Business problem statement

A prominent retail organization is striving to deepen its understanding of client purchasing habits to boost revenue, enhance customer satisfaction, and foster enduring loyalty. Executive leadership has detected shifting buying trends across various customer demographics, product lines, and sales channels (both digital and physical).

The primary objective is to pinpoint the specific drivers influencing consumer decisions and retention, such as price reductions, product ratings, seasonal fluctuations, and preferred payment methods.

Core Objective

> *"How can the organization utilize shopping data to uncover actionable trends, strengthen customer engagement, and refine marketing and product development strategies?"*

Project Deliverables

1. **Data Engineering & Preprocessing (Python):** Perform data cleaning and transformation on the raw dataset to ensure readiness for analysis.
2. **Structured Analysis (SQL):** Organize data into a relational format, simulate transaction flows, and execute queries to derive insights regarding customer segmentation and purchase drivers.
3. **Visual Reporting (Power BI):** Develop an interactive dashboard that emphasizes critical patterns, empowering stakeholders to make informed, data-centric decisions.
4. **Documentation & Presentation:** Compile a comprehensive project report detailing findings and strategic suggestions. Additionally, create a visual presentation to effectively communicate these insights to the executive team.