Business Problem Document (BPD)

1. Business Background

A retail company operates across multiple product categories and serves a diverse customer base. While the company collects large volumes of customer and transaction data, it lacks a structured approach to analyze this data and convert it into actionable business insights.

Management has observed variations in customer spending, discount usage, subscription adoption, and product performance but does not clearly understand the drivers behind these patterns. As a result, decision-making related to marketing strategy, customer retention, and product positioning is largely intuition-based rather than data-driven.

2. Business Problem

The key business problem is the **lack of visibility into customer shopping behavior** and **limited understanding of factors influencing revenue, loyalty, and repeat purchases**.

Without proper analysis:

- High-value customers are not clearly identified
- Discount strategies may reduce profit margins
- Subscription benefits may not be optimally designed
- Product and category-level performance is not fully understood

3. Key Business Questions

This analysis aims to answer the following questions:

- How is revenue distributed across customer segments and age groups?
- Which products and categories contribute the most to sales and revenue?
- Are subscribed customers more valuable than non-subscribed customers?
- Which products rely heavily on discounts?
- Who are the most loyal and repeat customers?
- How concentrated is revenue among top-spending customers?

4. Analytical Approach

To solve the business problem, the following approach was adopted:

1. **Data Preparation (Python)**
○ Cleaned and standardized raw data
○ Handled missing values and created derived features

2. **Exploratory Data Analysis (EDA)**
○ Identified patterns in spending, demographics, and behavior

3. **SQL-Based Analysis**
○ Executed business queries to calculate metrics, segments, and rankings

4. **Visualization (Power BI)**
○ Built an interactive dashboard for stakeholder-friendly insights

5. **Insight Generation**
○ Converted analytical results into actionable business recommendations

5. Deliverables

● Cleaned dataset and Python notebooks
● SQL queries addressing business questions
● Interactive Power BI dashboard
● Business report and presentation
● GitHub repository with complete project assets