Business Problem Statement

E-commerce businesses generate massive volumes of sales and customer data every day. However, the challenge lies in converting this raw data into actionable insights that can guide strategic decisions. Companies need a unified analytics solution to track sales performance, understand customer behaviour, measure discount effectiveness, and analyse regional and product-level trends.

The e-commerce company aims to leverage its consumer shopping data to uncover actionable insights that can drive business growth. The key business question is:
"How can the company use consumer shopping data to identify trends, improve customer engagement, and optimise marketing and product strategies?"

Deliverables

1. **Data Preparation & Modelling (Python):** Clean and transform the raw dataset for analysis.
2. **Data Analysis (SQL):** Organise the data into a structured format, simulate business transactions, and run queries to extract insights on customer segments, loyalty, and purchase drivers.
3. **Visualisation & 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 summarising your key findings and business recommendations. Prepare a presentation that visually communicates insights and actionable recommendations to stakeholders.
5. **GitHub Repository:** Include all Python scripts, SQL queries, and dashboard files in a well-structured repository.