TASK 6 SUMMARY

Task Name: Sales Trend Analysis Using SQL Aggregations
Dataset Used: online_sales table
Columns: Order_ID, Order_Date, CustomerName, State, City

Objective

The objective of Task 6 is to analyze sales trends by applying SQL aggregation functions such as COUNT(), GROUP BY, YEAR(), and MONTH(). Since the dataset contains order details without revenue information, the analysis focuses on **order volume trends**.

Key Operations Performed

1. Monthly Order Analysis

- Extracted **Year** and **Month** from Order_Date
- Counted monthly number of orders using:
  COUNT(DISTINCT Order_ID)

2. Year-Specific Order Analysis

- Filtered data for a selected year (2018)
- Showed monthly order distribution for that year.

3. Yearly Order Summary

- Calculated the total number of orders per year.

4. Top 3 Performing Months

- Identified the months with the highest order count.

5. Trend for a Specific Month Across Years

- Extracted how a specific month (e.g., March) performed over different years.

SQL Server Functions Used

- YEAR(Order_Date)
- MONTH(Order_Date)
- COUNT(DISTINCT Order_ID)
- GROUP BY
- ORDER BY

Outcome

This task helped in understanding:

- How to group data by year and month
- How to count unique orders
- How to generate time-based trends
- How to perform basic sales analytics even without revenue column

This analysis provides insights into:

- Order volume seasonality
- Monthly order patterns
- Best-performing months