

Business Problem Statement

A well-established retail company aims to gain a better understanding of customer shopping behavior in order to increase sales, improve customer satisfaction, and build long-term customer loyalty. The management has observed changes in buying patterns across different demographic groups, product categories, and sales channels, including both online and offline platforms. They are particularly focused on identifying the factors—such as discounts, customer reviews, seasonal influences, and payment preferences—that affect consumer purchasing decisions and repeat purchases.

We have been assigned to analyze the company's consumer behavior dataset to address the following key business question:

“How can the company use consumer shopping data to identify trends, enhance customer engagement, and optimize marketing and product strategies?”

Deliverables

1. Data Preparation & Modeling (Python):

Clean and process the raw dataset and transform it into a suitable format for analysis.

2. Data Analysis (SQL):

Organize the data into a structured form, simulate business transactions, and execute queries to extract insights related to customer segments, customer loyalty, and purchase-driving factors.

3. Visualization & Insights (Power BI):

Develop an interactive dashboard that presents important patterns and trends, enabling stakeholders to make informed, data-driven decisions.

4. Report and Presentation:

Prepare a clear and well-structured project report summarizing key findings and business recommendations. Create a presentation that visually communicates insights and actionable recommendations to stakeholders.

5. GitHub Repository:

Maintain a well-organized repository containing all Python scripts, SQL queries, and dashboard files.