

# Highline College

## Busn 216: Computer Applications for Business

### M365 Video #14: Building/Creating Queries in Access

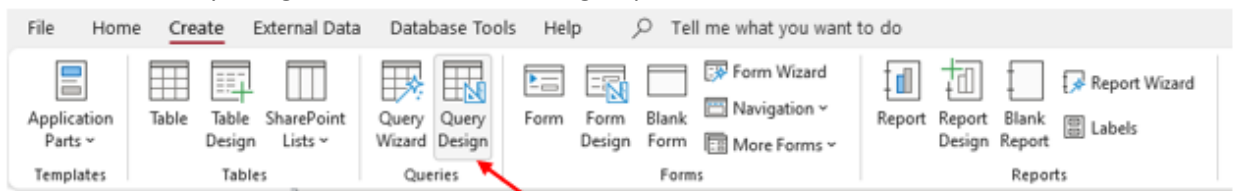
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This handout will illustrate the steps of converting the data that we created in our M365 Video 13 into useful information, and we will do that by creating Queries.

1. Data Analysis: Raw Data into Useful Information
2. Query: Ask a question about the raw data stored in a database. The answer is the useful information used for decision making.
  - a. Queries we will create in this video:
    - i. Products Sell Price
    - ii. Products from Riverside Station
    - iii. Gross Profit
    - iv. Inventory
    - v. Inventory Value
    - vi. Inventory to Re-order
    - vii. Average Cost Price
    - viii. Average Cost Price Grouped by Supplier
    - ix. Min & Max Cost Price Grouped by Supplier
    - x. Average Sell Price
    - xi. Average Sell Price Grouped by Customer
    - xii. Min & Max Sell Price Grouped by Customer
    - xiii. Sell Price >20 AND <40
    - xiv. Products Description Contains \*Bouquet\*
    - xv. Supplier Store Code RS or AS
    - xvi. Supplier Record by Parameter

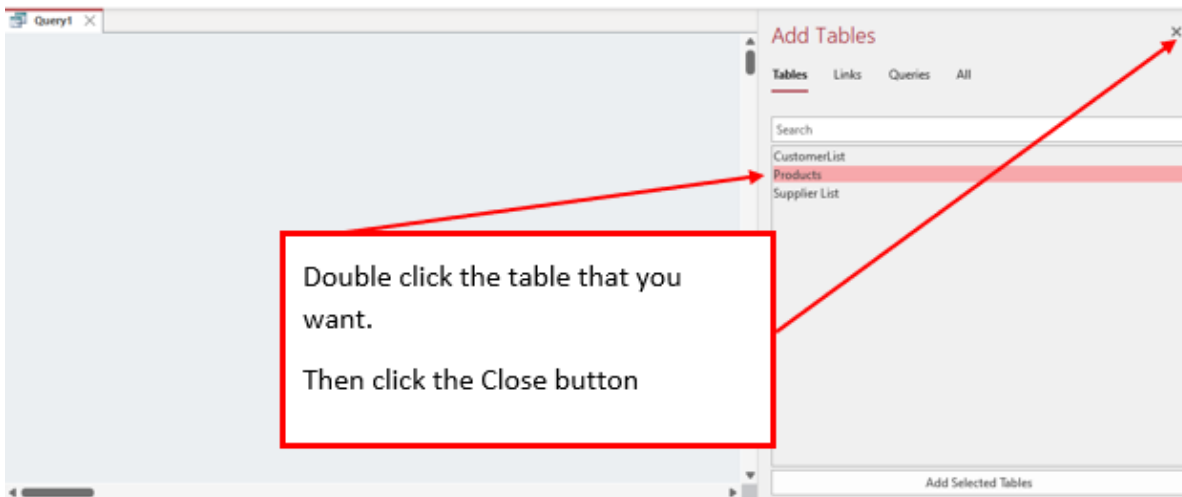
3. Steps to create a query:

- a. Click on the Query Design button in the Queries group in Create Ribbon Tab.

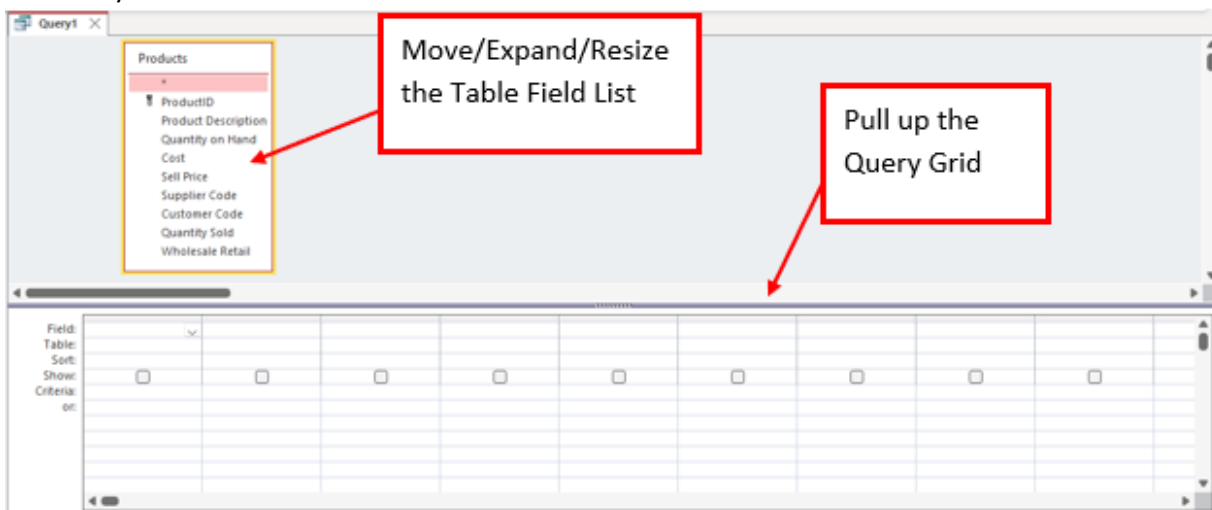


Click Query Design button in the Queries group in the Create Ribbon Tab

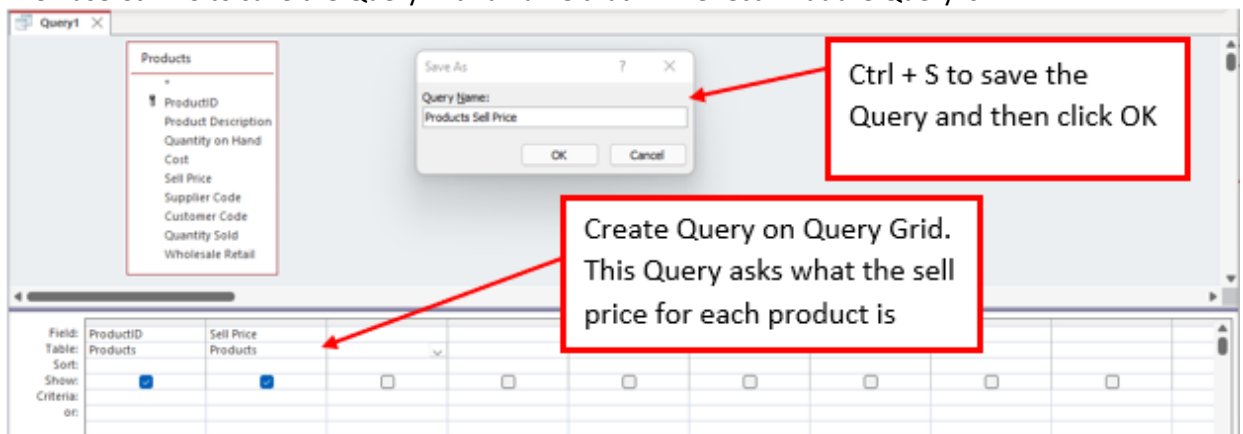
- b. From the Add Tables Pane double click the tables that you want to ask the question of and then click the close button to close the Add Tables pane. If you accidentally add a wrong table, right click on the table, and click Remove Table.



- c. You can move and/or expand the Table Field List to resize and view all fields and then pull up the Query Grid.

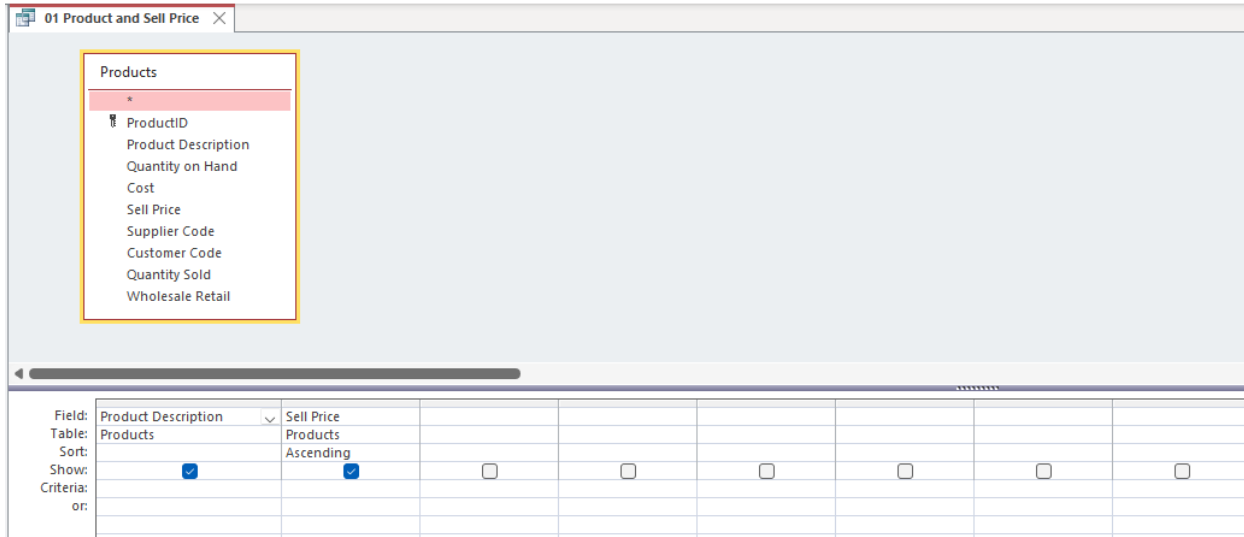


- d. Create the Query in the Query Grid by double clicking the Field to place in the Query grid or by dragging the Field List to the Query Grid.  
e. Then use Ctrl + S to save the Query with a name that will reflect what the Query is.

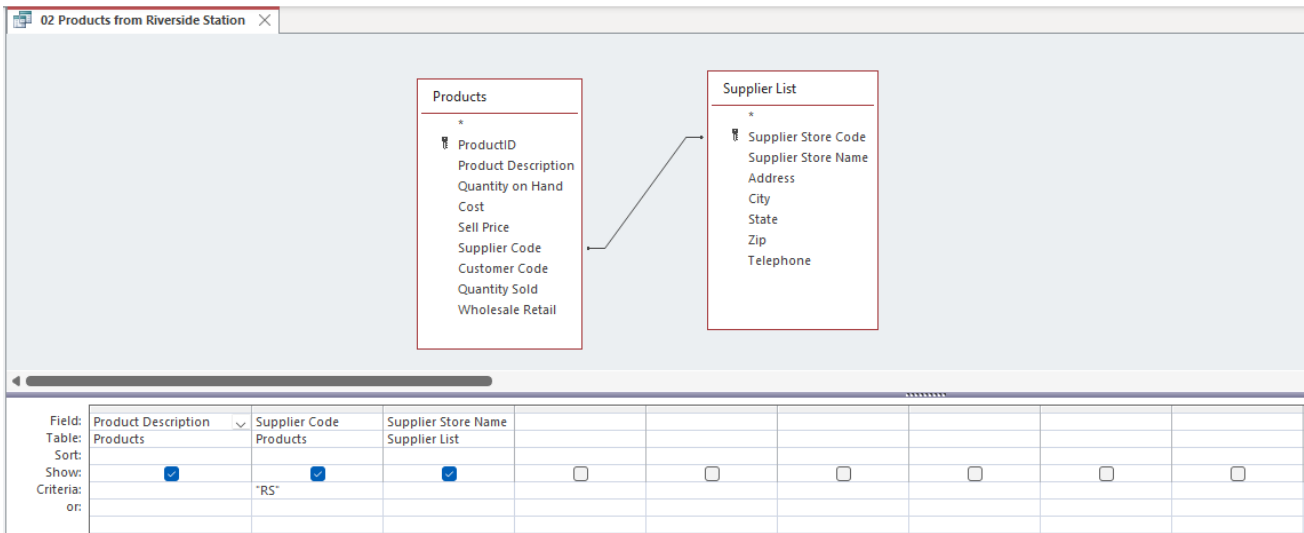


**These are all the Queries that we will create, including picture of each Query:**

- 1) Question: Query – Show the Description and the sell price for each product, sort by sell price.
  - a) Name of Query: Product and Sell Price
  - b) Show Products Table
  - c) Show Fields:
    - i) Product Description
    - ii) Sell Price
  - d) Sort: Ascending on Sell Price field

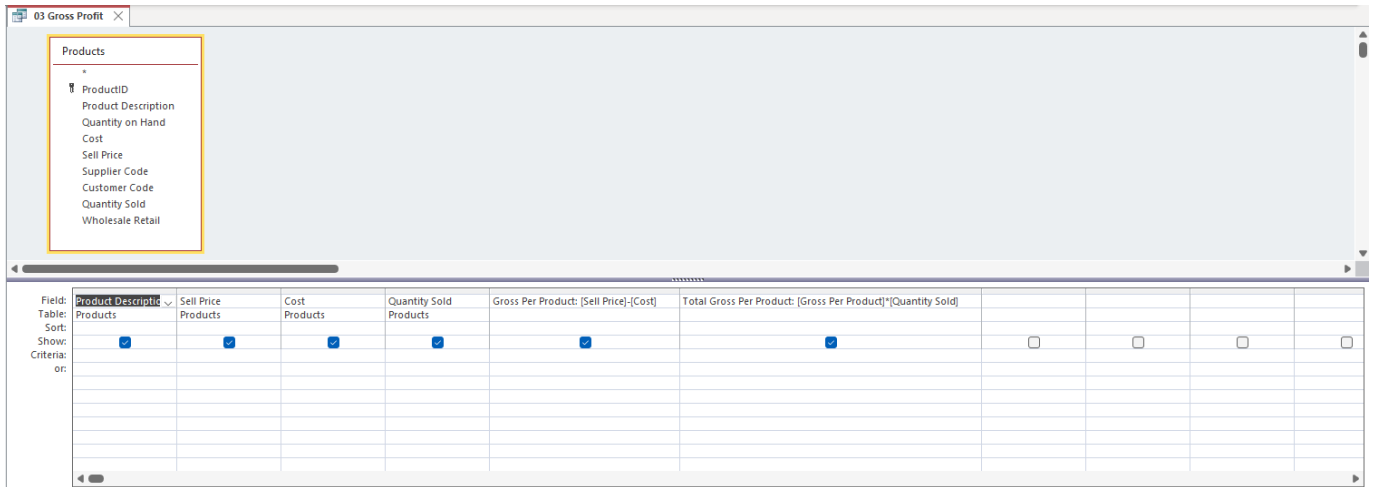


- 2) Question: Show Products from Riverside Station Store
  - a) Name of Query: Products from Riverside Station
  - b) Show Products Table and Supplier List Table
  - c) Show Fields:
    - i) From Products Table:
      - (1) Products Description
      - (2) Supplier Code
    - ii) From Supplier List Table:
      - (1) Supplier Store Name



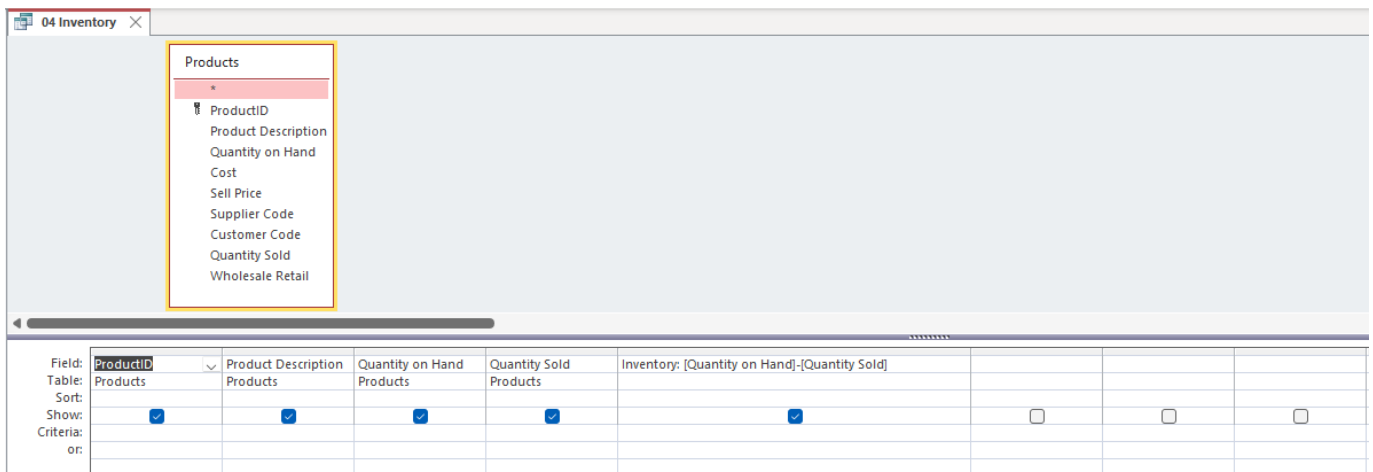
3) Question: Calculate the Gross Profit

- a) Name of Query: Gross Profit
- b) Show Products Table
- c) Show Fields:
  - i) Products Description
  - ii) Cost
  - iii) Sell Price
  - iv) Quantity Sold
- Calculated Fields:
  - v) Gross Per Product: [Sell Price]-[Cost]
  - vi) Total Gross Per Product: [Gross Per Product]\*[Quantity Sold]

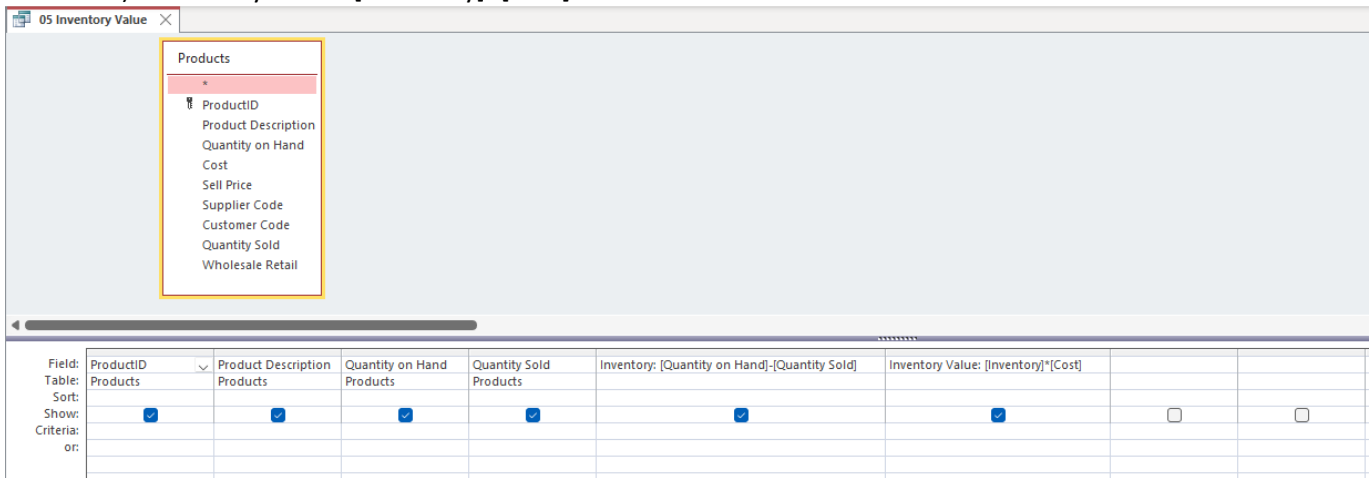


4) Question: Calculate the Inventory

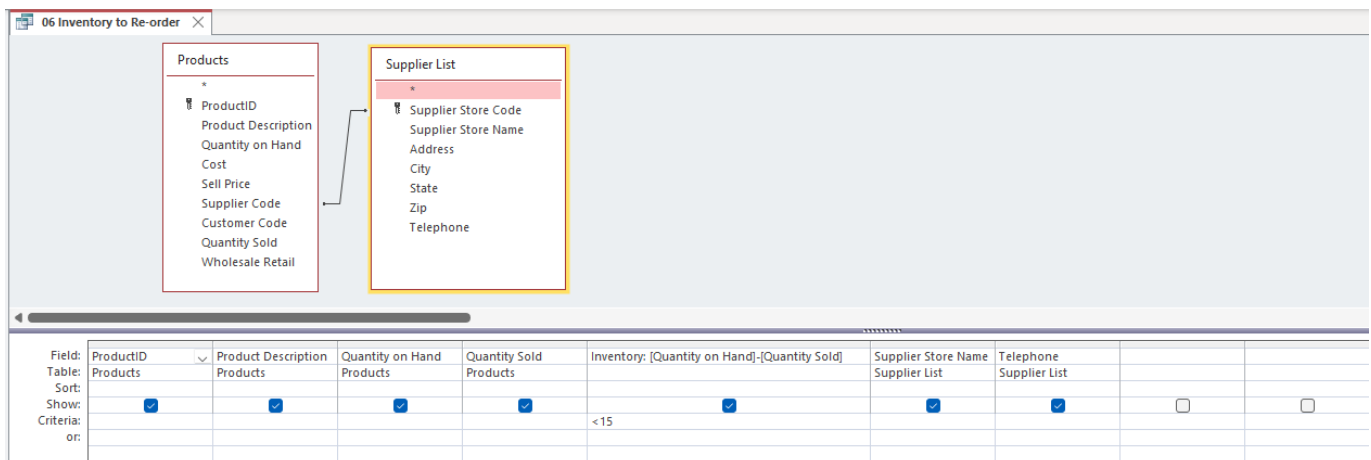
- a) Name of Query: Inventory
- b) Show Products Table
- c) Show Fields:
  - i) ProductsID
  - ii) Products Description
  - iii) Quantity on Hand
  - iv) Quantity Sold
- Calculated Field:
  - v) Inventory: [Quantity on Hand]-[Quantity Sold]



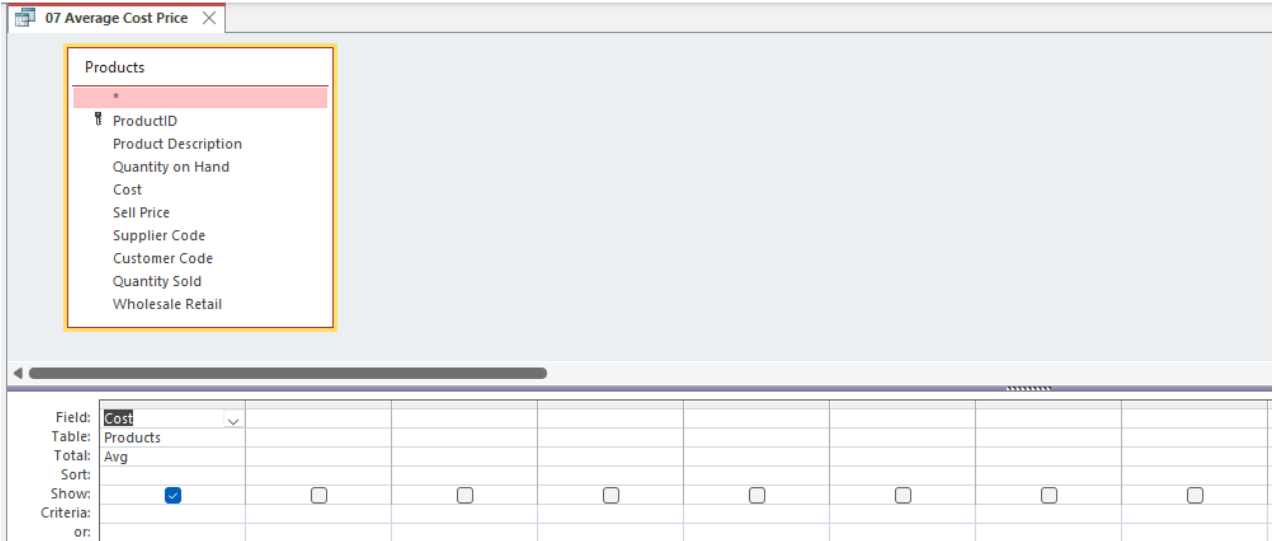
- 5) Question: Calculate the Inventory Value
- Name of Query: Inventory Value
  - Show Products Table
  - Show Fields:
    - ProductID
    - Products Description
    - Quantity on Hand
    - Quantity Sold
 Calculated Field:
    - Inventory: [Quantity on Hand]-[Quantity Sold]
    - Inventory Value: [Inventory]\*[Cost]



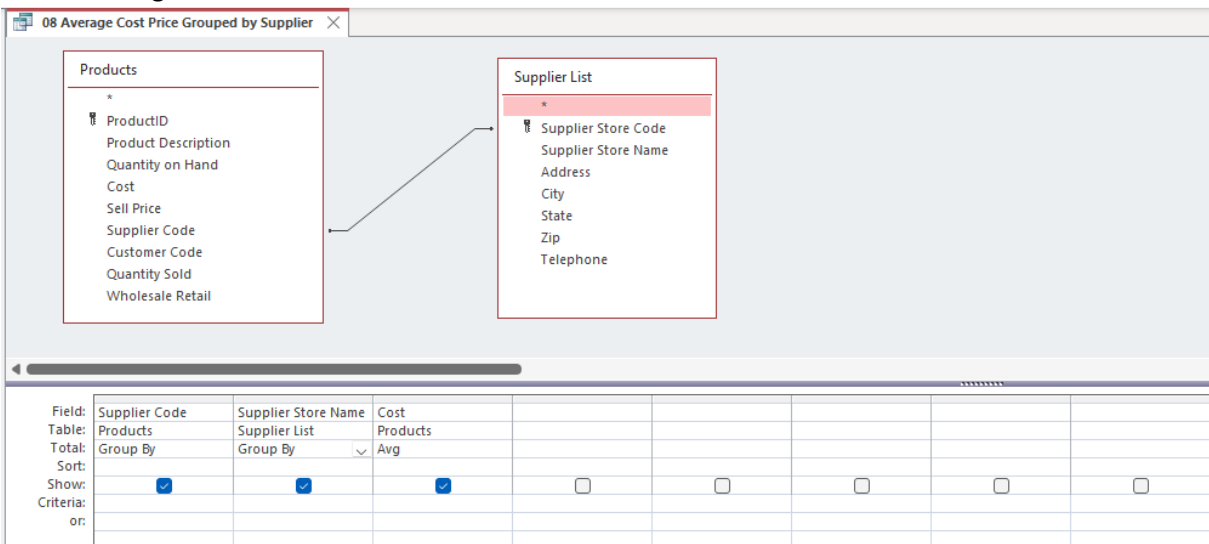
- 6) Question: Show supplier store name and phone for the products that have On Hand less than 15
- Query Name: Inventory to Re-order
  - Show Products Table and Supplier List Table
  - Show Fields:
    - ProductID
    - Product Description
    - Quantity on Hand
    - Quantity Sold
    - Supplier Store Name
    - Telephone
 Calculated Field:
    - Inventory: [Quantity on Hand]-[Quantity Sold]



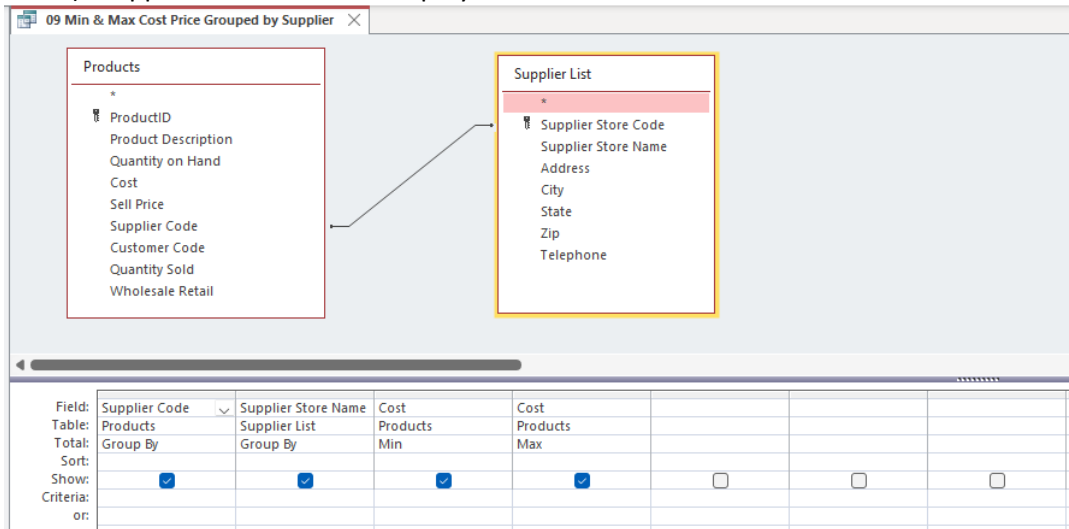
- 7) Question: Calculate the average Cost Price
- Name of Query: Average Cost Price
  - Show Products Table
  - Show Fields:
    - Cost
  - Totals Row:
    - Cost: Avg function
  - Note:** You must right-click Query Grid to show the Totals Row



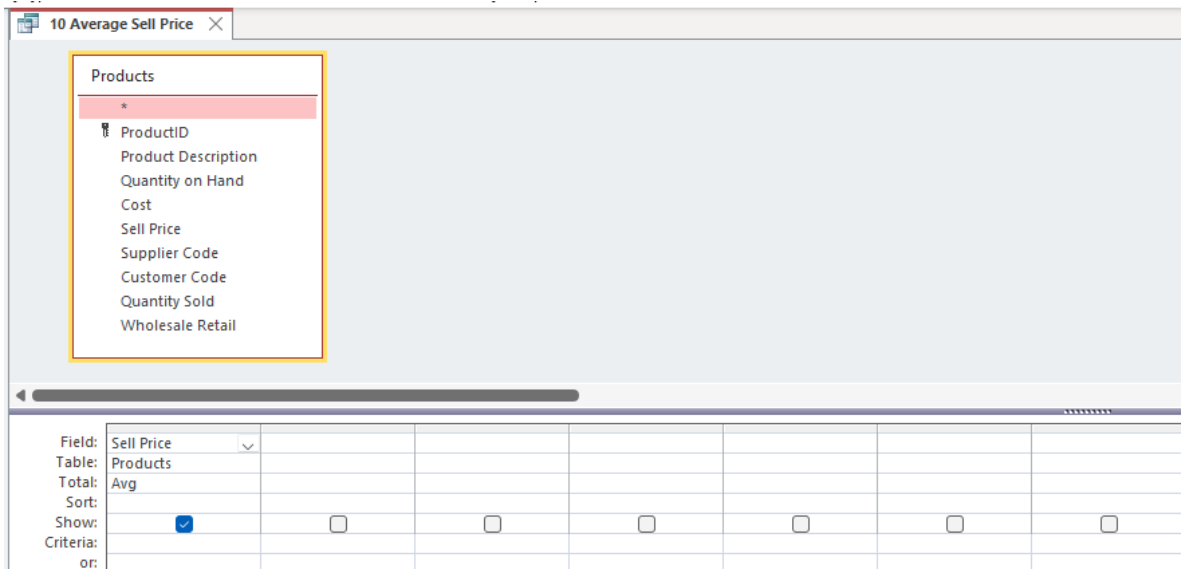
- 8) Question: Calculate the average Cost Price for each Supplier
- Name of Query: Average Cost Price Grouped by Supplier
  - Show Products Table and Supplier List Table
  - Show Fields:
    - Supplier Code
    - Supplier Store Name
    - Cost
  - Total Rows
    - Cost: Avg function
    - Supplier Code: Group By
    - Supplier Store Name: Group By
  - Note:** "Group By" is a Database Term which means to group the records together by a condition and then do something with the records like calculation.



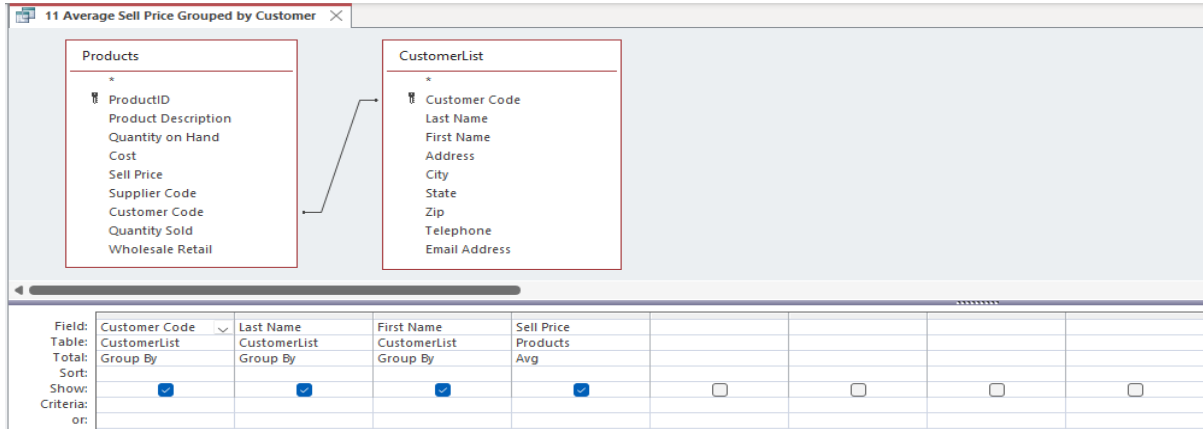
- 9) Question: Calculate the Min and Max Cost for each Supplier
- Name of Query: Min & Max Cost Price Grouped by Supplier
  - Show Products Table and Supplier List Table
  - Show Fields:
    - Supplier Code
    - Supplier Store Name
    - Cost
  - Total Rows:
    - Cost: Min function
    - Cost: Max function
    - Supplier Code: Group By
    - Supplier Store Name: Group By



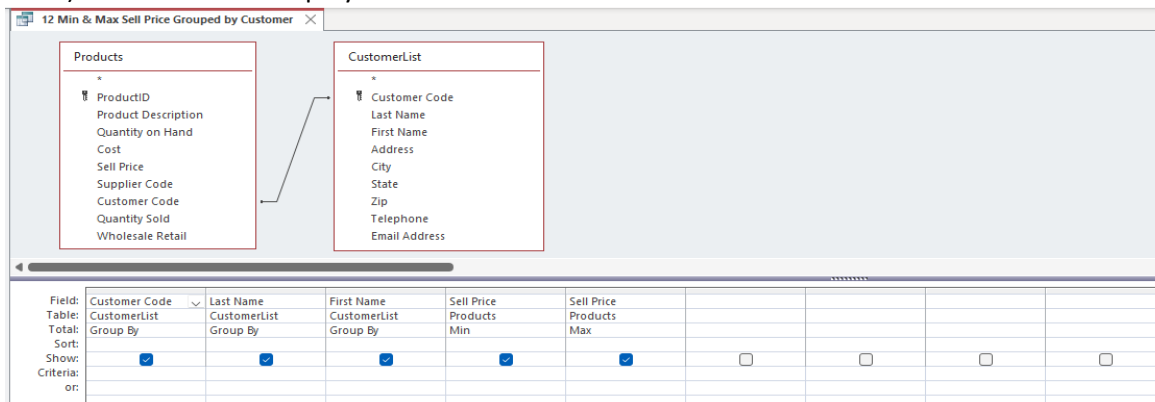
- 10) Question: Calculate the average Sell Price
- Name of Query: Average Sell Price
  - Show Products Table
  - Show Fields:
    - Sell Price
  - Totals Row:
    - Sell Price: Avg function



- 11) Question: Calculate the average Sell Price to each customer
- Name of Query: Average Sell Price Grouped by Customer
  - Show Products Table and CustomerList Table
  - Show Fields:
    - Customer Code
    - Last Name
    - First Name
    - Sell Price
  - Total Rows
    - Sell Price: Avg function
    - Customer Code: Group By
    - Last Name: Group By
    - First Name: Group By



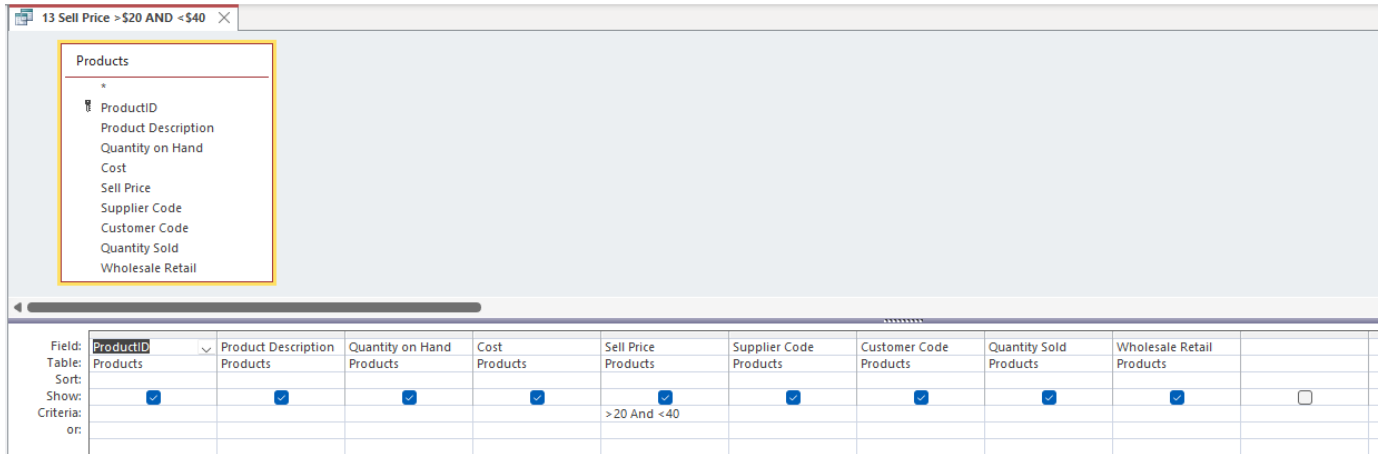
- 12) Question: Calculate the Min and Max Sell Price to each customer
- Name of Query: Min & Max Sell Price Grouped by Customer
  - Show Products Table and CustomerList Table
  - Show Fields:
    - Customer Code
    - Last Name
    - First Name
    - Sell Price
  - Total Rows
    - Sell Price: Min function
    - Sell Price: Max function
    - Customer Code: Group By
    - Last Name: Group By
    - First Name: Group By





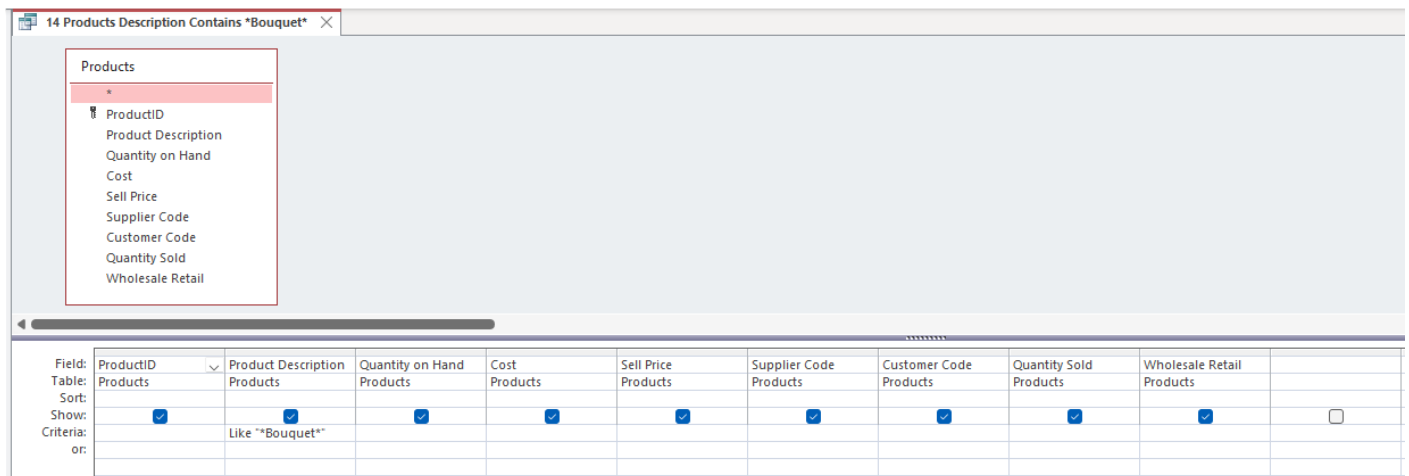
13) Question: Show records where the Sell Price is greater than \$20 and less than \$40.

- a) Name of Query: Sell Price >\$20 AND <\$40
- b) Show Products Table
- c) Show Fields:
  - i) All Fields
- d) Criteria (AND Criterion goes on same row):
  - i) Sell Price field: >20 And <40



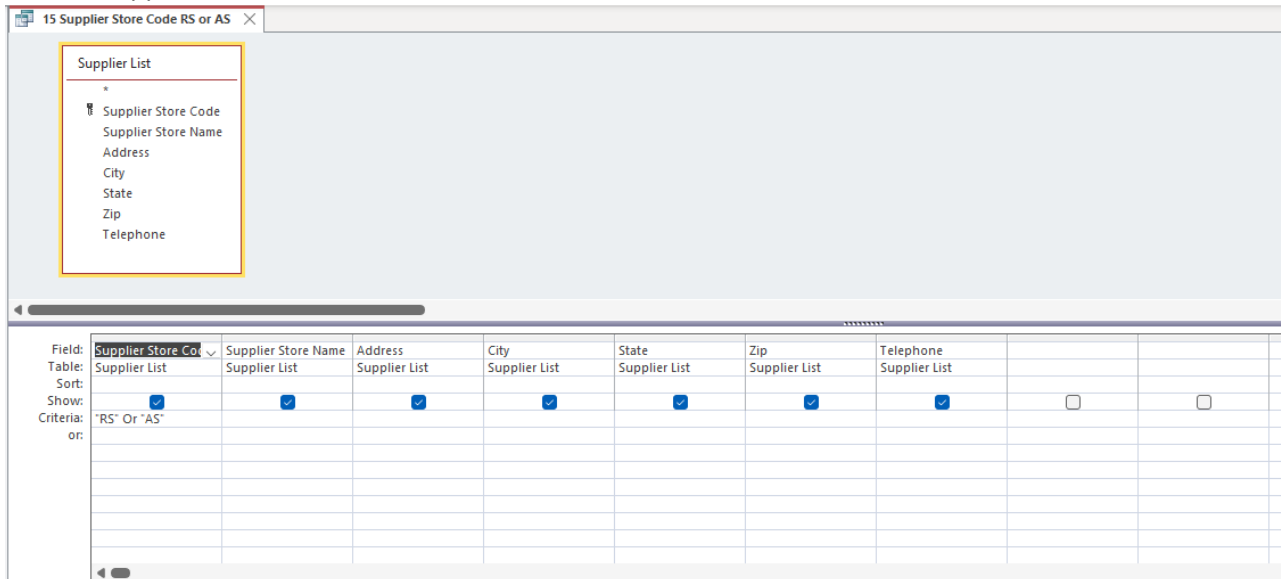
14) Question: Show records that has a product description that contains Bouquet

- a) Name of Query: Product Description Contains \*Bouquet\*
- b) Show Products Table
- c) Show Fields:
  - i) All Fields
- d) Criteria:
  - i) Description Field: \*Bouquet\*
- e) Note: \* is a wildcard that represents zero or more characters and ? represents a single character.
- f) This sort of query is called a "Contains Query".



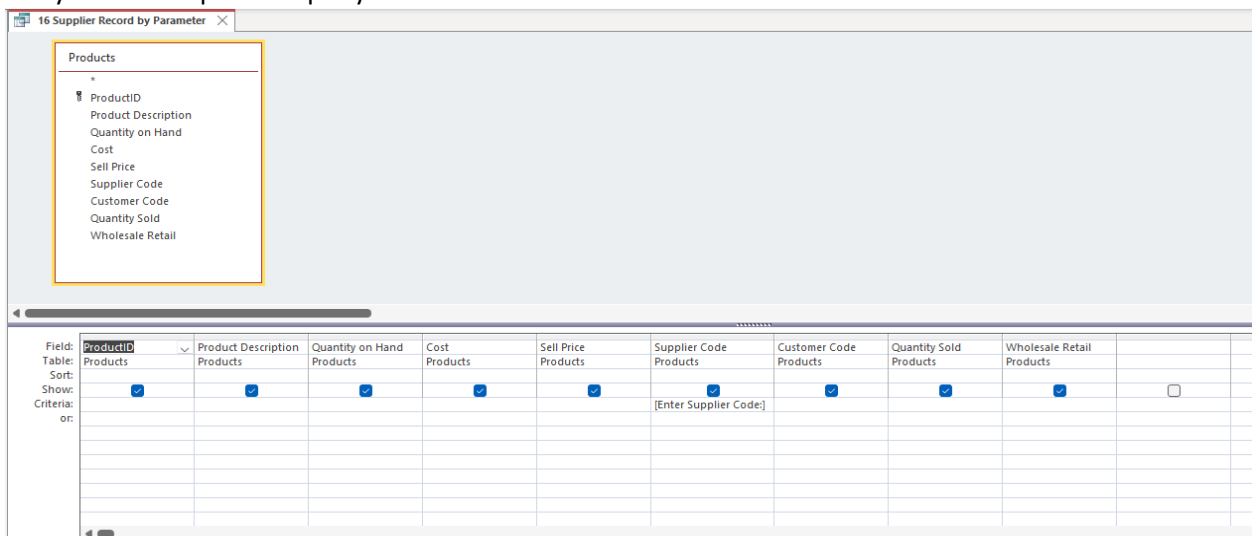
15) Question: Shows records for the Suppliers RS or AS

- a) Query Name: Supplier Store Code RS or AS
- b) Show Supplier List Table
- c) Show Fields:
  - i) All Fields
- d) Criteria (OR Criteria goes on different rows – but after you close and open again they appear on a single row, the Criterial row with OR operator):
  - Supplier Code field: RS
  - OR
  - Supplier Code field: AS



16) Question: Shows supplier records by parameter

- a) Query Name: Supplier Record by Parameter
- b) Show Products Table
- c) Show Fields:
  - i) All Fields
- d) Criteria:
  - Square brackets with a phrase in it, like: [Enter Supplier Code:]
- e) **Note: Parameter Query** displays a dialog box that prompts one to enter one or more criteria values when you run or open the query.



# Keyboard Shortcuts:

- 1) F2 to rename Table, Query, Form, Report.