-- Step 1: Create Database

CREATE DATABASE sales\_trend\_analysis;

-- Step 2: Use the Database

USE sales\_trend\_analysis;

-- Step 3: Create Table

CREATE TABLE online\_sales (

order\_id INT PRIMARY KEY,

order\_date DATE NOT NULL,

amount DECIMAL(10,2) NOT NULL,

product\_id INT

);

-- Step 4: Insert Sample Data

INSERT INTO online\_sales (order\_id, order\_date, amount, product\_id) VALUES

(1, '2023-01-15', 120.50, 101),

(2, '2023-01-20', 220.00, 102),

(3, '2023-02-10', 150.75, 103),

(4, '2023-02-15', 90.00, 104),

(5, '2023-03-05', 300.50, 101),

(6, '2023-03-15', 80.00, 105),

(7, '2023-04-12', 450.25, 106),

(8, '2023-04-18', 175.00, 107),

(9, '2023-05-01', 230.00, 108),

(10, '2023-05-07', 210.75, 109),

(11, '2023-06-03', 120.00, 110),

(12, '2023-06-11', 330.00, 111),

(13, '2022-11-25', 400.00, 112),

(14, '2022-12-01', 250.00, 113),

(15, '2022-12-15', 600.00, 114),

(16, '2022-10-10', 180.00, 115),

(17, '2022-09-12', 220.00, 116),

(18, '2022-08-18', 500.00, 117);

-- Step 5: Sales Trend Analysis

-- 5.1 Monthly Revenue and Order Volume

SELECT

YEAR(order\_date) AS year,

MONTH(order\_date) AS month,

SUM(amount) AS total\_revenue,

COUNT(DISTINCT order\_id) AS total\_orders

FROM online\_sales

GROUP BY year, month

ORDER BY year, month;

-- 5.2 Yearly Revenue Summary

SELECT

YEAR(order\_date) AS year,

SUM(amount) AS yearly\_revenue

FROM online\_sales

GROUP BY year

ORDER BY yearly\_revenue DESC;

-- 5.3 Top 3 Months by Revenue

SELECT

CONCAT(YEAR(order\_date), '-', LPAD(MONTH(order\_date), 2, '0')) AS month,

SUM(amount) AS monthly\_revenue

FROM online\_sales

GROUP BY YEAR(order\_date), MONTH(order\_date)

ORDER BY monthly\_revenue DESC

LIMIT 3;

-- 5.4 Average Order Amount by Month

SELECT

YEAR(order\_date) AS year,

MONTH(order\_date) AS month,

AVG(amount) AS avg\_order\_value

FROM online\_sales

GROUP BY year, month

ORDER BY year, month;









