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 consitency and Create new Columns if required

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

○ **Cards, Slicers, Visualizations**

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

Screenshot of Dashboard
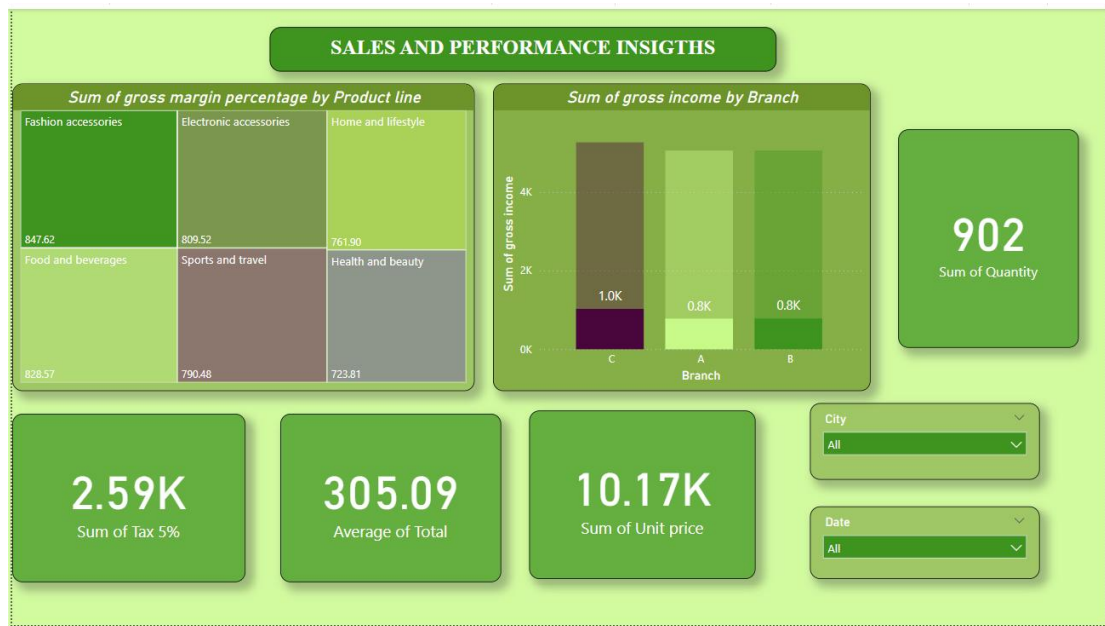
key findings and insights

Gross Margin Performance by Product Line

- **Fashion Accessories** leads with the highest **gross margin (847.62)**.
- Other strong-performing categories include:
  - **Electronic Accessories (809.52)**
  - **Food and Beverages (828.57)**
  - **Sports and Travel (790.48)**
- **Health and Beauty (723.81)** has the lowest margin among product lines.

·**Gross Income by Branch**

- **Branch C** has the highest gross income, reaching **1.0K**.

- **Branches A and B** both have **0.8K**, indicating similar sales performance.

Sales and Quantity Metrics

- **Total Quantity Sold: 902 units**, reflecting sales volume.
- **Total Unit Price Sum: 10.17K**, showing product pricing trends.

Tax and Financial Metrics

- **Total Tax (5%) Collected: 2.59K**, which contributes to overall revenue.
- **Average of Total Sales: 305.09**, giving an idea of the general revenue trend.

Filtering Options

- The dashboard provides filtering options by **City** and **Date**, allowing for deeper insights based on location and time.