DA Assignment - 2

Objective:

Students will design an interactive **Dashboard** using the provided dataset. The goal is to analyze key metrics and provide insights into trends, performance and sales.

Dataset: Link

Attribute information

Invoice id: Computer-generated sales slip invoice identification number

Branch: Branch of supercenter (3 branches are available identified by A, B and C).

City: Location of supercenters

Customer type: Type of customers, recorded by Members for customers using member cards and Normal for those without member cards.

Gender: Gender type of customer

Product line: General item categorization groups - Electronic accessories, Fashion accessories, Food and beverages, Health and beauty, Home and lifestyle, Sports and travel

Unit price: The price of each product in $

Quantity: Number of products purchased by the customer

Tax: 5% tax fee for customers buying

Total: Total price including tax

Date: Date of purchase (Record available from January 2019 to March 2019)

Time: Purchase time (10 am to 9 pm)

Payment: Payment used by the customer for the purchase (3 methods are available – Cash, Credit card and Ewallet)

COGS: Cost of goods sold

Gross margin percentage: Gross margin percentage

Gross income: Gross income

Rating: Customer stratification rating on their experience (scale of 1 to 10)

Task:

1. **Import the Dataset**: Load the provided dataset into **Power BI**.

2. **Data Cleaning**: Ensure data consistency and Create new Columns if required

3. **Dashboard Components** (Must include):

○ **Cards, Slicers, Visualizations**

4. **Interactivity**: Ensure the dashboard is interactive

Screenshot of Dashboard
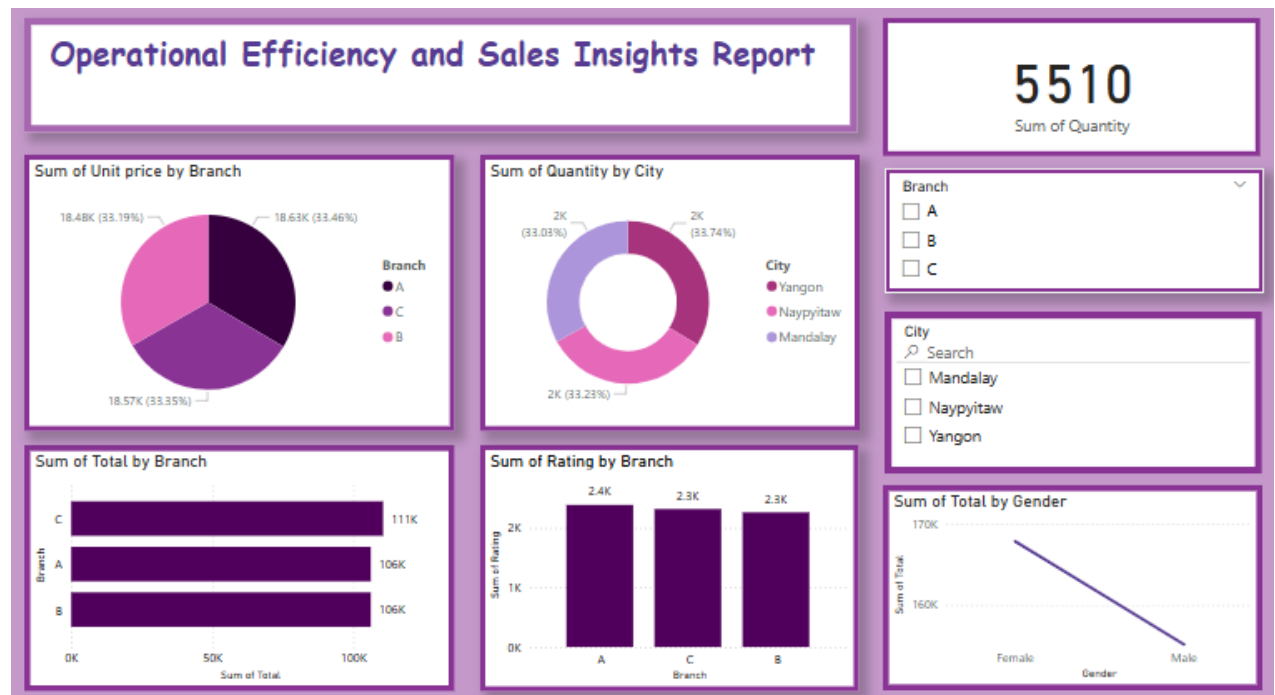
Key findings and insights

1. Overall Sales Performance:

- The total quantity sold across all branches and cities is 5,510.
- Sales appear to be evenly distributed among the different locations.

2. Branch Performance Analysis:

- Unit Price Contribution: The three branches (A, B, and C) have nearly equal shares in unit price contribution: ○ Branch A: 33.19% ○ Branch B: 33.46%

  ○ Branch C: 33.35%

- Total Sales by Branch:

  ○ Branch A leads with 111K in total sales. ○ Branch C follows closely with 106K.

  ○ Branch B has the lowest total sales at 105K.

3. City-Wise Sales Distribution:

- Sales quantity is evenly spread across the three cities: Yangon (33.03%), Naypyitaw (33.74%), and Mandalay (33.23%).
- No single city dominates sales, indicating a balanced geographic demand.

4. Customer Rating Insights:

- Customer ratings are fairly uniform across branches:
  - Branch A: 2.4K ratings o   Branch B: 2.3K ratings o
    Branch C: 2.3K ratings
- This suggests consistent customer satisfaction across all locations.

5. Gender-Based Sales Analysis:

- Sales are significantly higher among male customers than female customers.
- Female sales are much lower, which indicates an opportunity to target female customers with specialized promotions or tailored marketing strategies.