



Project 1: Unleashing Sales Analytics Potential

Problem Statement:

You are given a large dataset in an Excel spreadsheet containing information about sales transactions for a multinational company.

Dataset:

The dataset includes the following column headers:

1. **Invoice ID:** Unique identifier for each invoice or transaction
2. **BranchCity:** The city where the branch or store is located
3. **Customer type:** The type of customer, such as "Member" or "Normal"
4. **Gender:** The gender of the customer
5. **Product line:** The category or type of product being sold
6. **Unit price:** The price of a single unit of the product
7. **Quantity:** The quantity of products purchased in the transaction
8. **Total:** The total amount or value of the transaction
9. **Date:** The date when the transaction occurred
10. **Payment:** The payment method used for the transaction
11. **Rating:** The customer satisfaction rating or feedback for the transaction

These column headers represent the different attributes and information captured in the dataset, providing details about the sales, customer demographics, product categories, pricing, and transaction characteristics.

Guidelines:

Your task is to create a dynamic dashboard that provides the following insights:

- **Total sales revenue:** Calculate the total revenue generated by the company based on the "Total" column.
- **Monthly sales trend:** Create an appropriate chart that shows the monthly sales trend over a given period. The chart should display the total sales revenue for each month.
- **Top-selling products:** Determine the top 5 best-selling products based on the total quantity sold. Display the product line under which they are present and quantities in a separate table.
- **Customer analysis:** Create a bar chart that shows the distribution of customers based on the total amount they spent. Group customers into different spending ranges (e.g., \$0-\$100, \$101-\$500, \$501-\$1000, etc.) and display the number of customers in each range.

- **Sales by branch:** Analyse the sales performance by branch. Calculate the total sales revenue for each branch and display the results in a pie chart.
- **Sales by customer type:** Create a PivotTable that summarizes the total sales revenue for each customer type.

Note: The dataset may contain thousands of rows, so you need to use appropriate Excel functions, formulas, and techniques to handle the data efficiently and ensure that the dashboard updates automatically when the dataset changes.