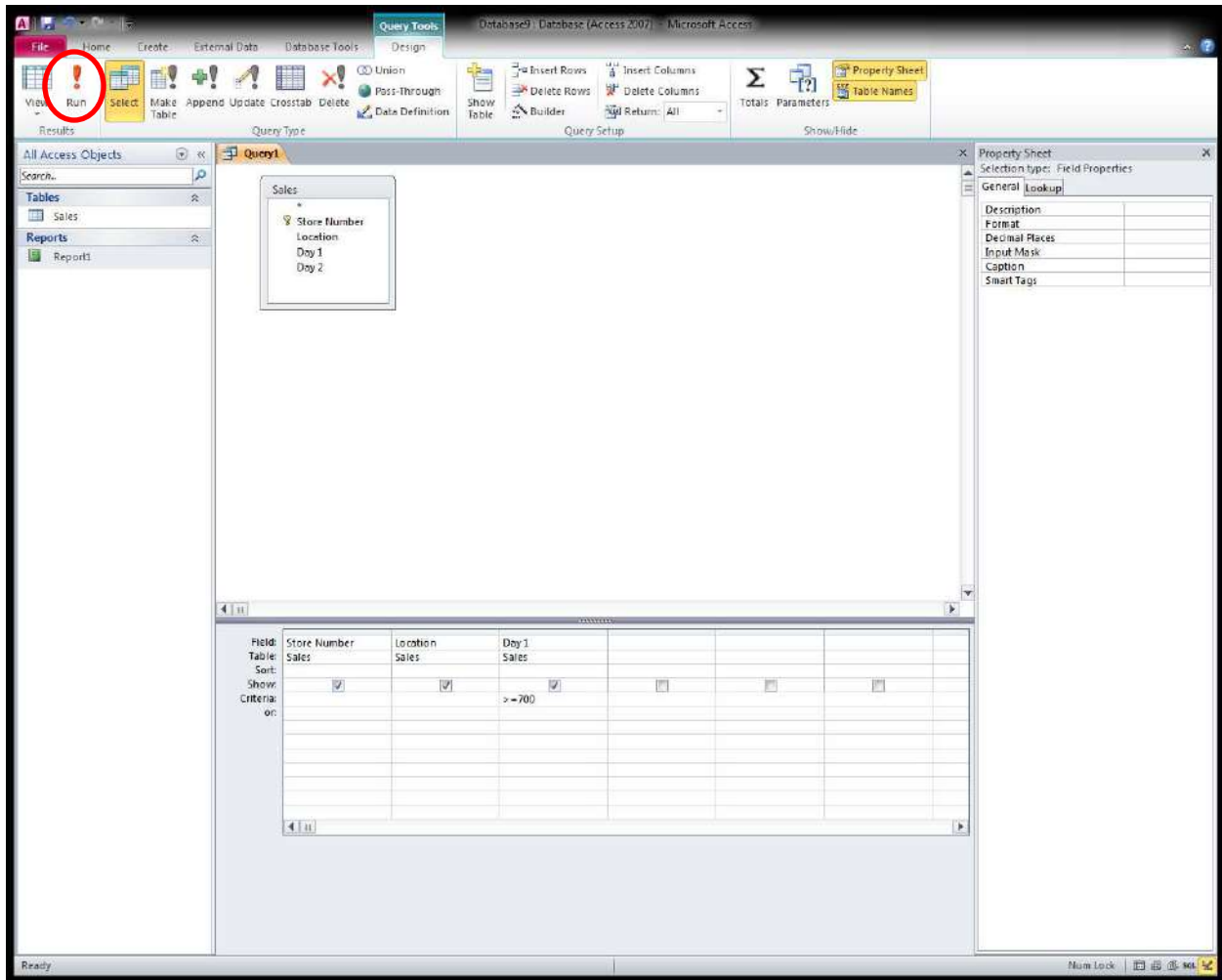


Figure 48 – Run Button

8. Your data will appear on the screen (see *Figure 49*).

Store Num	Location	Day 1	
1	Kennesaw	800	
3	Marietta	900	
4	Smyrna	700	
7	Sandy Springs	900	
8	Norcross	800	
*	(New)		

Figure 49 – Query Example

- To save the query, click the *Save* button at the top-left area of the window. Please note that any data that is entered into the table after the query is saved will be included in the query if it meets the criteria specified.

Including a Query in a Report

The following explains how to include the results of a query in a report.

- From the *Create* tab, click *Report Design* (see Figure 50).

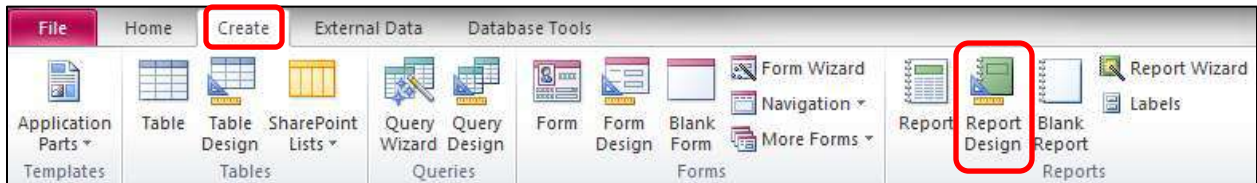


Figure 50 – Report Design Button

- From the *Design* tab, click *Property Sheet* (see Figure 51).



Figure 51 – Property Sheet Button

- On the *Data* tab of the *Property Sheet*, click the *arrow* (see Figure 52) for *Record Source* and select your query from the list that appears.

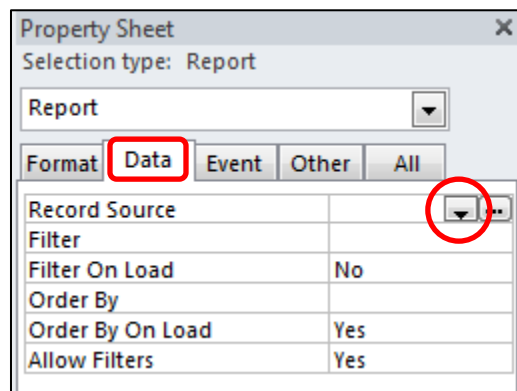


Figure 52 – Queries

- Proceed as normal designing the report. The data that appears on the report will come from the query that you selected.

How to Quickly Create a Form

Access provides users with a quick way to develop a form. The following explains how to create a form using the available development tools.

1. Select the table that needs a form created. In *Figure 53*, the *Customer Information* table is selected.

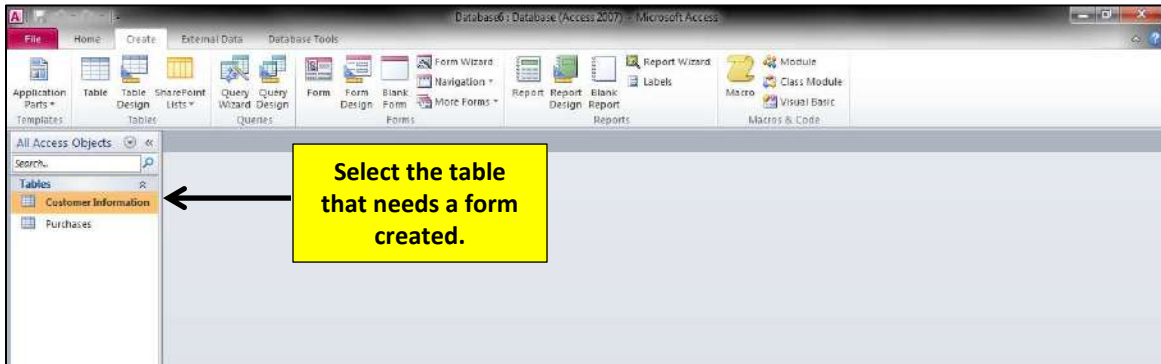


Figure 53 – Forms

2. Click the *Form* button on the *Create* tab (see *Figure 54*).

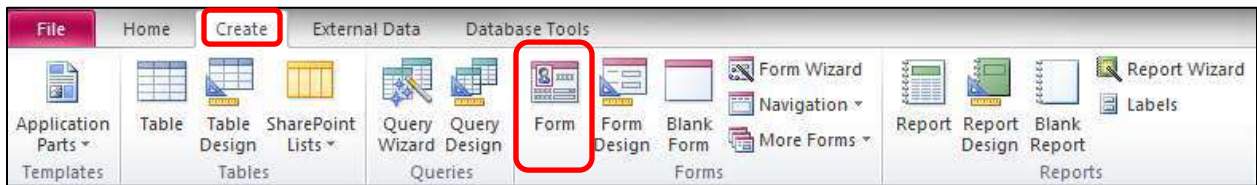


Figure 54 – Forms

3. A form will be created (see *Figure 55*).

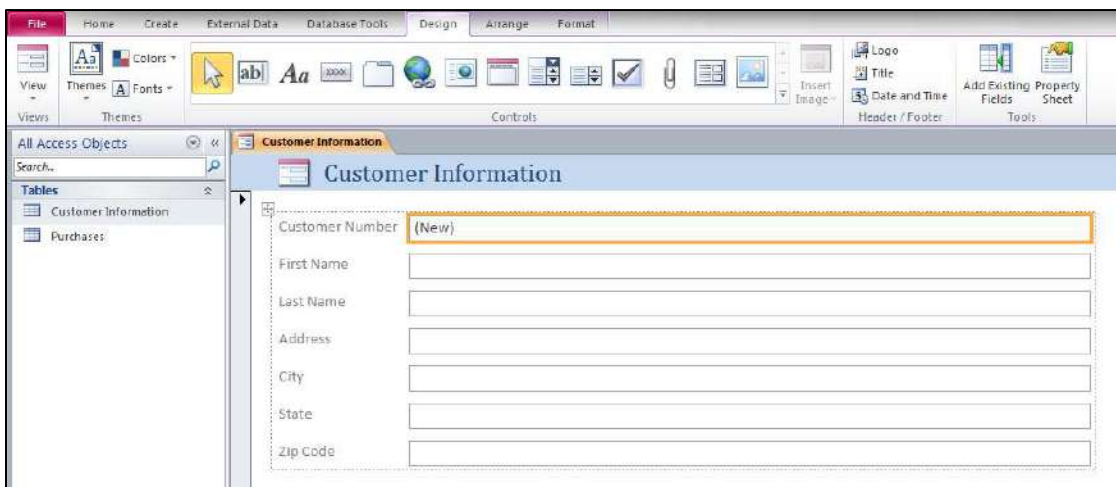


Figure 55 – Forms

4. The following explains how to make adjustments to the form.
 - a. From the *Design* tab, click the *View* button (see *Figure 56*).

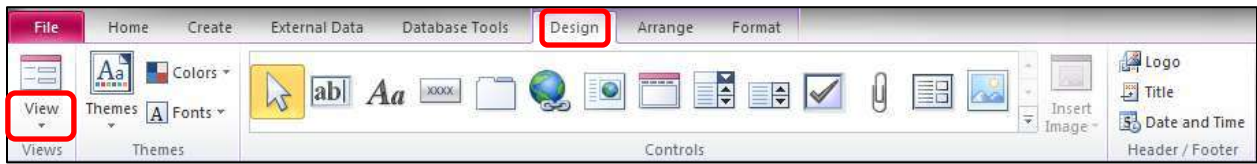


Figure 56 – View Button

- b. In the menu that appears, click *Design View* (see *Figure 57*).

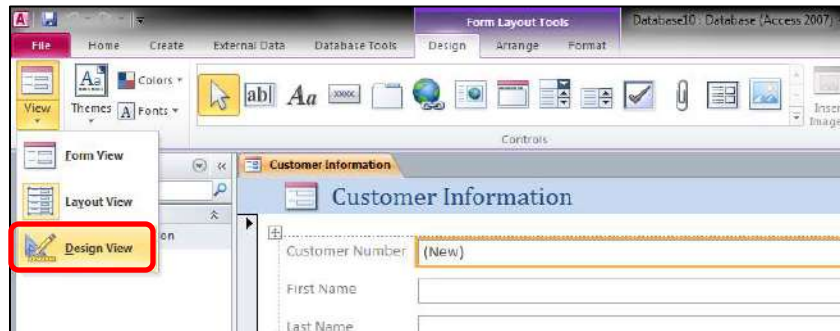


Figure 57 – Design View Button

- c. You can now make adjustments to the form that was created (see *Figure 58*).

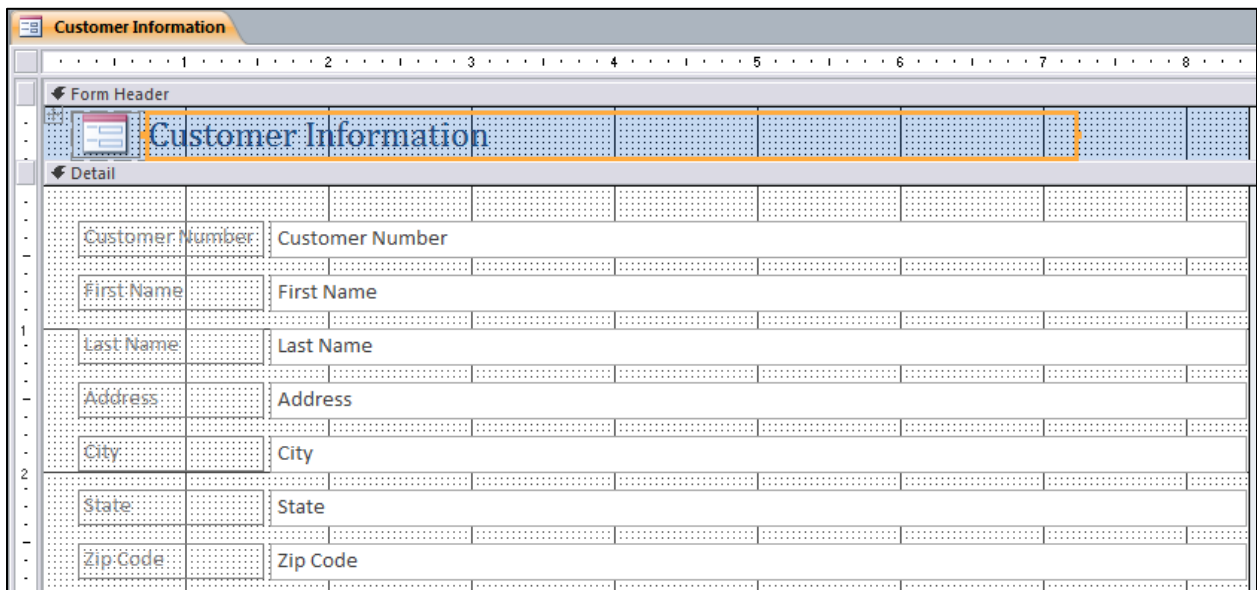


Figure 58 – Form

How to Quickly Create a Report

Access provides users with a quick way to develop a report. The following explains how to create a report using the available development tools.

1. Select the table that needs a report created. In *Figure 59*, the *Customer Information* table is selected.

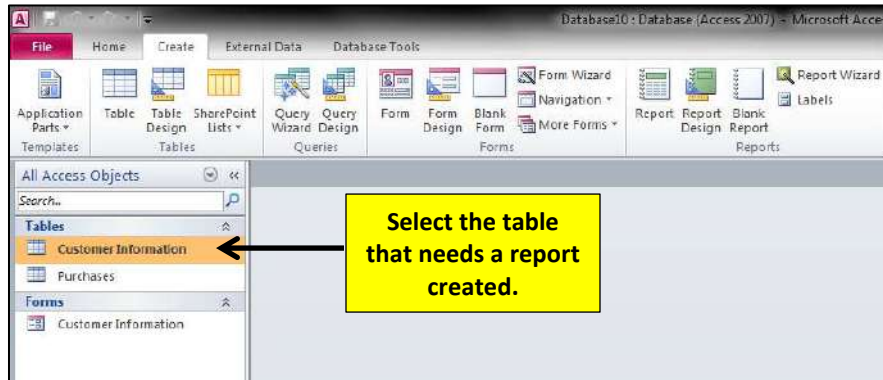


Figure 59 – Reports

2. From the *Create* tab, click the *Report* button (see *Figure 60*).

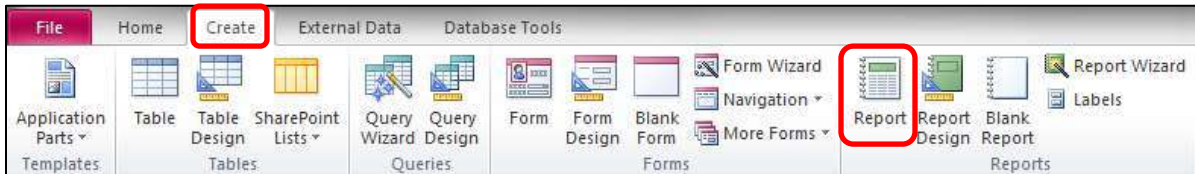


Figure 60 – Report Button

3. The report will appear on your screen (see *Figure 61*).

Customer Number	First Name	Last Name	Address	City
1	Mike	Smith	100 Main St.	Kennesaw
2	Sarah	Johnson	355 Oak Tree Dr.	Acworth
3	Tom	Cook	744 Pine View Dr.	Kennesaw
4	Laura	Wright	577 Eagle Court	Kennesaw
5	Brian	Thomas	399 Lake View Dr.	Kennesaw

Figure 61 – Report

4. The following explains how to make modifications to the report:
 - a. From the *Home* tab, click the *View* button (see *Figure 62*).

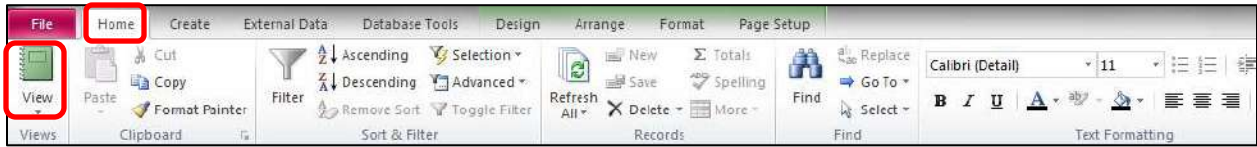


Figure 62 – Report

- b. From the menu option that appears, click *Design View* (see *Figure 63*).

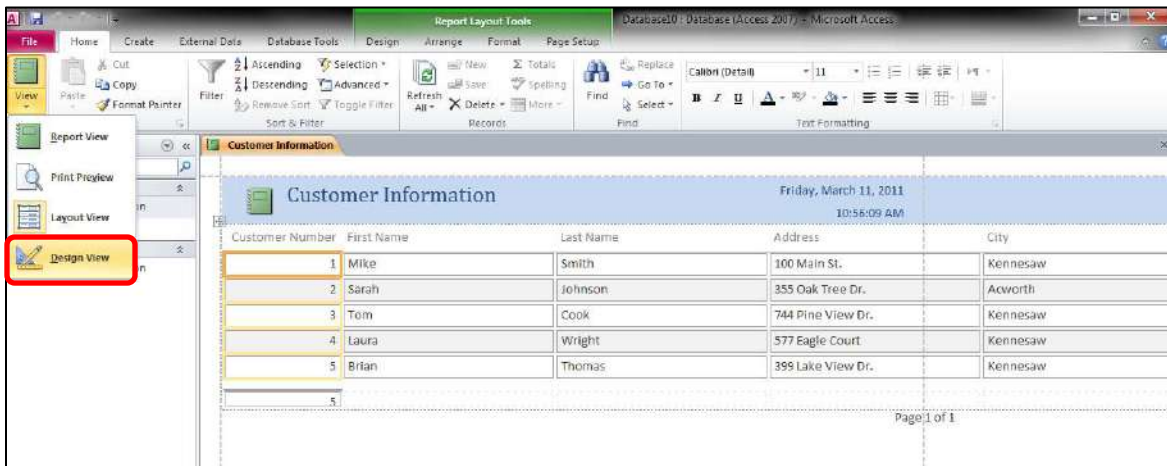


Figure 63 – Design View

- c. You can now make adjustments to the report that was created (see *Figure 64*).

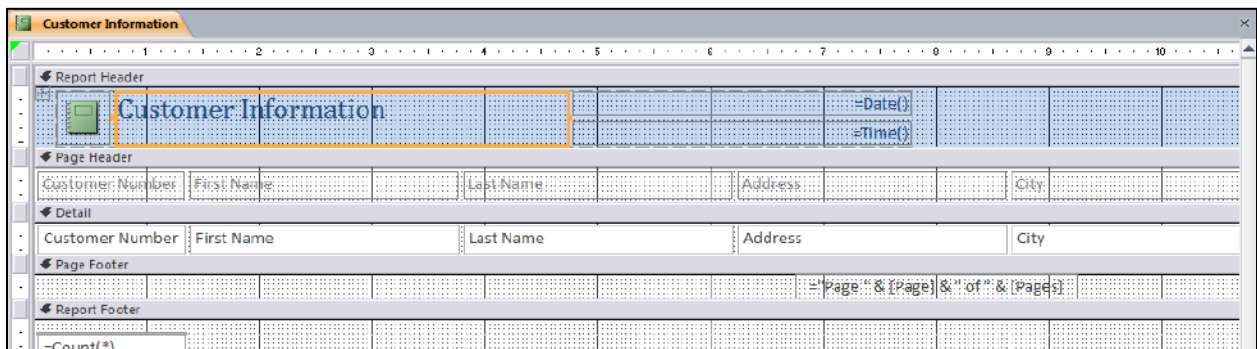


Figure 64 – Design View

Creating *Portrait* and *Landscape* Reports

The following explains how to set the report to either *portrait* or *landscape*.

1. Display the report in the *Design* view (see *Figure 65*).

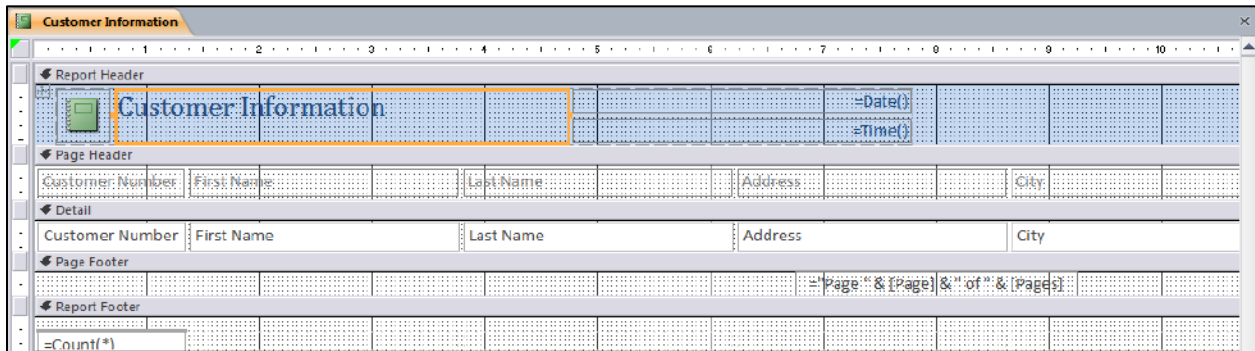


Figure 65 – Design View

2. From the *Page Setup* tab, click either *Portrait* or *Landscape* (see *Figure 66*).

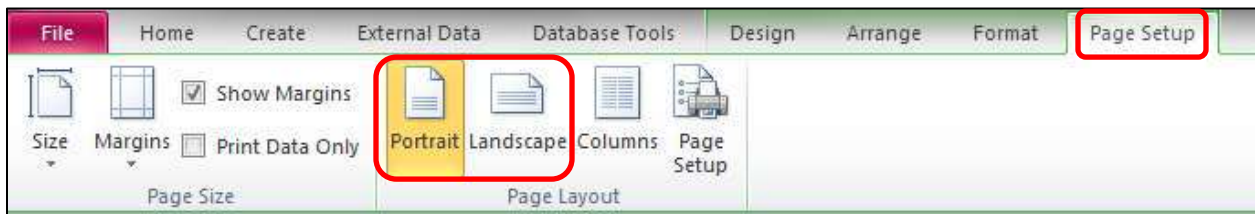


Figure 66 – Design View

Importing an Excel File into Access

Access gives you the ability to import an Excel file into Access. The following explains how to accomplish this task.

1. Create a new Access database file.
2. From the *External Data* tab, click the *Excel* button in the *Import & Link* category (see *Figure 67*).

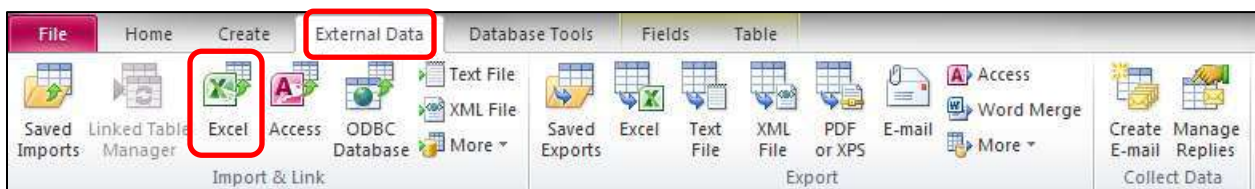


Figure 67 – Importing an Excel File

3. The *Get External Data – Excel Spreadsheet* window will appear (see *Figure 68*).

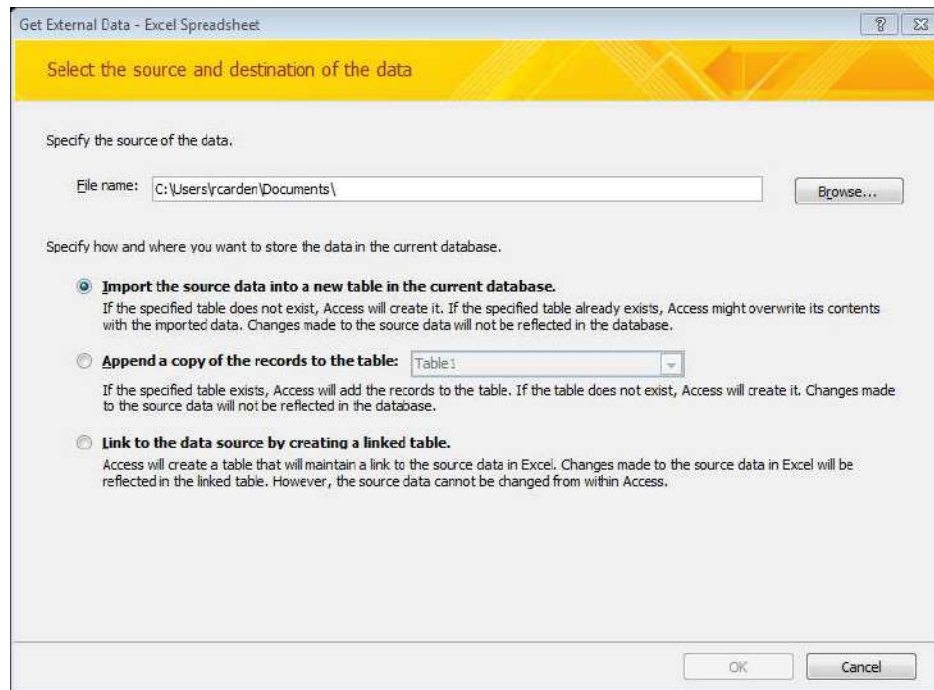


Figure 68 – Importing an Excel File

4. Click the *Browse* button to locate your Excel spreadsheet file and then select the first option available to import your source data into a new table (see *Figure 69*). Then, click the *OK* button.

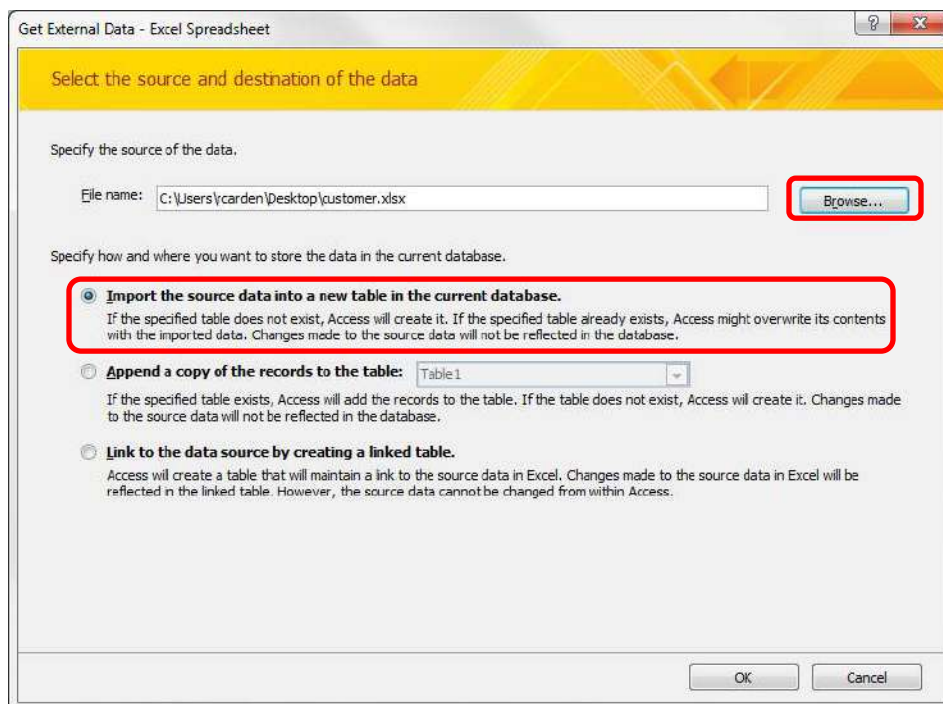


Figure 69 – Importing an Excel File

- Next, select the *Show Worksheets* option (see *Figure 70*) and click the *Next* button.

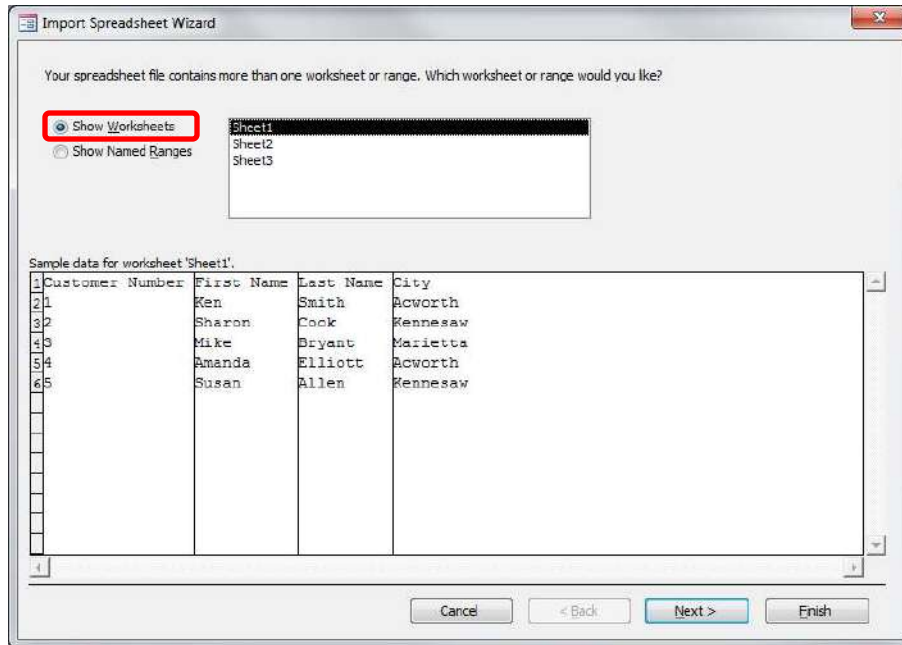


Figure 70 – Importing an Excel File

- If the first row of your spreadsheet contains column headings, place a check-mark in the available box (see *Figure 71*). Then, click the *Next* button.

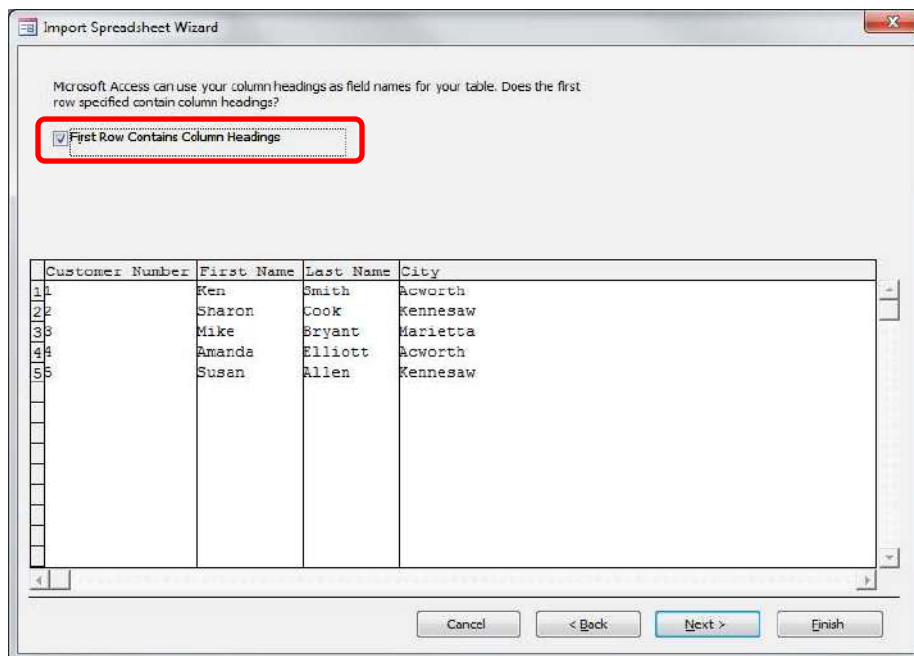


Figure 71 – Importing an Excel File

- For the next option, you can select the different columns and adjust the *Field Name* and *Data Type* for the database (see *Figure 72*). When you are finished, click the *Next* button.

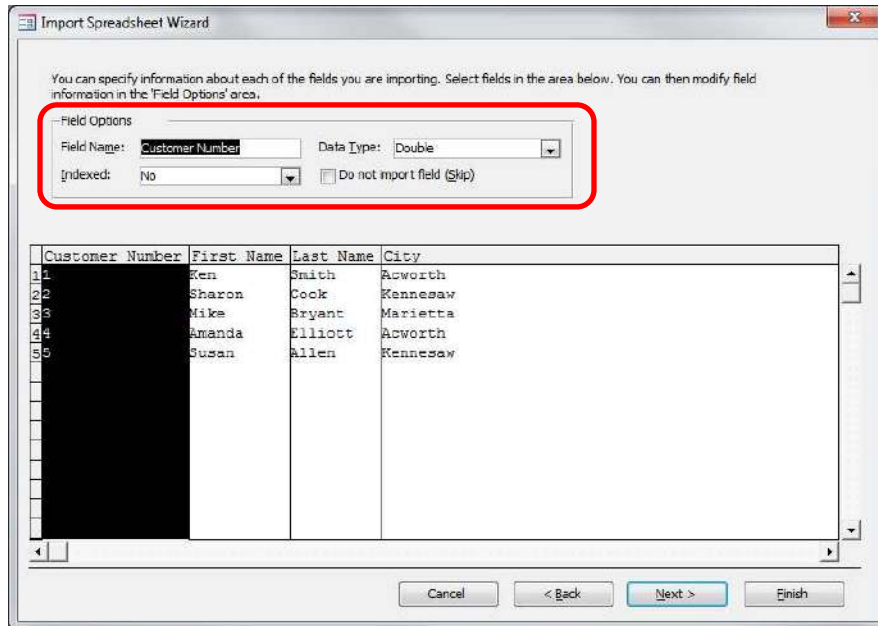


Figure 72 – Importing an Excel File

- Next, determine if you want Access to create a primary key for you, if you want to choose your own primary key from data within the spreadsheet, or if you don't want a primary key (see *Figure 73*). Then, click the *Next* button.

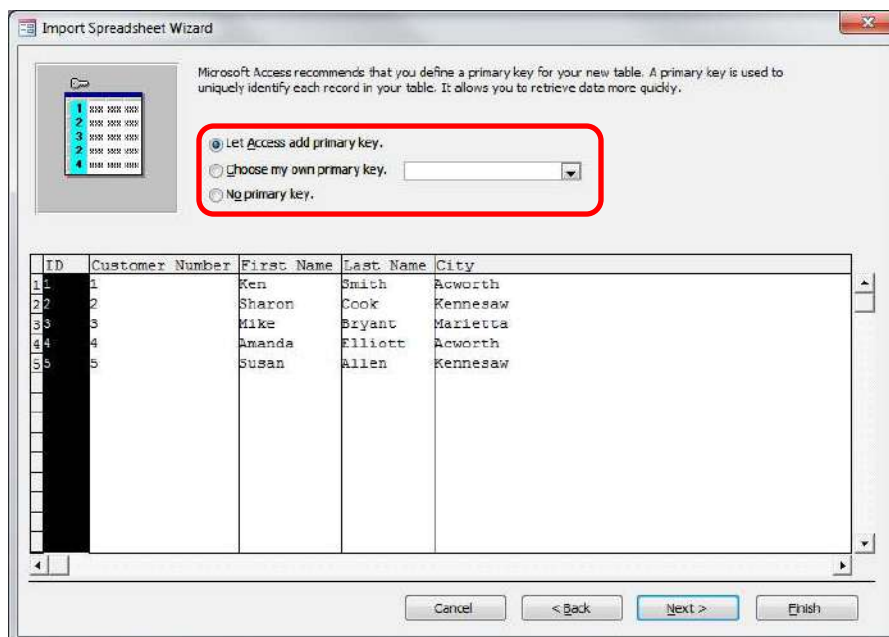


Figure 73 – Importing an Excel File

9. Enter a name for the table that will be created and click the *Finish* button (see *Figure 74*).

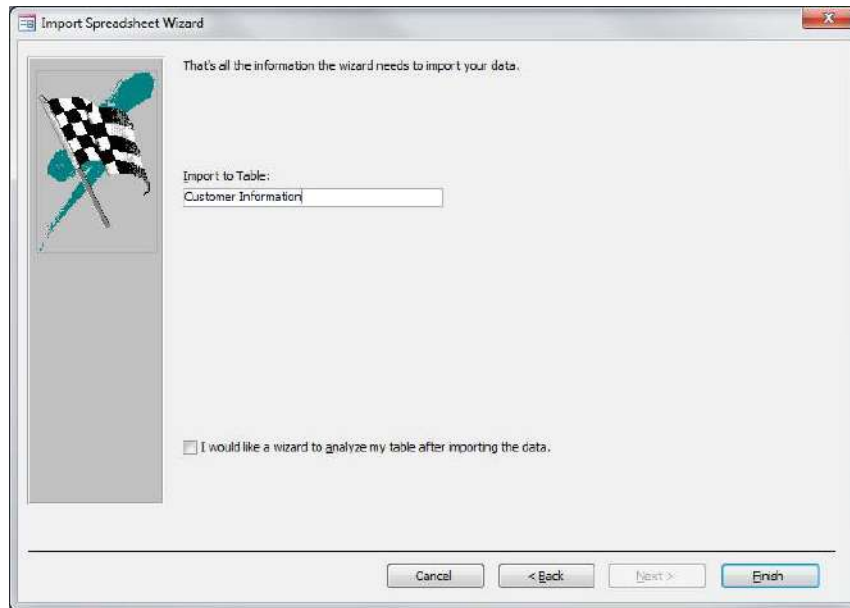


Figure 74 – Importing an Excel File

10. The information in Excel will be imported into Access (see *Figure 75*). At this point, you could import other data from other spreadsheets, create forms, create reports, create queries, etc.

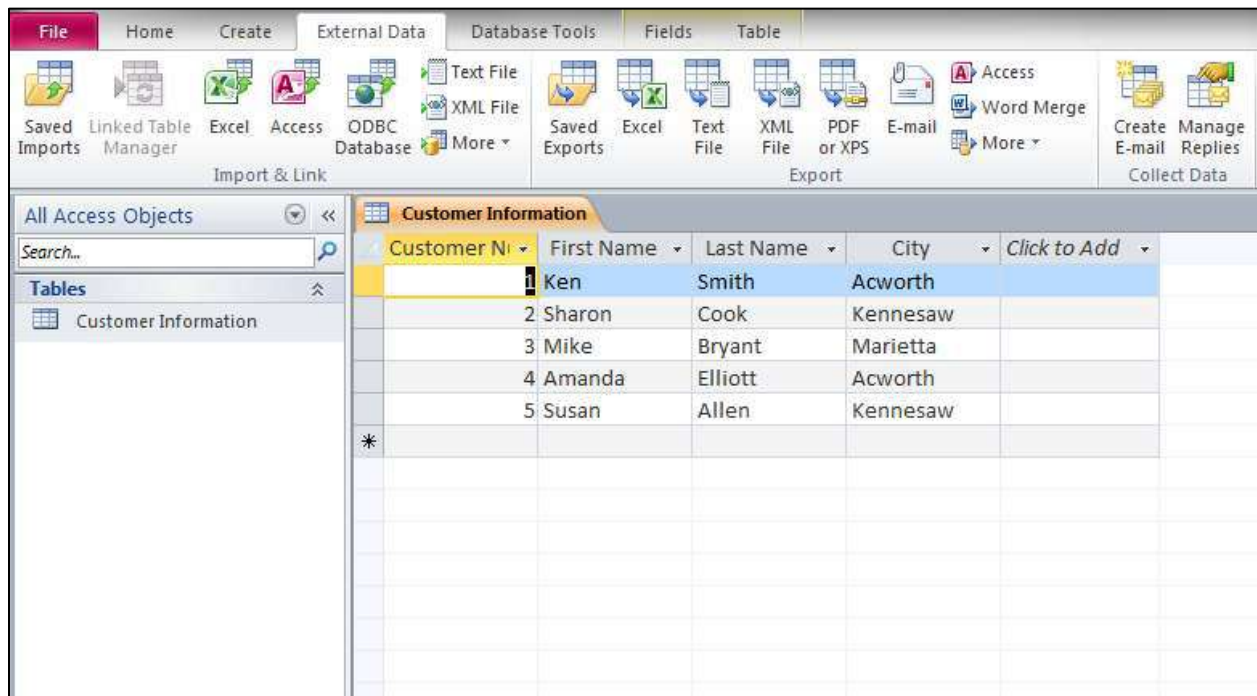


Figure 75 – The Excel File Imported into Access