Project: Business and Campaign Analysis for Simple Threads

Company Overview:
Simple Threads is a boutique retail company specializing in selling curated clothing collections for both men and women. The company operates primarily through its online store and has built a growing customer base.

Available Data:
You have been provided with the company's internal database, consisting of the following files:

- **Customer_Information.csv**: Contains demographic and basic information about each customer.

- **Product_Information.xlsx**: Contains details of all products sold by Simple Threads, including categories, prices, and other attributes.

- **Discount_Information.xlsx**: Contains records from an end-of-year promotional email campaign, listing customers who were offered discount coupons via email.

- **Purchase_Information.xlsx**: Captures all purchases made through the Simple Threads website during the first quarter of 2025 (January–March).

Your Role

You are working as a **Data Analyst** at Simple Threads.
The management team seeks your expertise to gain actionable insights about:

- Overall business performance

- Customer behavior

- Product sales trends

- The effectiveness of the year-end discount email campaign

Your Objective

Using the given database, **analyze the data thoroughly** and **answer the following key business questions**:

1. **Customer Analysis**:

    o How many unique customers made purchases during Q1 2025?

    o What is the distribution of customers across different regions or demographics?

    o What is the average spend per customer?

2. **Sales Analysis**:

    o Which products were the most popular during Q1 2025?

    o What is the total sales revenue generated during this period?

o Are there any clear sales trends across different product categories?

3. **Campaign Analysis**:

    o How many customers who received discount coupons actually made purchases?

    o Did customers who received discounts spend more than those who did not?

    o Which discount offers were the most effective in driving sales?

4. **Advanced Analysis**:

    o **Create Boxplots** for numeric variables like product prices, quantities purchased, and discount percentages.

    o **Detect Outliers**: Identify any unusual purchase patterns (very high or very low purchase amounts).

    o **Correlation Analysis**: Explore relationships such as:

    ▪ Does offering a higher discount correlate with higher purchase amounts?

    ▪ Is there any relationship between quantity purchased and product price?

Expected Deliverables

You are expected to submit a **comprehensive analysis report** including:

- **Data Cleaning** steps (handling missing values, duplicates, format issues)

- **Descriptive Statistics** (mean, median, percentiles, etc.)

- **Visualizations** (bar charts, box plots, scatter plots, etc.)

- **Interpretations and Business Insights** based on the analysis

- **Summary of Key Findings** regarding customer behavior, product sales, and campaign effectiveness

---

Important Notes

- Maintain clarity and professionalism in your report.

- Each insight should be supported by **relevant data analysis and visual evidence**.

- Focus on both **quantitative findings** and their **business interpretations**.

- Be mindful of identifying potential **outliers** and explaining their business significance.

Remember:

This project is not just about answering the questions, but about telling a clear story with the data helping the management team make informed strategic decisions for Simple Threads' future growth!