SQL Practice Questions

■ Medium Level (1–10)

1. Write a query to find the second highest salary in an employee table.
2. Fetch all employees whose names contain the letter 'a' exactly twice.
3. How do you retrieve only duplicate records from a table?
4. Write a query to calculate the running total of sales by date.
5. Find employees who earn more than the average salary in their department.
6. Write a query to find the most frequently occurring value in a column.
7. Fetch records where the date is within the last 7 days from today.
8. Write a query to count how many employees share the same salary.
9. How do you fetch the top 3 records for each group in a table?
10. Retrieve products that were never sold (hint: use LEFT JOIN).

■ Challenging Level (1–10)

1. Retrieve customers who made their first purchase in the last 6 months.
2. How do you pivot a table to convert rows into columns?
3. Write a query to calculate the percentage.
4. Find the median salary of employees in a table.
5. Fetch all users who logged in consecutively for 3 days or more.
6. Write a query to delete duplicate rows while keeping one occurrence.
7. Create a query to calculate the ratio of sales between two categories.
8. How would you implement a recursive query to generate a hierarchical structure?
9. Write a query to find gaps in sequential numbering within a table.
10. Split a comma-separated string into individual rows using SQL.

■ Advanced Problem-Solving (1–5)

1. Rank products by sales in descending order for each region.
2. Fetch all employees whose salaries fall within the top 10% of their department.
3. Identify orders placed during business hours (e.g., 9 AM to 6 PM).
4. Write a query to get the count of users active on both weekdays and weekends.
5. Retrieve customers who made purchases across at least three different categories.