

Business Problem Statement

A leading retail company wants to better understand its customers' shopping behavior in order to improve sales, customer satisfaction, and long-term loyalty. The management team has 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. Python (Data Preparation & EDA):** Cleaned, transformed, and analyzed raw customer shopping data using Python and Jupyter Notebook.
- 2. SQL (Data Analysis):** Designed tables and wrote SQL queries to extract insights on customer segments, loyalty, and purchase behavior.
- 3. Power BI (Visualization):** Built an interactive dashboard highlighting sales trends, customer demographics, and key performance metrics.
- 4. Report & Presentation:** Documented insights and business recommendations with a stakeholder-ready report and presentation.
- 5. GitHub Repository:** Organized repository containing Python scripts, SQL queries, Power BI dashboard, and documentation.