

Business Problem Statement

A major retail brand aims to gain deeper insights into customer shopping behavior to boost sales, enhance customer satisfaction, and strengthen long-term loyalty. The management has observed shifts in buying trends across different demographics, product categories, and sales channels (online vs. offline). They want to identify the key drivers influencing customer decisions and repeat purchases—such as discounts, product reviews, seasonal patterns, and preferred payment methods.

Your task is to analyze the company's consumer behavior dataset to address this central business question:

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

Deliverables

1. **Data Preparation & Modeling (Python):** Process, clean, and transform the raw dataset to make it ready for analysis and model building.
2. **Data Analysis (SQL):** Structure the data, replicate business scenarios, and execute SQL queries to uncover insights related to customer behavior, loyalty, and key purchase factors.
3. **Visualization & Insights (Power BI):** Develop an interactive Power BI dashboard to showcase major trends and insights that support data-driven decision-making.
4. **Presentation:** Create a visually engaging presentation to clearly communicate findings and strategic recommendations to stakeholders.
5. **GitHub Repository:** Upload all Python code, SQL scripts, and Power BI files into a clearly organized and structured GitHub repository.