Retail Sales Analysis – Problem Statement

Prepared by: **Anas Ahmed Zakaria Mohamed**

■ Project Title

Retail Sales Analysis using SQL Server

■ Problem Statement

Our company operates a retail store that records thousands of sales transactions across multiple product categories. The management team lacks a clear view of sales performance, customer behavior, and time-based sales trends. The goal of this project is to use SQL Server to clean, explore, and analyze retail sales data to extract valuable insights that can guide better decision-making and revenue growth.

■ Objectives

1. Clean and validate raw sales data.
2. Identify unique customers and key sales categories.
3. Analyze total and average sales by category, month, and time of day.
4. Determine the best-performing months and customer segments.
5. Provide business insights to improve marketing and operations.

■ Key Business Questions

- How many total sales transactions occurred?
- Which product categories generate the most revenue?
- What is the average customer age for each category?
- Who are the top 5 customers based on total sales?
- During which hours (morning, afternoon, evening) do most sales occur?
- Which months have the highest sales averages?

■ Expected Outcomes

• Clear view of customer segmentation and buying behavior.
• Identification of peak sales periods.
• Ranking of top-performing customers and categories.
• Strategic recommendations to improve sales performance.

■■ Tools & Skills Used

SQL Server | Data Cleaning | Aggregation Functions | Joins | Window Functions | Business Analysis