WEEK 2: Superstore Dataset - SQL Exploratory Data Analysis

This document contains beginner-to-intermediate SQL queries executed on the Superstore dataset.
The queries focus on:
- Sales, profit, and discount patterns
- Regional and segment-based analysis
- Product-level performance insights

Tools Used: MySQL (via Workbench or equivalent)
Dataset: Superstore (Cleaned version)

Step 2: Basic SELECT Practice

```
-- View all records from the table
SELECT * FROM sample_superstore;

-- Select specific columns (e.g., Order ID, Sales, Profit)
SELECT order_ID, Sales, Profit FROM sample_superstore;

-- Filter records using WHERE (e.g., orders from 'West' region)
SELECT * FROM sample_superstore WHERE region = 'West';
```

Step 3: Sorting and Limiting

```
-- Sort products by highest profit
SELECT product_name, profit FROM sample_superstore ORDER BY profit DESC LIMIT 10;

-- Get the top 5 profitable states
SELECT state, profit FROM sample_superstore ORDER BY profit DESC LIMIT 5;

-- Get the bottom 5 products by sales
SELECT sales, profit FROM sample_superstore ORDER BY sales ASC LIMIT 5;
```

Step 4: Aggregation & Grouping

-- Total sales and profit by Region

SELECT SUM(sales) AS total_sales, SUM(profit) AS total_profit, region FROM sample_superstore GROUP BY region;

-- Total profit by Category and Sub-Category

SELECT SUM(profit) AS total_profit, category, sub_category FROM sample_superstore GROUP BY category, sub_category ORDER BY total_profit DESC;

-- Average discount by Segment

SELECT segment, AVG(discount) AS avg_discount FROM sample_superstore GROUP BY segment ORDER BY avg_discount DESC;

-- Count of orders per Ship Mode

SELECT ship_mode, COUNT(order_id) AS total_orders FROM sample_superstore GROUP BY ship_mode ORDER BY total_orders DESC;