```sql
-- The USE command in SQL select the specific database,
--  The SELECT command retrieves specific data from a database table based on defined
criteria.
USE sales;
SELECT * FROM sales;
SELECT * FROM customer;

-- Q1.Write a query to find total sales per city.
SELECT City, SUM(Amount) AS Total_sales
FROM Sales
INNER JOIN customer ON sales.CustomerID= customer.CustomerID
GROUP BY City
ORDER BY Total_sales DESC;

-- SQL Query Result: City-Wise Sales Analysis
-- The SQL query describes about total sales in different cities.
-- which are been ranked from highest to lowest.
-- Mumbai has the best sales (â,¹3,650), followed by Delhi and Bangalore.
-- Kolkata and Chennai have lower sales, (fewer purchases or lower demand there).
-- INSIGHTS-
-- Mumbai is performing exceptionally well, making it an ideal city for further investment
and expansion.
-- Delhi and Bangalore have solid sales, but strategic promotions could enhance their
market potential.
-- Kolkata and Chennai require more attention, with targeted marketing and a deeper
understanding of customer preferences to drive growth.

-- Q2. Find the top 3 customers by total sales amount.
SELECT CustomerName, SUM(Amount)  AS Total_sales
FROM sales
INNER JOIN customer On sales.customerID = customer.customerID
GROUP BY CustomerName
ORDER BY Total_sales DESC
LIMIT 3;

-- INSIGHTS
-- Bob, Alice, and Frank are the top three customers based on total sales.
-- Analyzing their purchase frequency can reveal whether they are consistent buyers or
occasional high spenders.



-- 3Q. Display monthly sales (sum of Amount grouped by month).
SELECT
  DATE_FORMAT(STR_TO_DATE(SaleDate, '%d-%m-%Y'), '%M-%Y') AS Month,
   SUM(Amount) AS Total_monthly_sales
FROM sales
GROUP BY DATE_FORMAT(STR_TO_DATE(SaleDate, '%d-%m-%Y'), '%M-%Y');

-- INSIGHTS
-- September 2023 had the highest sales, totaling â,¹3900, showing a 36.8% increase from
August.
-- October 2023 sales dropped to â,¹2100, which is a 46.2% decrease from September.
-- September: â,¹3900 (Sales peak)
-- October: â,¹2100 (Sharp decline)
```

```sql
-- Q4.Write a query to find customers who haven't made any purchase.
SELECT Customer.CustomerID, Customer.CustomerName
FROM Customer
LEFT JOIN Sales ON Customer.CustomerID = Sales.CustomerID
WHERE Sales.CustomerID IS NULL;

-- INSIGHTS
-- A total of 5 customers have not made any purchase.
-- This list can help in customer re-engagement campaigns:
-- Email follow-ups
-- Discounts for first purchase
-- Calls or feedback forms
-- These customers are potential opportunities for increasing future revenue.

-- Q5.Find the average age of customers per city.
SELECT * FROM customer;
SELECT City, AVG(Age) AS Average_Age_of_customer
FROM Customer
GROUP BY City
ORDER BY Average_Age_of_customer;

-- INSIGHTS
-- Kolkata has the youngest customer base with an average age of 27.5 years.
-- Chennai has the oldest average customer age at 41 years.
-- There is a noticeable age gap of ~13.5 years between Kolkata and Chennai.
-- Mumbai and Delhi have customers in their mid-30s, showing a mature but active
demographic.
-- Bangalore lies in the middle, possibly reflecting a balanced mix of young professionals
and older residents.
```