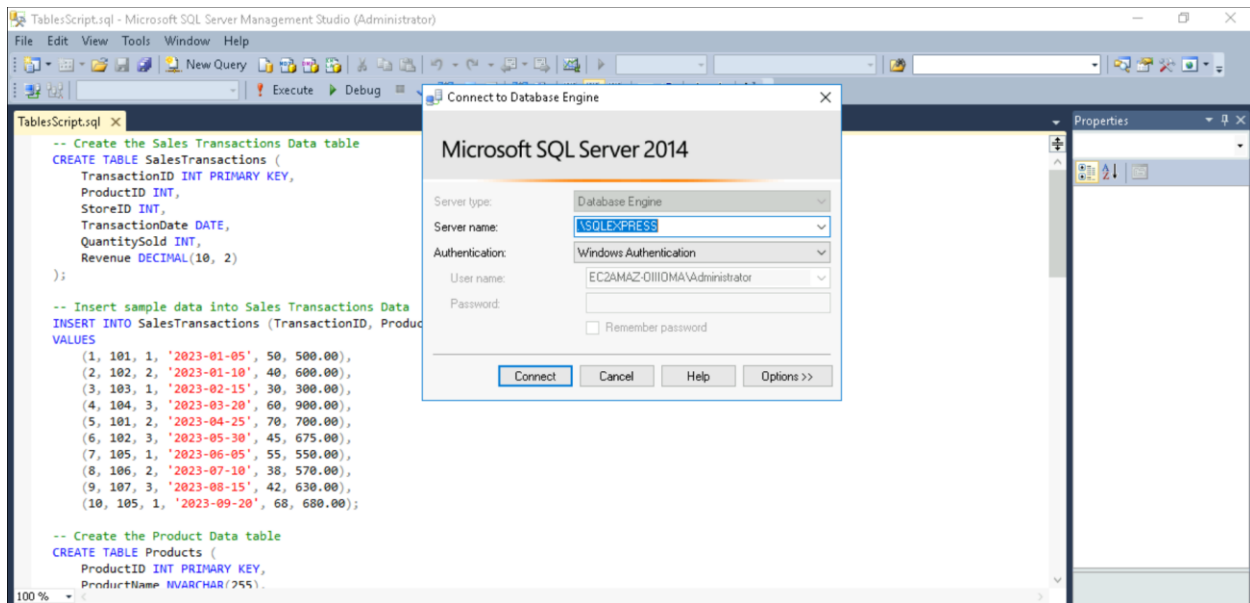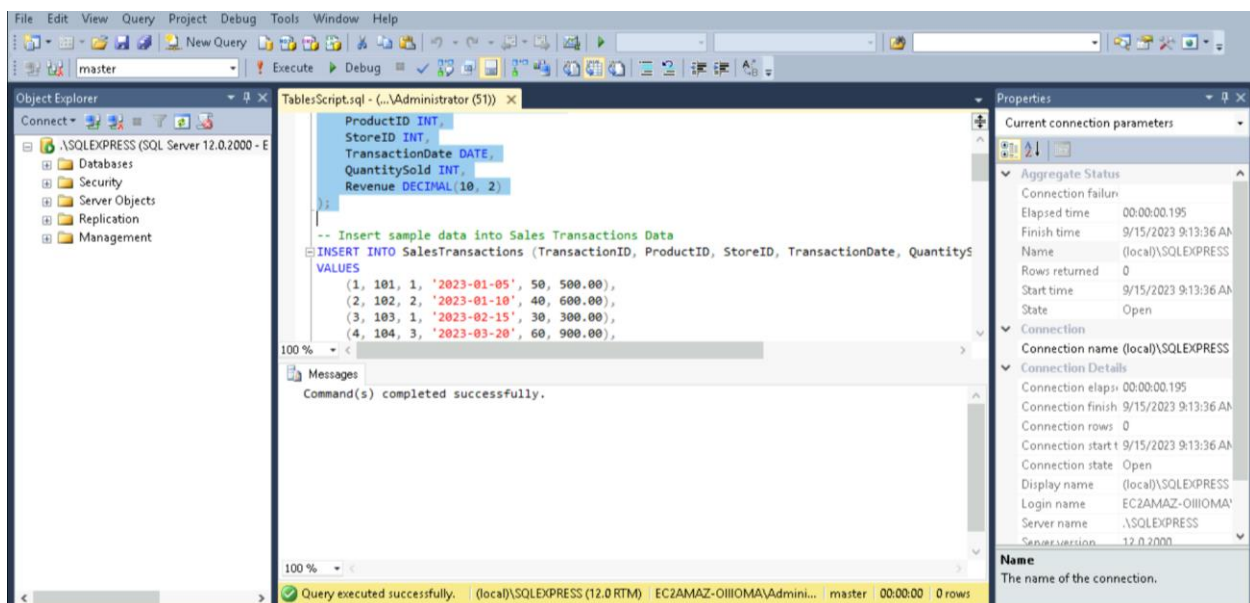# Hands-on Assessment

Power BI
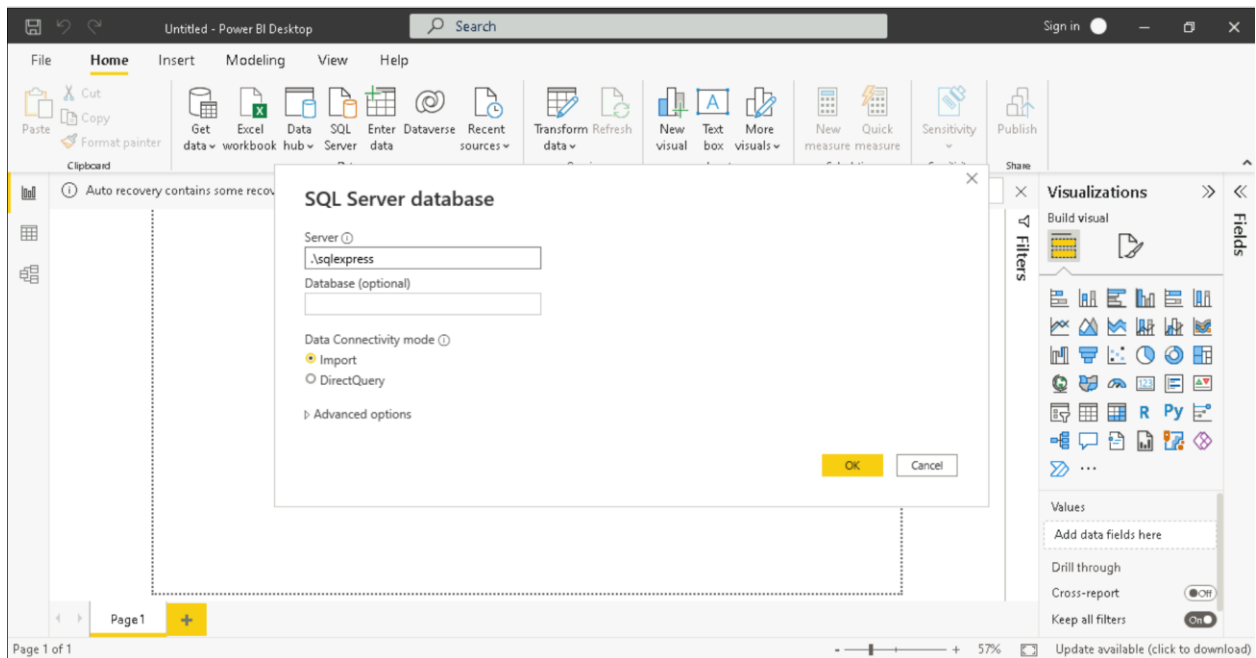
Requirement 1: Data Loading

Open GitHub link and download the data file

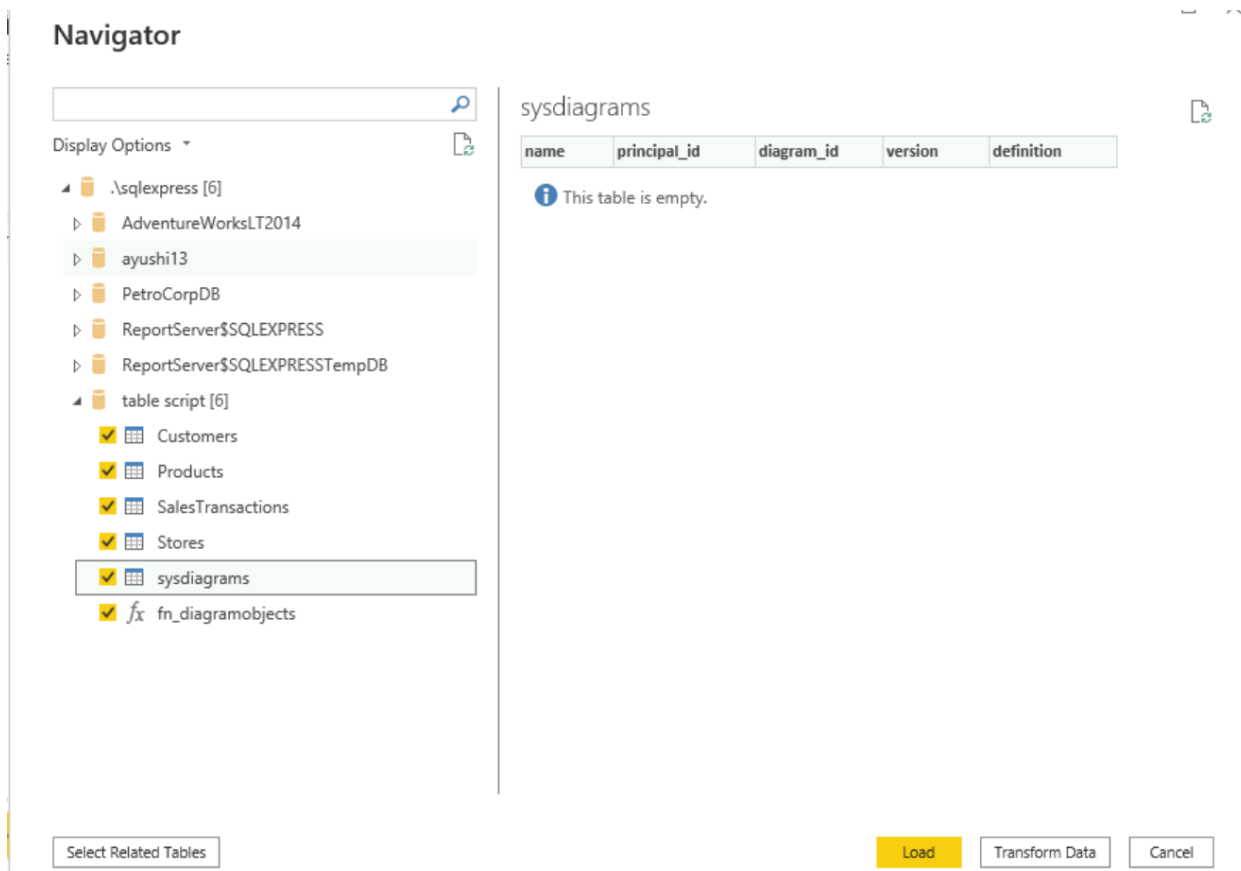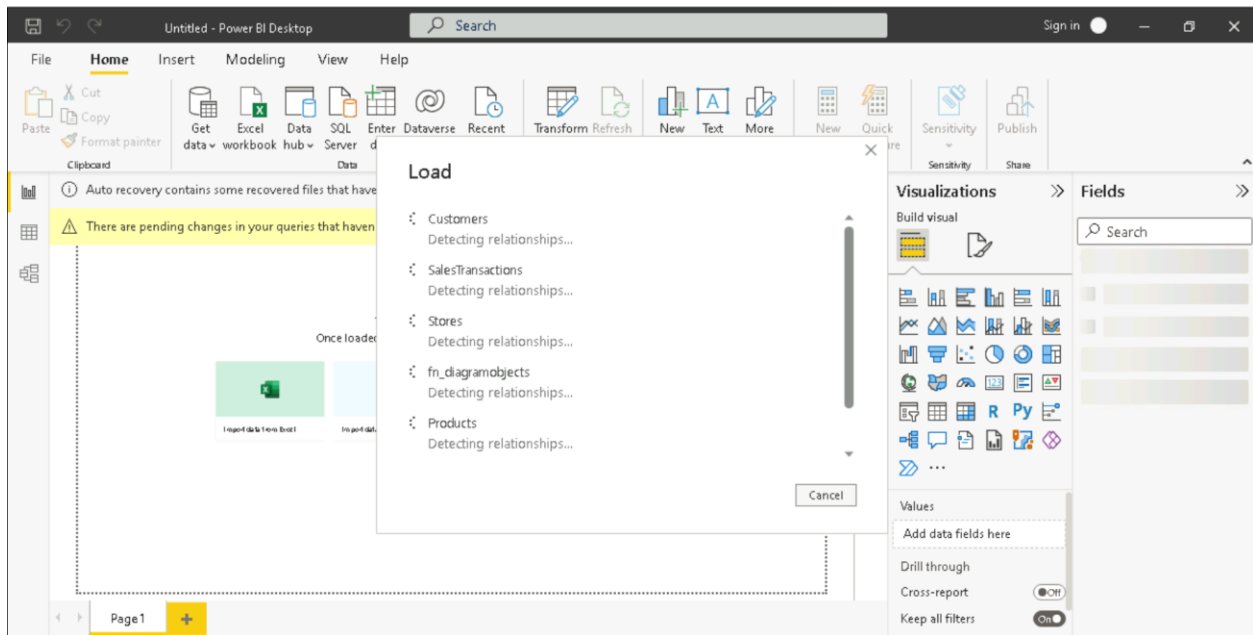**Create a new database and run all the queries.**

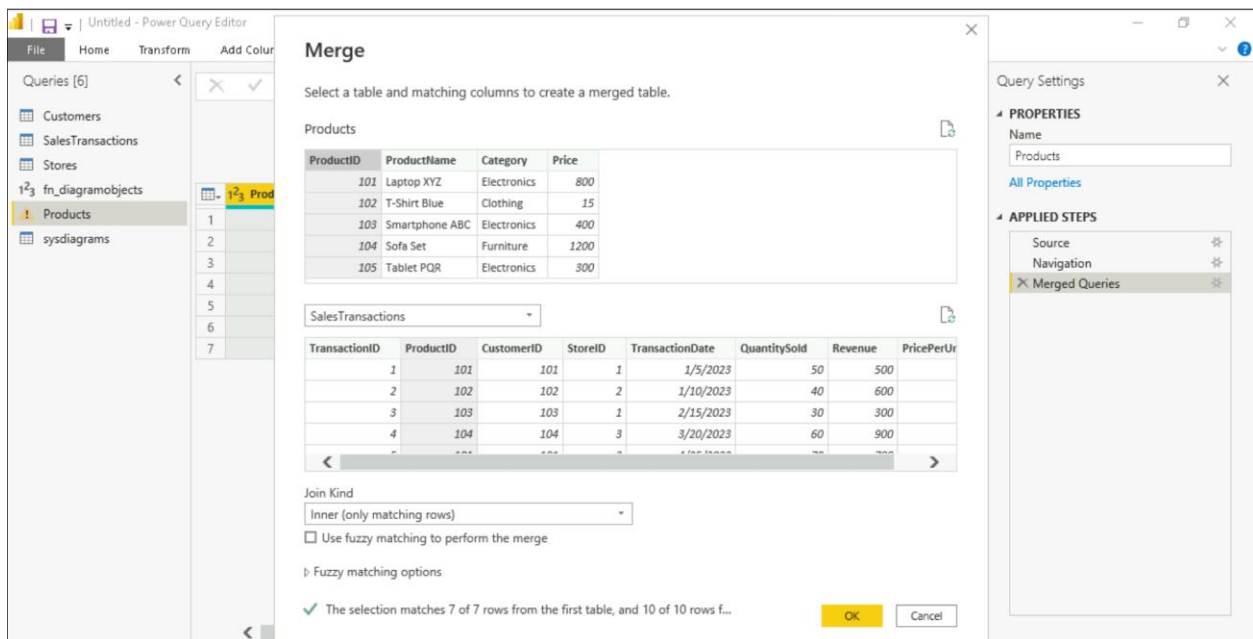# Connecting Power Bi with SQL server.

Loading database in Power Bi

Data Loading is done.

Requirement 2: Data Transformation

• **Merge Tables:**

Merging tables using inner join

Sales and Product table merged

• Clean Data:

Original format of Phone in Customers

Replace ' (' and ') 'with a blank

Data is cleaned and here is the new format.

• Create Calculated Columns:

Create a new column price per unit and used the formula to derive value.
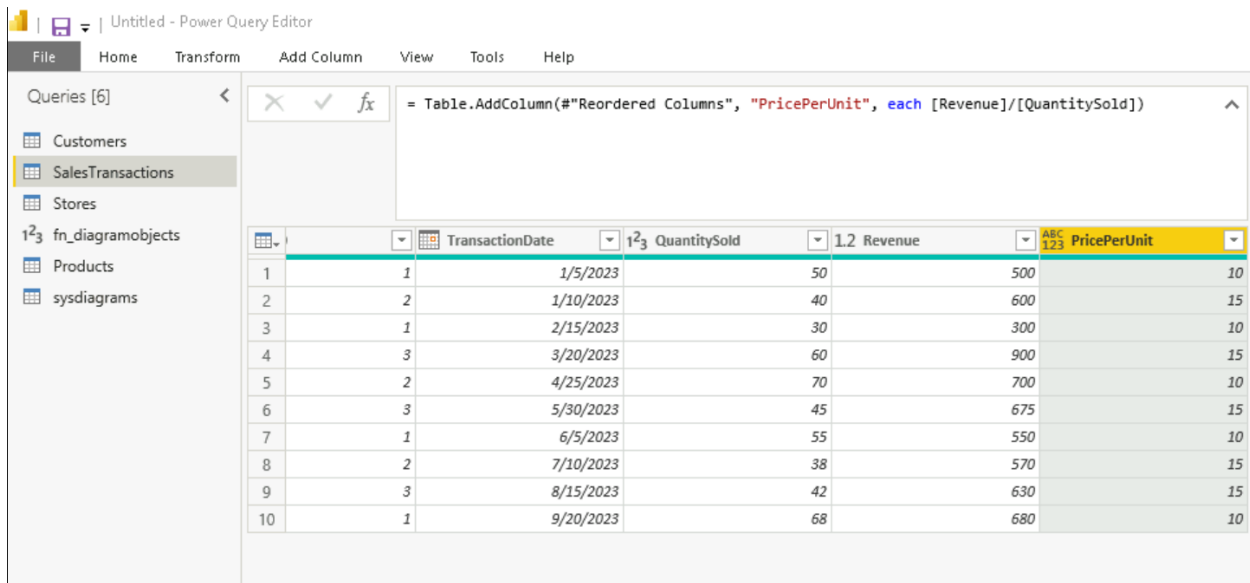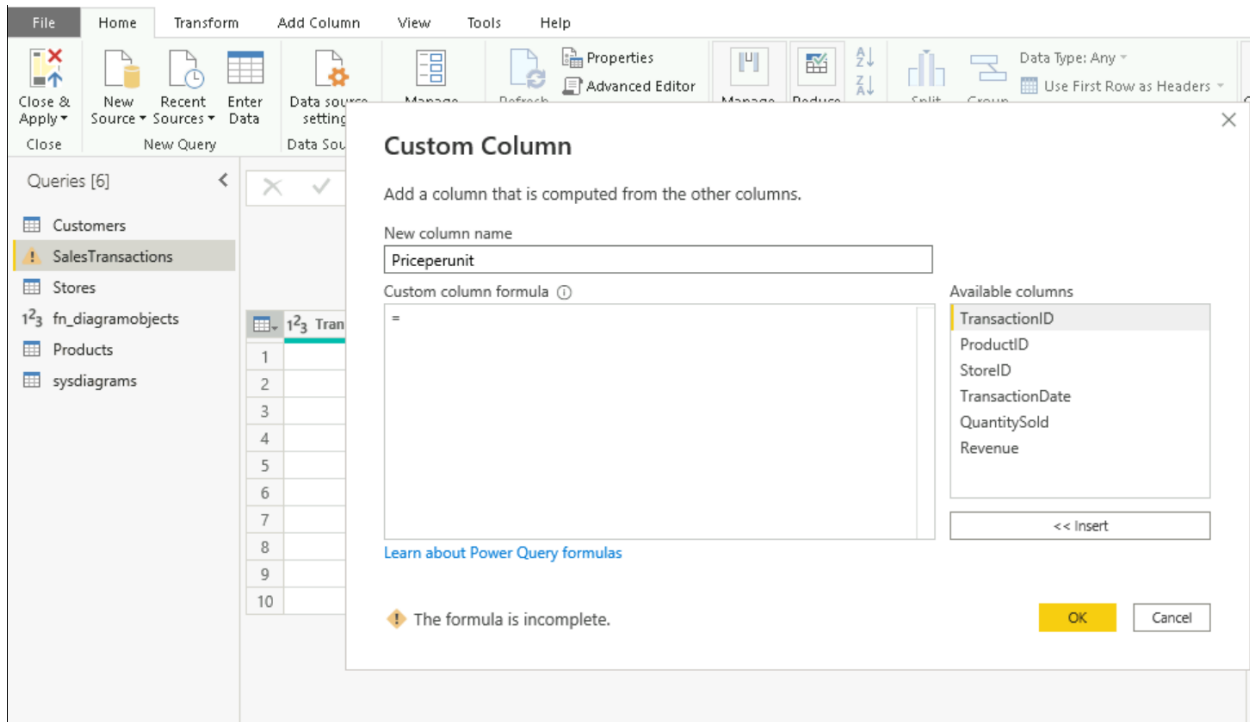
- **Filter Data:**

Creating a filter on Revenue column .

Revenue column values are now filtered.

Requirement 3: Data Modelling

• Create Relationships:

• Create Hierarchies:

Requirement 4: Business Queries and Analysis

1. Who are the top-spending customers based on their total purchase amount?
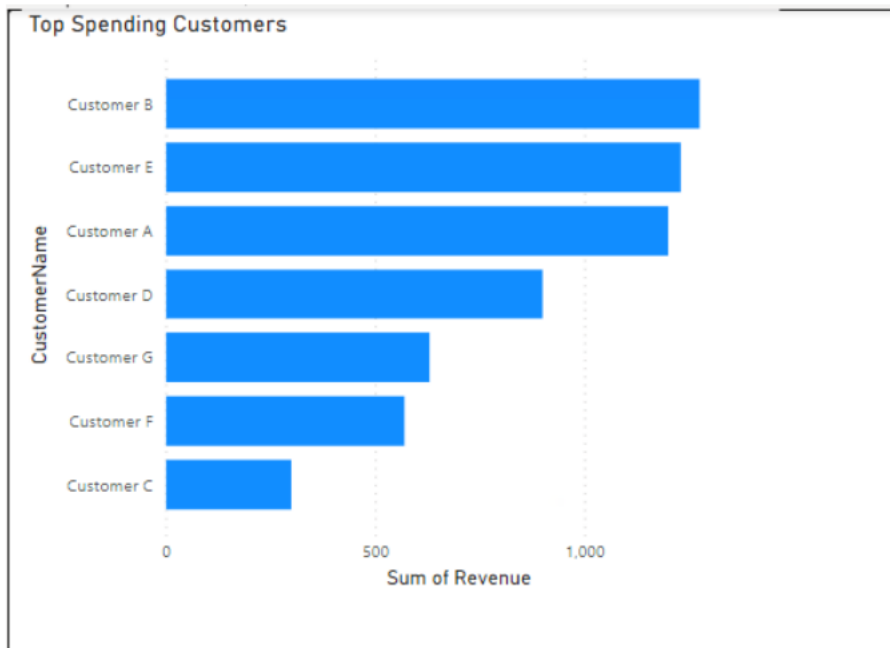
2. How is sales revenue distributed among different store managers?
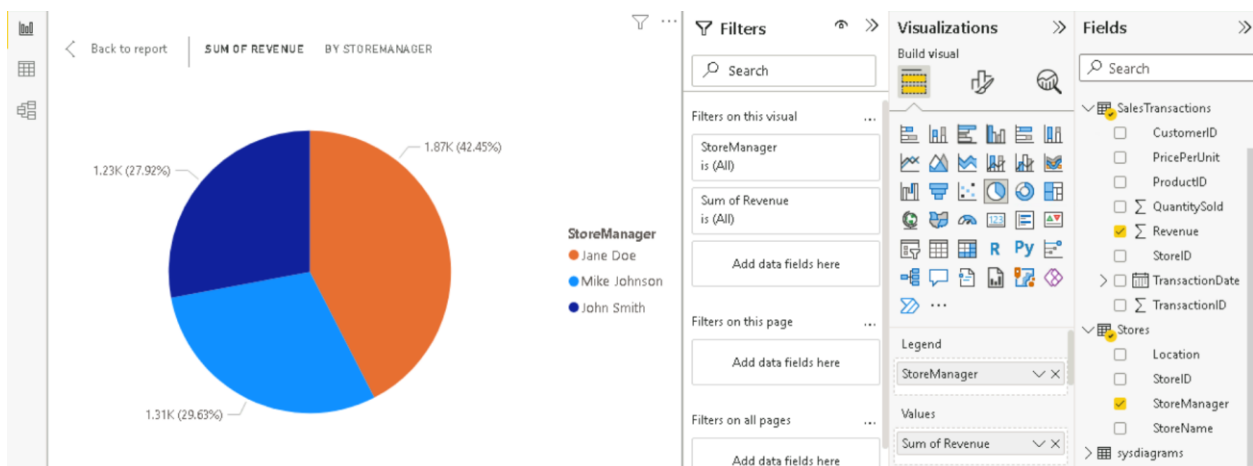
3. What is the average price of products in each category?
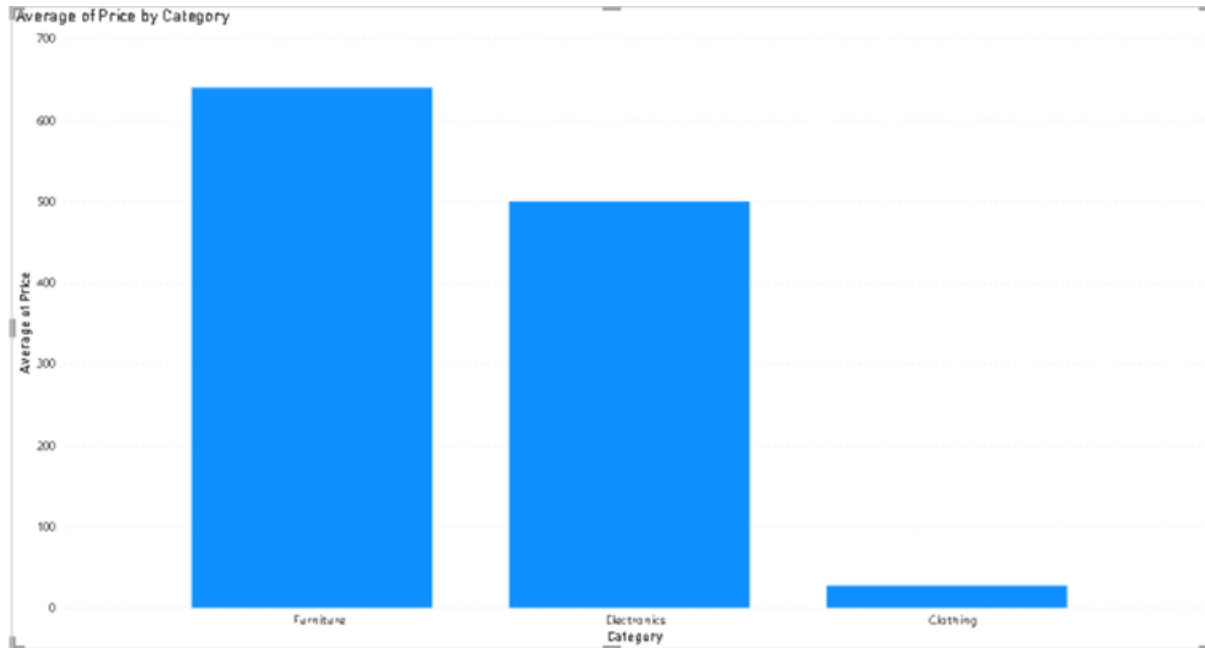
4. Are there specific days of the week when sales are higher?

5. How do sales trends vary by product category on a monthly basis?

Products.Category ● Clothing ● Electronics ● Furniture

Sum of QuantitySold
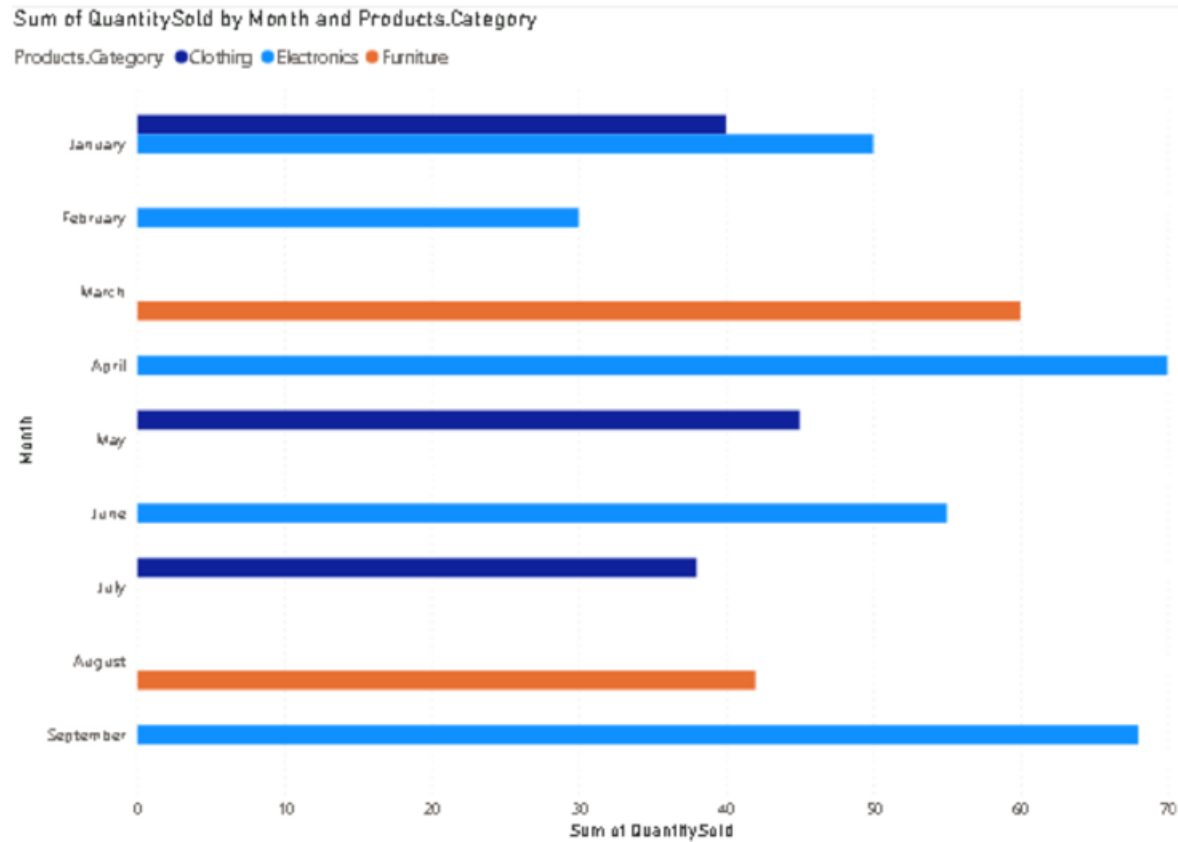
6. What percentage of products account for 80% of total sales revenue?

Sum of QuantitySold by Products.ProductName

30 (6.02%)
38 (7.63%)
42 (8.43%)
60 (12.05%)
85 (17.07%)
123 (24.7%)
120 (24.1%)

Products.ProductName
● Tablet PQR
● Laptop XYZ
● T-Shirt Blue
● Sofa Set
● Chair
● Jeans Black
● Smartphone ABC
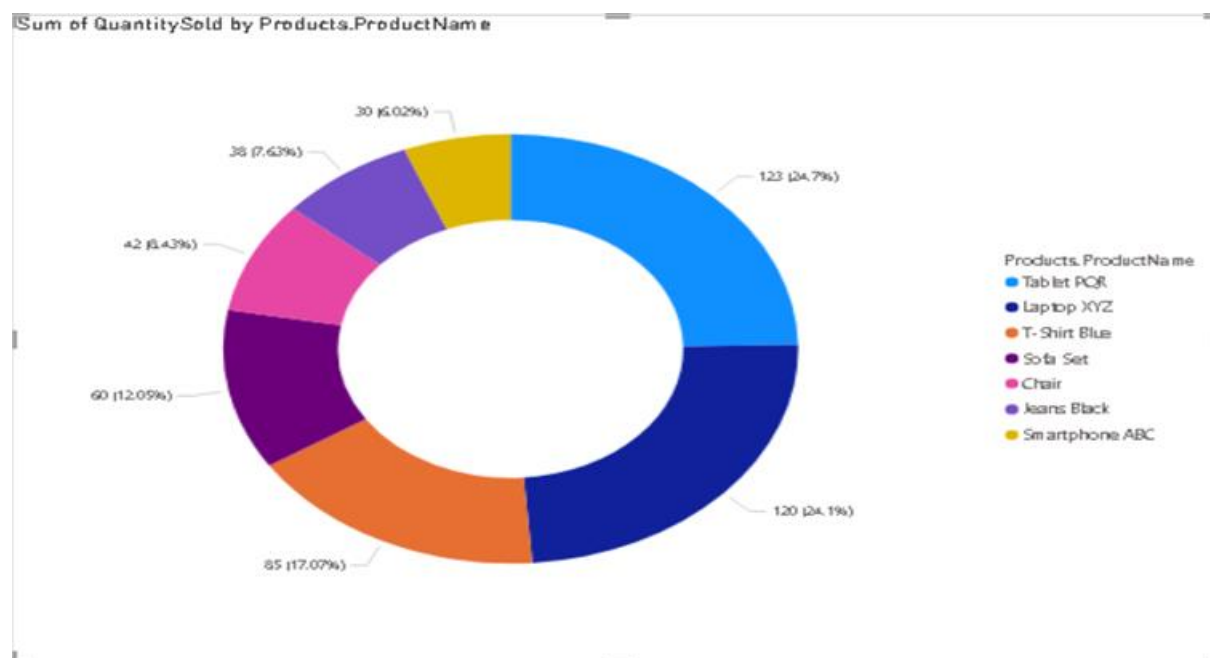
7. Are there any trends in repeat customer purchases?

8. Which product categories perform best at each store location?

Sum of QuantitySold by Products.Category and Stores.Location
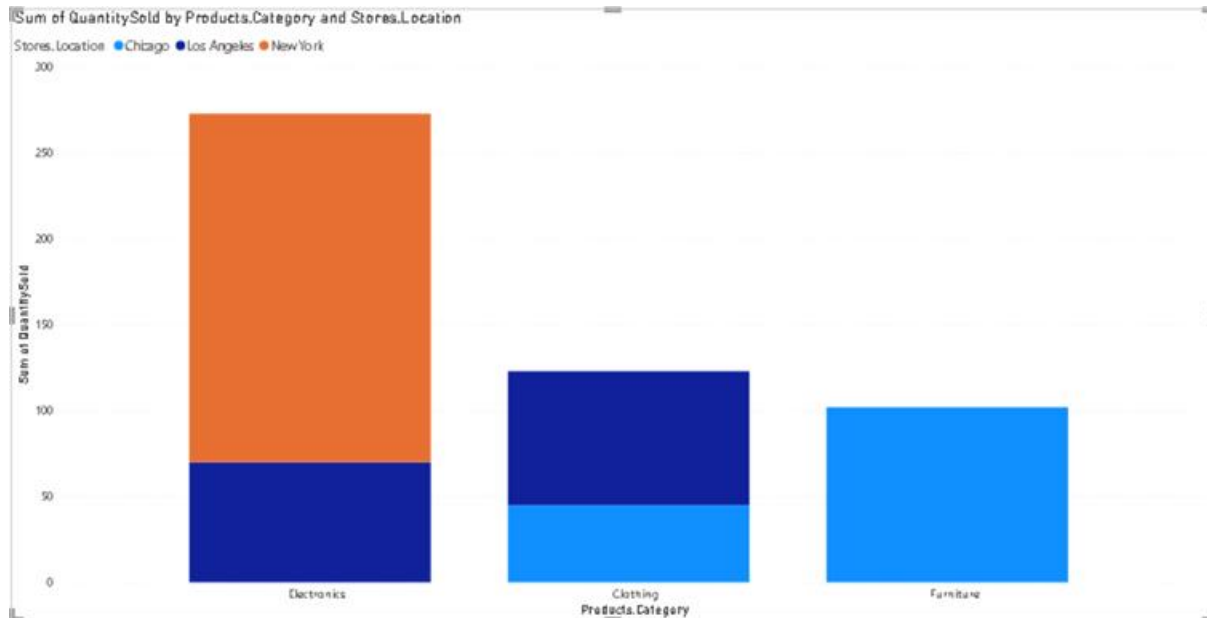
9. Are there any seasonal patterns or trends in sales for specific products or categories?

Sum of Revenue by Month and Products.Category
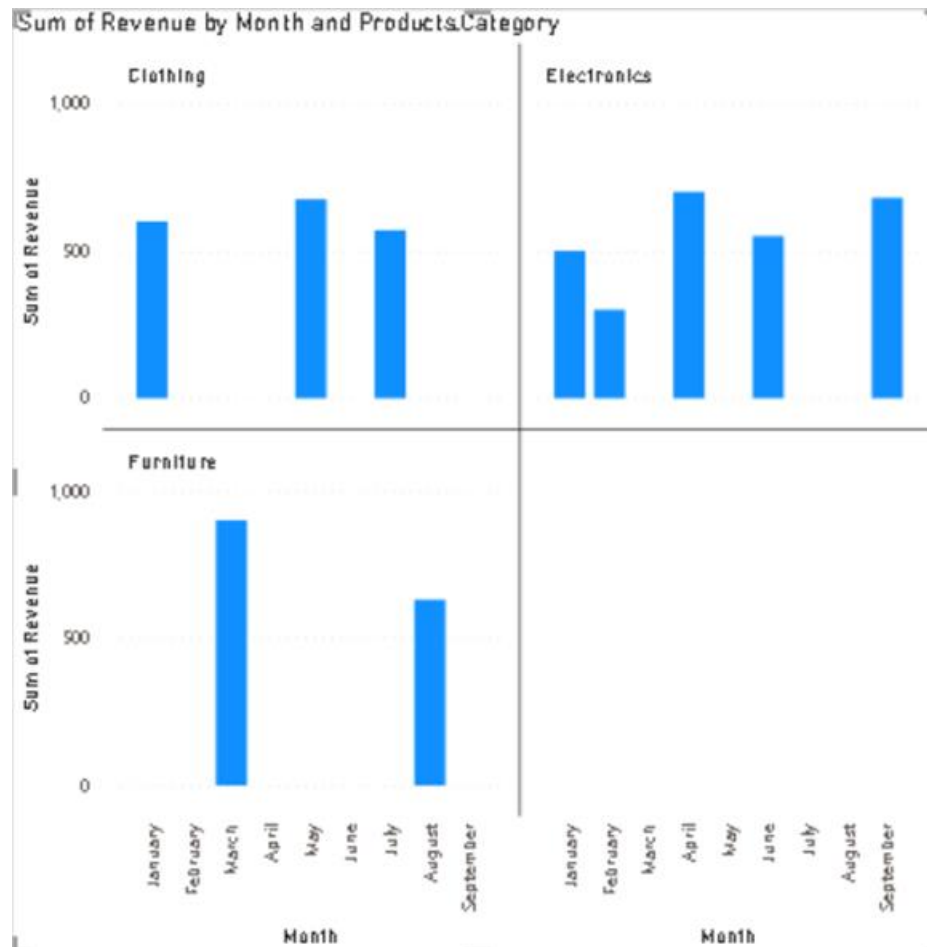
10. Can customers be segmented into high, medium, and low-value segments based on their purchase history.

Requirement 5: Data Insights and Recommendations –

• **Analyze Patterns: Identify patterns and trends in the data, such as seasonality or regional variations and show it or mark it.**

• **Generate Insights: Provide actionable insights based on your analysis. For example, suggest increasing marketing efforts for the most profitable product category.**

• **Create Visual Stories: Use storytelling techniques to communicate your findings effectively in the reports and dashboards.**