

Sample SQL Practice Questions

A mix of beginner to advanced questions

Beginner

1. Write a query to find all employees who joined in the last 6 months.
2. Find the total number of orders placed by each customer.
3. Write a query to list products with a price greater than \$50, sorted from highest to lowest.
4. Find all records in orders where the discount column is NULL.

Intermediate — Joins

5. Given employees and departments tables, write a query to find the department name for each employee.
6. Write a query using a LEFT JOIN to find customers who have never placed an order.
7. Find products that were never sold (using an anti-join pattern).

Intermediate — Aggregation

8. Find the top 3 highest-selling products by total revenue.
9. Write a query with GROUP BY and HAVING to find departments with more than 10 employees.
10. Calculate the average order value per month.

Advanced — Window Functions

11. Use ROW_NUMBER() to find the most recent transaction for each customer.
12. Use RANK() to rank salespeople by total sales within each region.
13. Use LAG() to calculate the month-over-month change in revenue.
14. Write a query to compute a running total of sales by date.

Advanced — CTEs & Optimization

15. Rewrite a nested subquery as a CTE and explain why the CTE version is more readable.
16. Given a large table that's slow to query, name two things you'd check to speed it up.