United States International University-Africa

MIS 6120: Application Domains Of Information Technology

STUDENT LABORATORY MANUAL

Lab 1: Hands-on MIS Application Software Exercise

This exercise is designed to help students understand how a raw file of sales transactions can be analyzed using database software to produce valuable information for managers. The solutions provided here were created using the query wizard and report wizard capabilities of Access. Students can of course create more sophisticated reports if they wish, but much valuable information can be obtained from simple query and reporting functions. The main challenge is to get students to ask the right questions about the information.

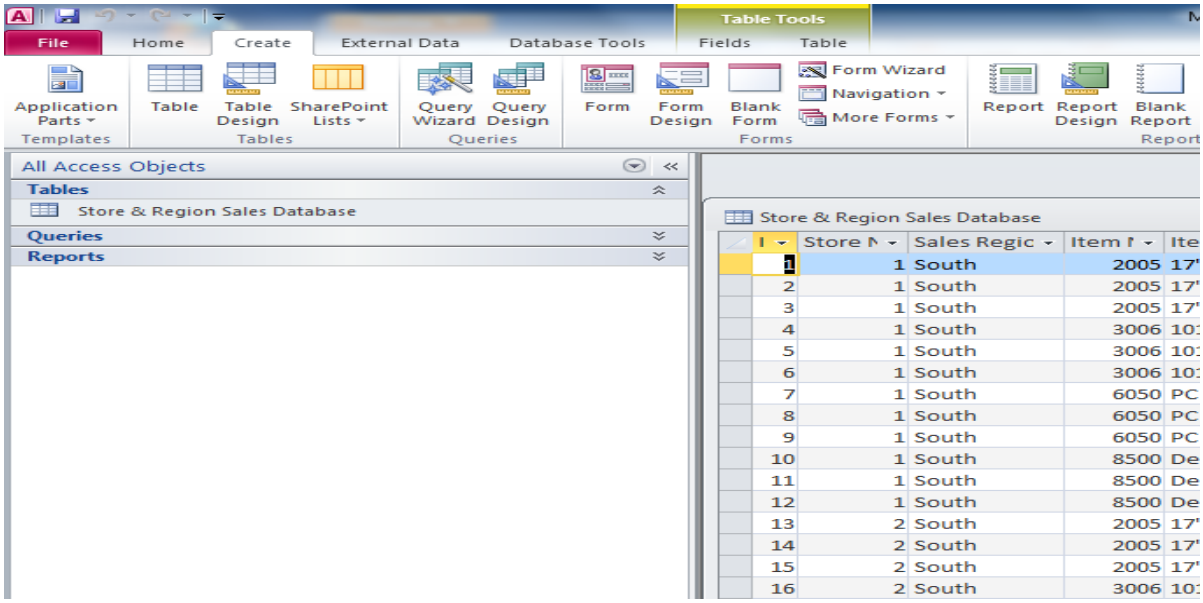
Creating Queries

Using the Store & Region Sales database, we will analyze the records to determine the following:

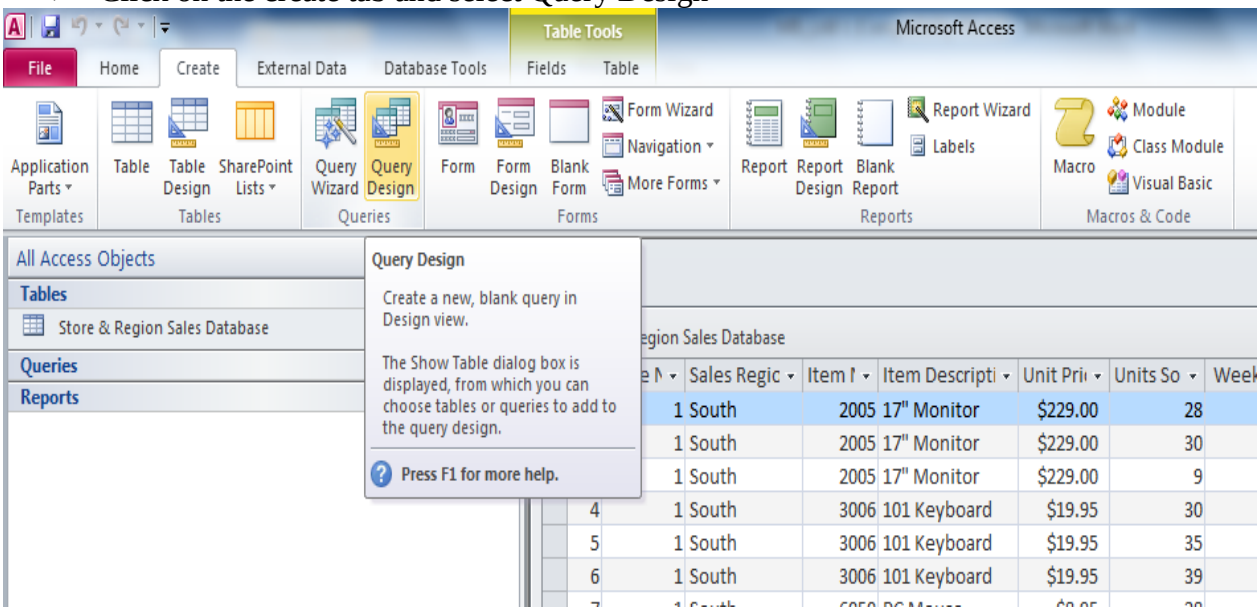
1. Best performing regions by total sales
2. Best performing stores by total sales
3. Best selling products by quantity
4. Best selling products by units sold
5. Best selling products by weekly sales
6. Strongest sales region by product quantity
7. Strongest sales region by product sales
8. Strongest selling periods (by product)
9. Strongest selling periods (by sales region)
10. Strongest selling periods (by store)
11. Strongest stores by product quantity
12. Strongest stores by product sales

TASK 1: Using Design View to Create Queries

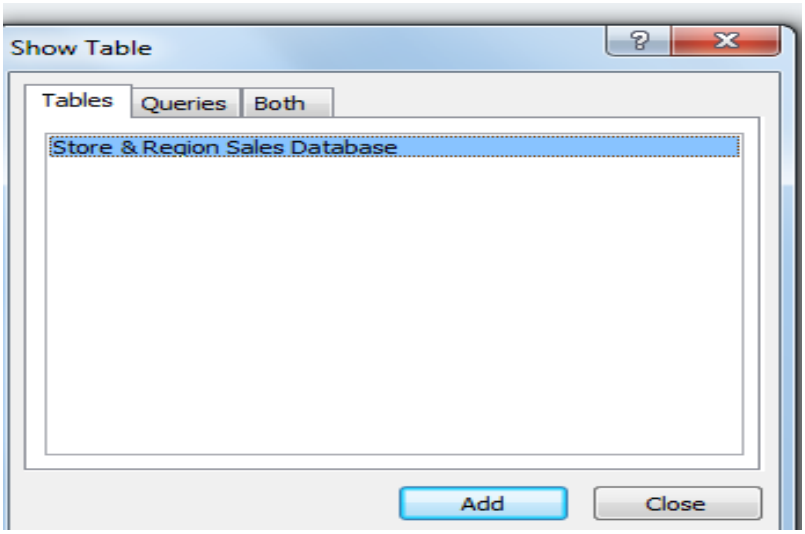
- We start by creating the first queries i.e. query for best performing regions by total sales. Select the table



- Click on the create tab and select Query Design

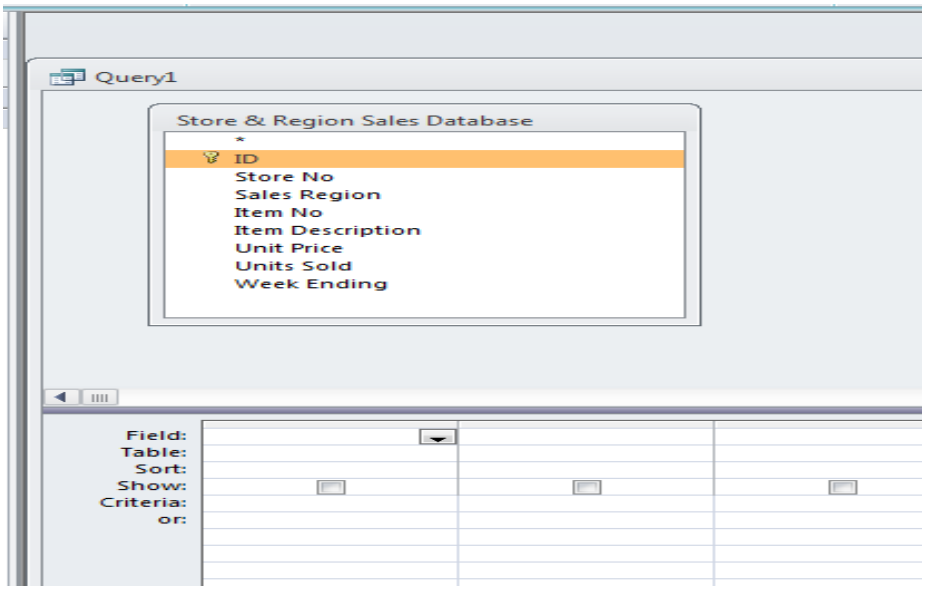


Since we are creating calculated fields the design view is necesssary so as to build the queries.

The following dialogue appears. 

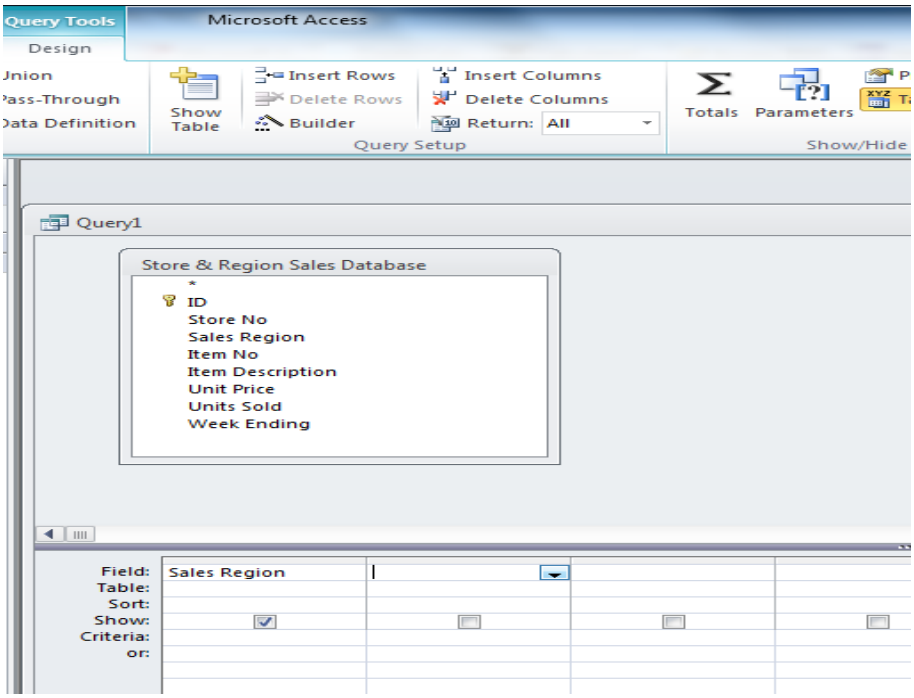
- Select the Store & Region Sales Table click on add then close the dialogue.

The design view now should look as below.

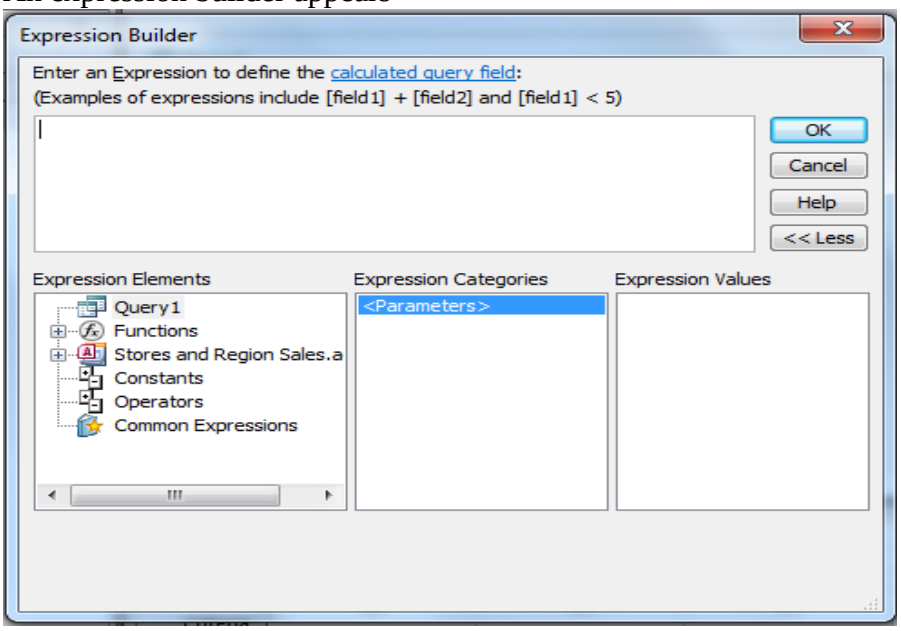


Since the query is to find the best performing regions, the Sales Region field and the Total Sales per Region (calculated field) will be used.

- On the first field column select the Sales Region.
- Then select the next empty field.
- On the menu ribbon click on the builder.

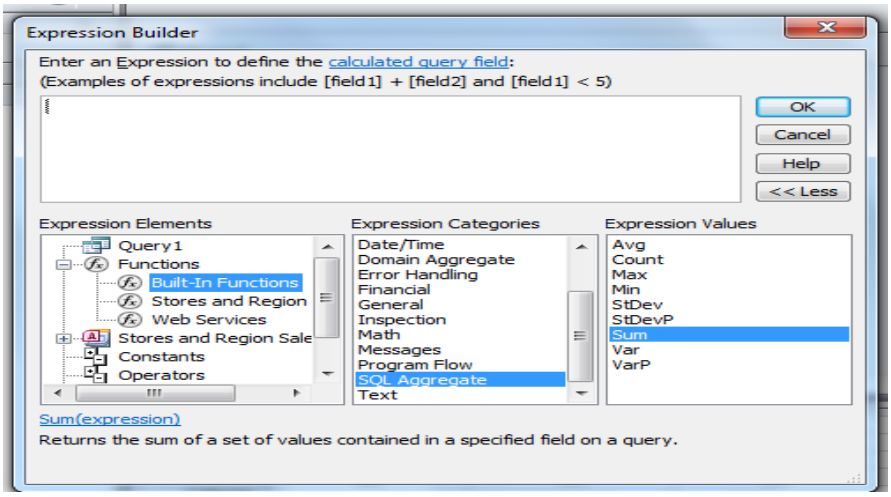


An expression builder appears

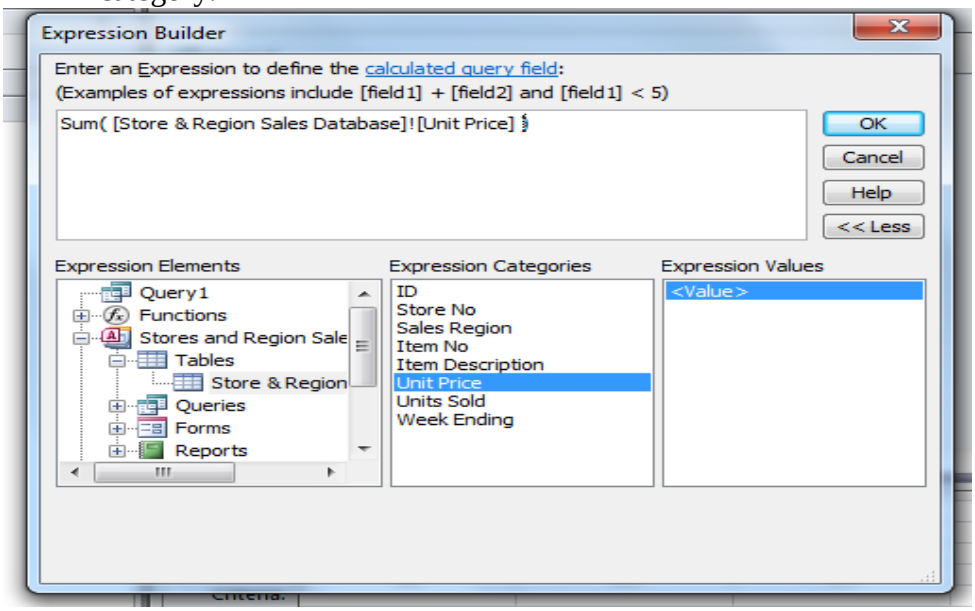


To get the total weekly sales the SUM function is used.

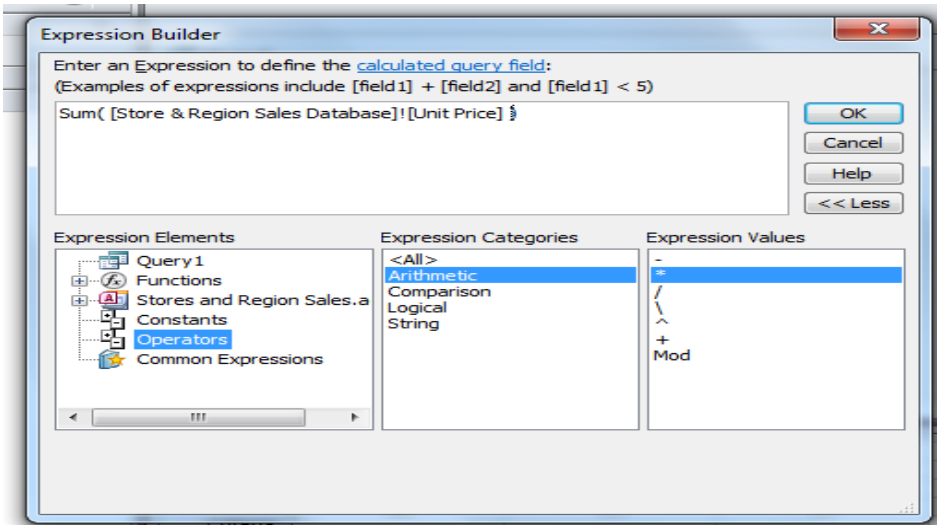
- We start the expression with the built in sum function.
- Then select the SQL Aggregate in the Expression Category.
- In the expression values pick the SUM.



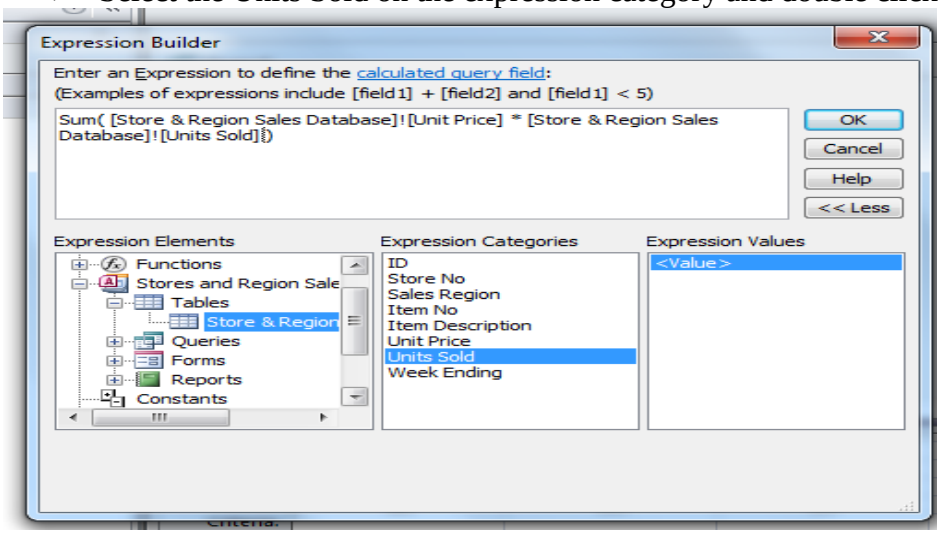
- Clear the contents between the SUM brackets.
- Next step is to multiply the Unit Price and the Units Sold.
- Expand the Store and Region Sales Database.
- Expand the Store & Region Sales table and double click on the Unit price on the expression category.



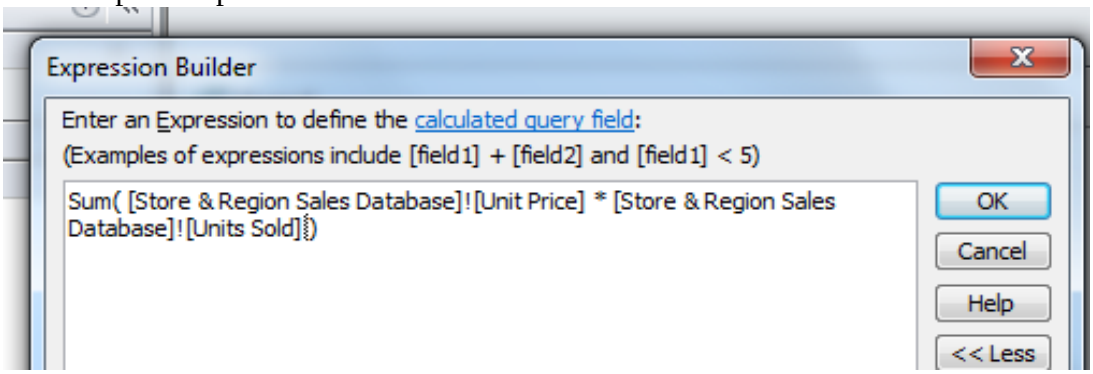
- Scroll down the Expression elements and select the operators.
- On the expression category select Arithmetic then double click on the * expression value.



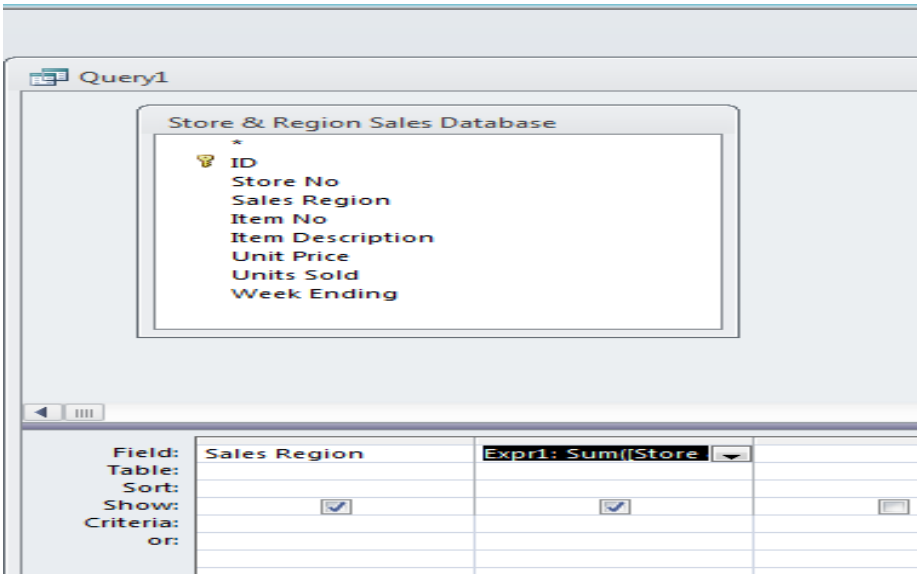
- Scroll up to the Store and Region Sales database on the Expression elements.
- Select the Units Sold on the expression category and double click on it.



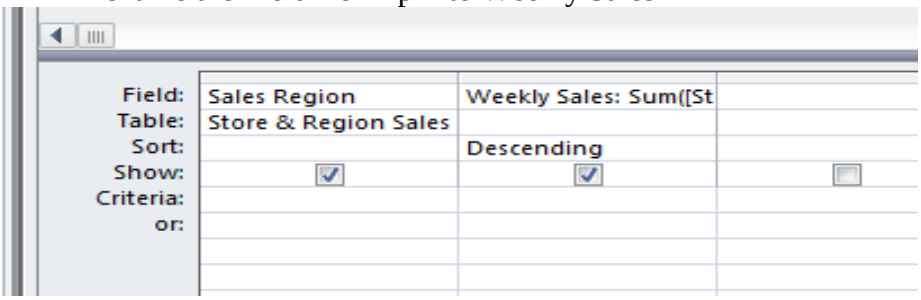
The complete expression should be similar to the below screeen shot



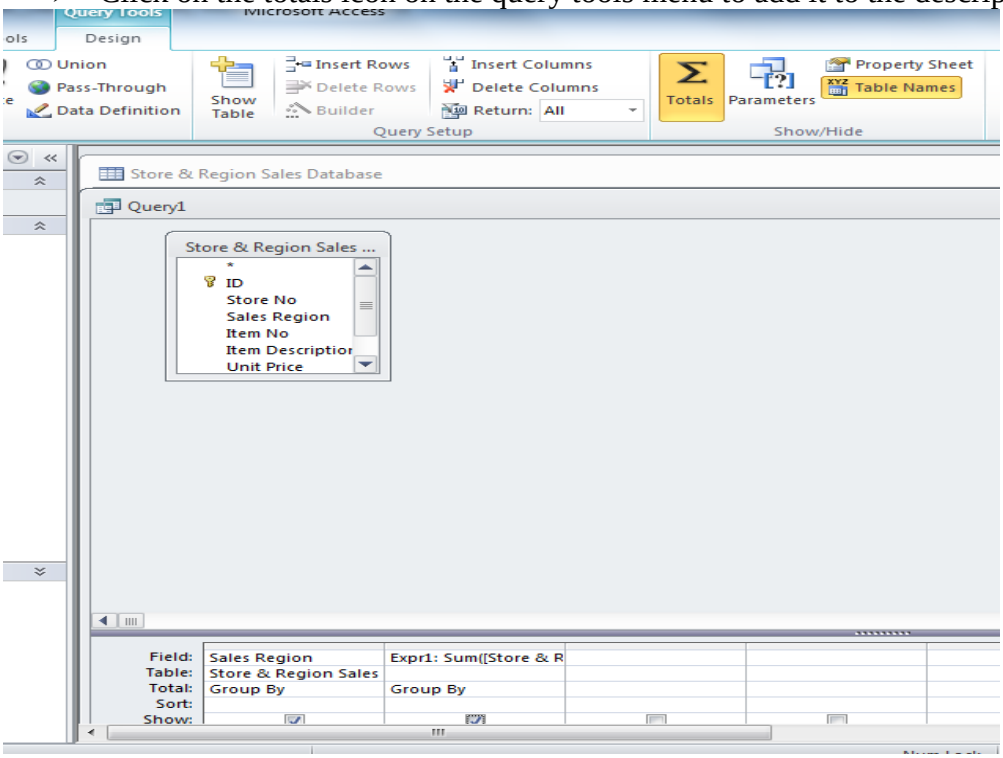
- Once complete click on OK button.



- Rename the Field fro Expr1 to Weekly Sales

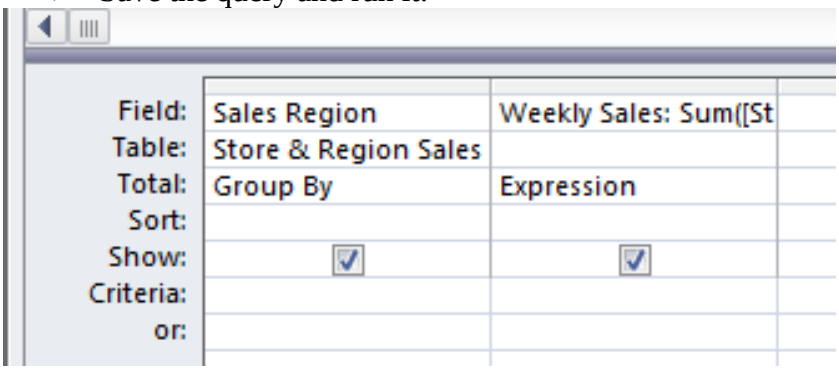


- Click on the totals icon on the query tools menu to add it to the description elements.

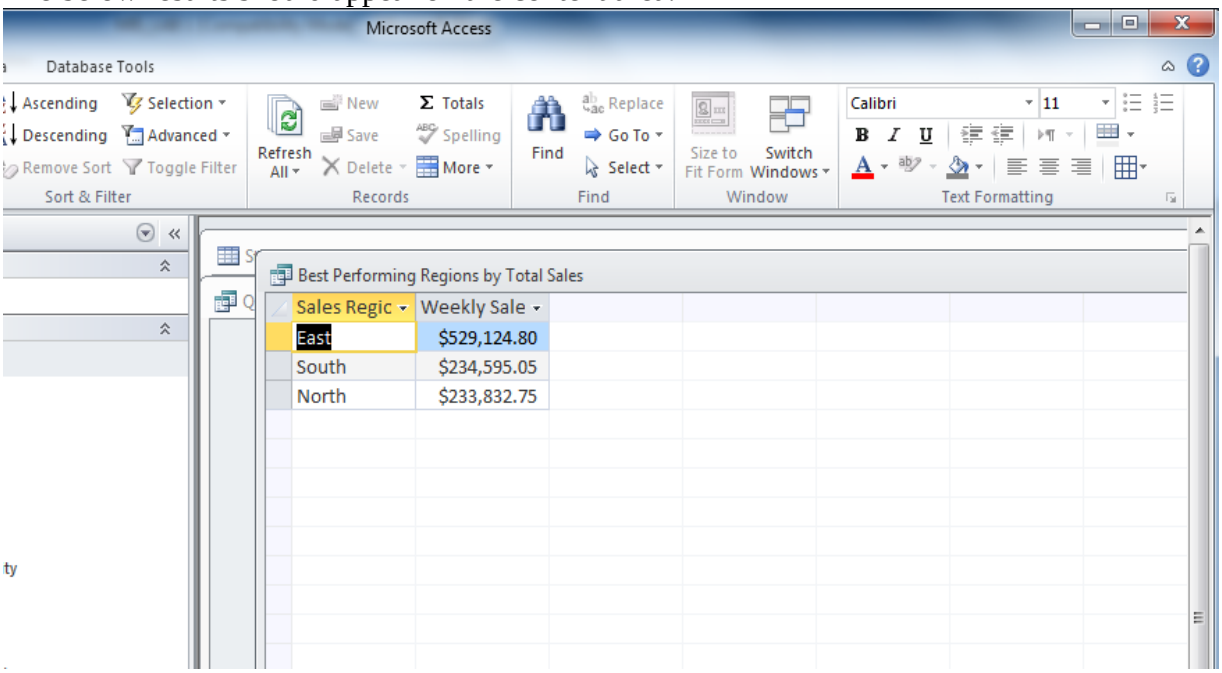


- On the total options, change the descriptions as follows; On the Regions field change the description to Group by. On the Weekly Sales Field change the description to expression.
- Sort the weekly sales field in descending order.

- Save the query and run it.



The below results should appear on the content area.



The rest of the queries 2 to 12 can be done using the same format involving calculated fields.

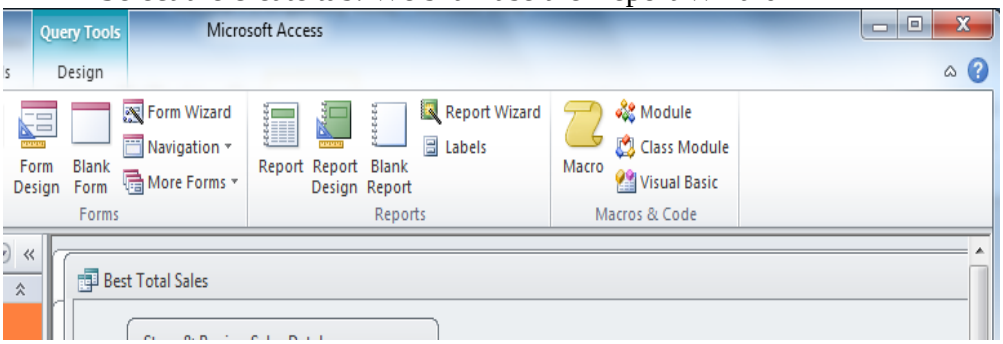
Task 2: Creating Reports

The reports to be created are based on the queries created in the above exercise. This will be a continuation to produce reports based on those queries.
The reports we will create in this exercise are as listed below:

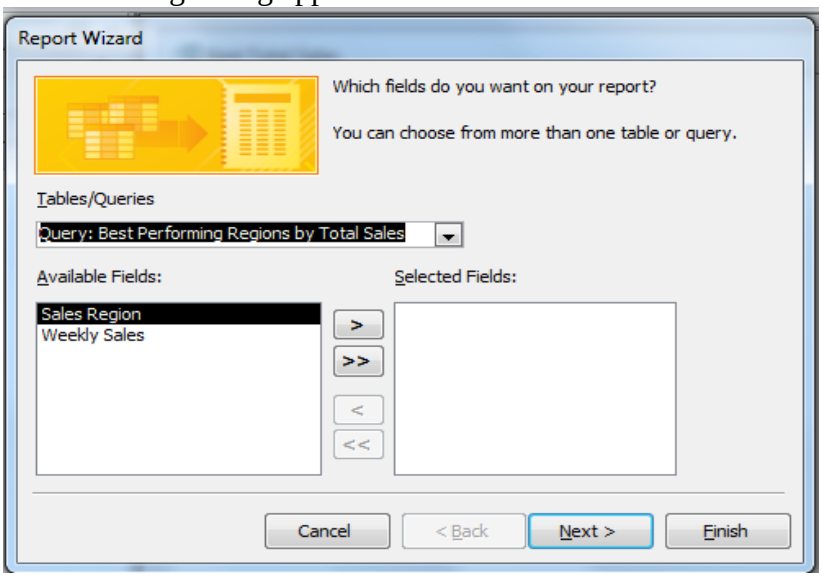
1. Best performing regions by total sales
2. Best performing stores by total sales
3. Best selling products by quantity
4. Best selling products by units sold
5. Best selling products by weekly sales
6. Strongest sales region by product quantity
7. Strongest sales region by product sales
8. Strongest selling periods (by product)
9. Strongest selling periods (by sales region)
10. Strongest selling periods (by store)

11. Strongest stores by product quantity
12. Strongest stores by product sales

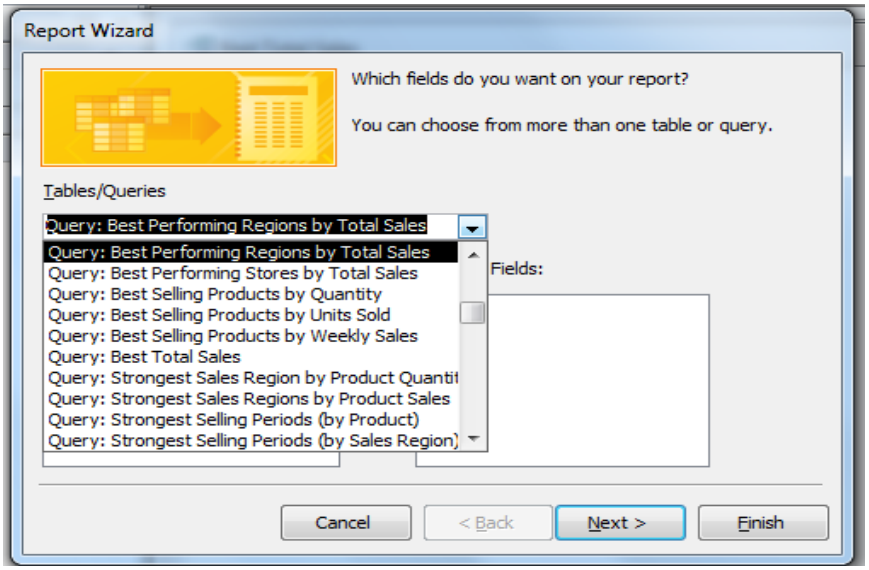
- Select the Store and Region Sales table.
- Select the create tab. We shall use the Report Wizard



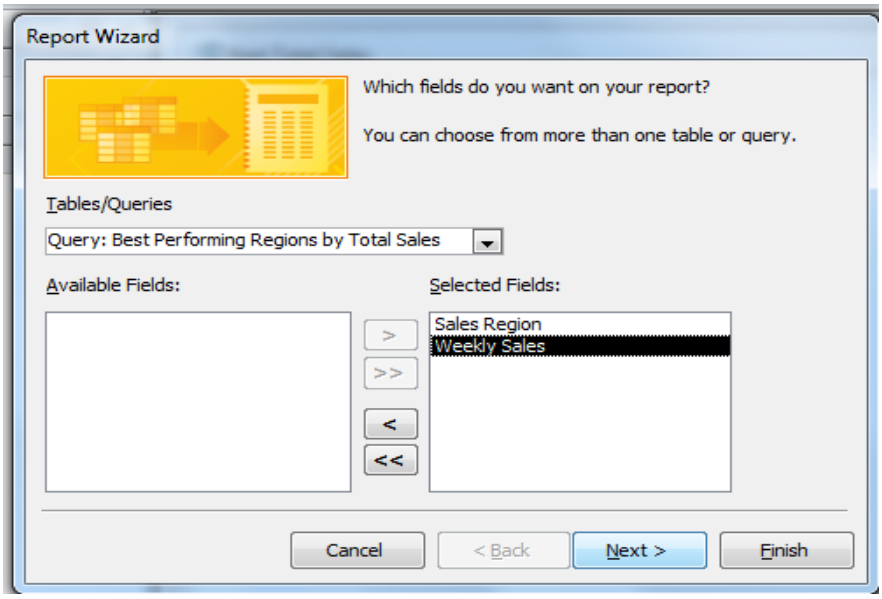
The following dialog appears.



- Under the Table/Queries, select the query to create a report from. In this case we select the Best Pereforming Regions by Total Sales query.

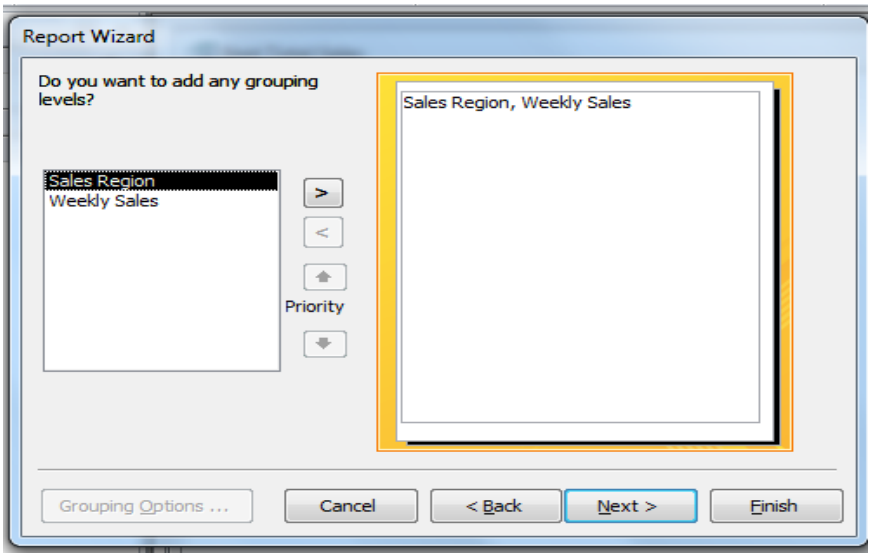


- Drag all the available fileds to the Selected field. i.e Sales Region and Weekly Sales and click next.

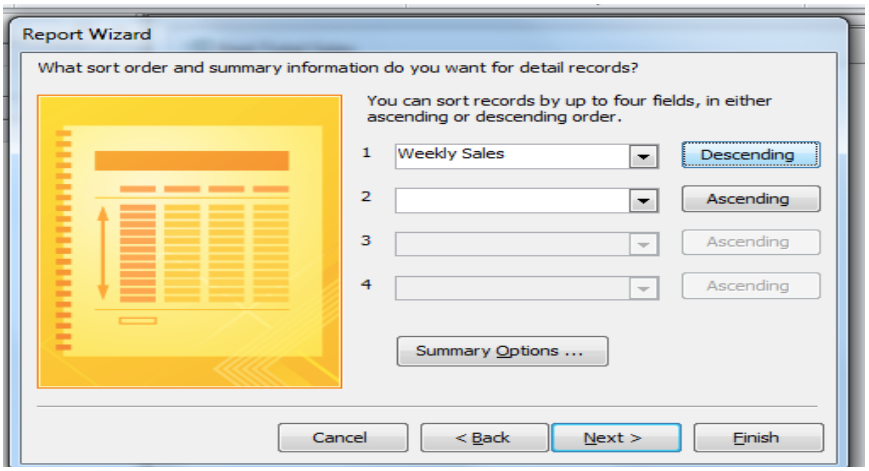


You can add grouping levels to the report. In this case we do not need the grouping levels.

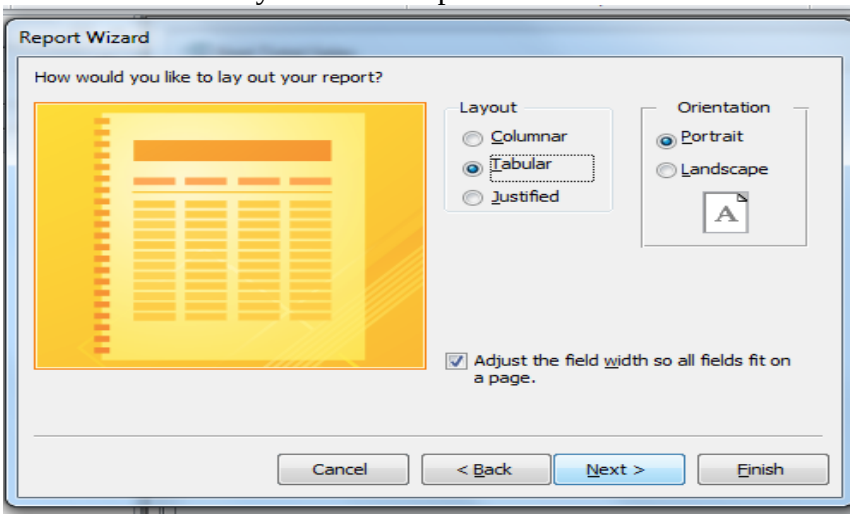
- Click Next.



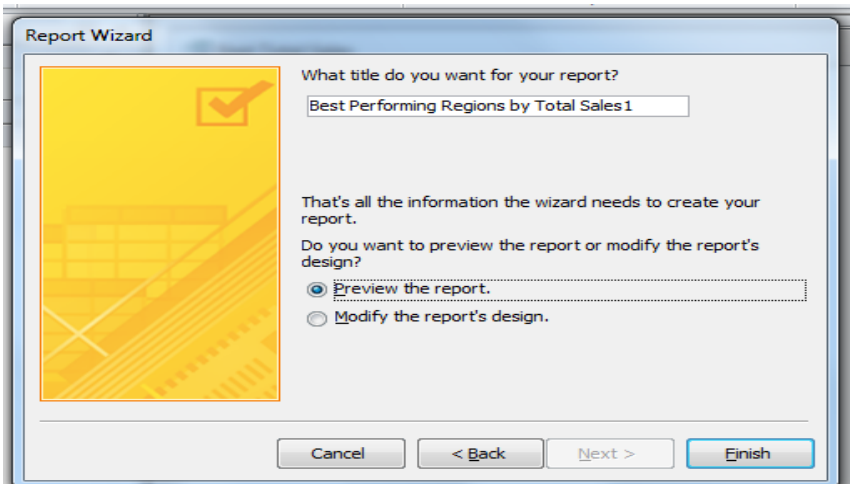
- Sort the Weekly Sales field in descending order and Click next



- Select the layout for the report and click next



- Rename the report to Best Pereforming Regions by Total Sales Report



- Complete the wizard and the report should look something similar to the below sample.

Best Performing Regions by Total Sales

Weekly Sales	Sales Region
$529,124.80	East
$234,595.05	South
$233,832.75	North

The rest of the Reportss 2 to 12 can be done using the same format involving calculated fields.