Comprehensive Sales Data Analysis Using SQL

This project demonstrates end-to-end data analysis using SQL on a Data Warehouse environment containing three main tables: **dim_customers**, **dim_products**, and **fact_sales**.

The analysis covers multiple stages:

1. **Data Exploration:**
    - Explored database objects and structures.
    - Identified countries, product categories, and time ranges of available sales data.
    - Determined the age range of customers and their demographic distributions.
2. **Key Business Metrics:**
    - Calculated total sales, total quantity sold, total customers, average selling price, and total orders.
    - Created a consolidated metrics report summarizing all KPIs.
3. **Measures & Dimensions Analysis:**
    - Analyzed total customers by country and gender.
    - Measured product performance by category, subcategory, and revenue contribution.
    - Calculated total revenue generated by each customer and each region.
4. **Ranking & Performance Analysis:**
    - Identified top-performing and low-performing products and subcategories based on total revenue.
    - Ranked customers by total revenue and number of orders.
    - Discovered insights into customer purchasing behavior and market performance.

Outcome:
The analysis provided a complete understanding of sales distribution, customer behavior, and product performance. These insights can help management optimize product strategies, identify key markets, and enhance overall business performance.

Tools Used:

- Microsoft SQL Server
- SQL (Window Functions, Aggregations, Joins, Ranking)