Problem Statement

A leading retail company wants to better understand his customers' shopping behavior in order to improve his sales, customer satisfaction, and long-term loyalty. The management team noticed changes in purchasing patterns across demographics, product categories, and sales channels (online vs. offline). They are particularly interested in uncovering which factors, such as discounts, reviews, seasons, or payment preferences, drive consumer decisions and repeat purchases.

You are tasked with analyzing the company's consumer behavior dataset to answer the following overarching business question:

"How can the company leverage consumer shopping data to identify trends, improve customer engagement, and optimize marketing and product strategies?"

Deliverables

1.Data Preparation & Modeling (Python): Clean and transform the raw dataset for analysis.

2. Data Analysis (SQL): Organize the data into a structured format, simulate business transactions, and run queries to extract insights on customer segments, loyalty, and purchase drivers.

3. Visualization & Insights (Power BI): Build an interactive dashboard that highlights key patterns and trends, enabling stakeholders to make data-driven decisions.

4. Report and Presentation: Write a clear project report summarizing your key findings and business recommendations. Prepare a presentation that visually communicates insights and actionable recommendations to stakeholders.