Debug With Shubham Notes

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NQT 2025

Top-25 SQL Interview Question & Ans

Ninja,Digital,Prime Role 2025

25 Most Important SQL Queries to Crack Any In interview 2025

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Table Structure Used in Examples

Basic SQL Queries

JOINs

Filtering and Sorting

Aggregations & Subqueries

Nested Queries / Correlated Subqueries

Window Functions (Advanced)

Set Operators

String & Date Functions

Practice-Style Queries

1. Get all employee records.
```
SELECT * FROM Employees;
```

2. Get names of employees from the IT department.
```
SELECT Name FROM Employees WHERE Department = 'IT';
```

3. Get employees with salary greater than 55000.
```
SELECT * FROM Employees WHERE Salary > 55000;
```

4. Count number of employees in each department.
```
SELECT Department, COUNT(*) FROM Employees GROUP BY Department;
```

5. Get maximum salary in each department.
```
SELECT Department, MAX(Salary) FROM Employees GROUP BY Department;
```

6. Get employee names along with their department names.
```
SELECT E.Name, D.DeptName FROM Employees E
JOIN Departments D ON E.Department = D.DeptName;
```

7. Find employees with no valid department in the Departments table.
```
SELECT E.Name FROM Employees E LEFT JOIN Departments D ON E
```

8. List top 3 highest-paid employees.
```
SELECT * FROM Employees ORDER BY Salary DESC LIMIT 3;
```

9. Get employees with salary between 50000 and 60000.

```
SELECT * FROM Employees WHERE Salary BETWEEN 50000 AND 60000;
```

10. List departments with more than one employee.

```
SELECT Department, COUNT(*) FROM Employees GROUP BY Department HAVING COUNT(*) > 1;
```

11. Get the average salary of all employees.

```
SELECT AVG(Salary) FROM Employees;
```

12. Find employees earning more than the average salary.

```
SELECT * FROM Employees WHERE Salary > (SELECT AVG(Salary) FROM Employees);
```

13. Get the department with the highest total salary.

```
SELECT Department FROM Employees GROUP BY Department ORDER BY SUM(Salary) DESC LIMIT 1;
```

14. Find the highest-paid employee in each department.

```
SELECT * FROM Employees E1 WHERE Salary = (
SELECT MAX(Salary) FROM Employees E2 WHERE E1.Department = E2.Department);
```

15. Find employees who earn the highest salary overall.

```
SELECT * FROM Employees WHERE Salary = (SELECT MAX(Salary) FROM Employees);
```

16. Rank employees by salary within departments.

```
SELECT Name, Department, Salary,
RANK() OVER (PARTITION BY Department ORDER BY Salary DESC) AS SalaryRank FROM Employees;
```

17. Show cumulative salary by department.

```
SELECT Name, Department, Salary,
SUM(Salary) OVER (PARTITION BY Department ORDER BY Salary) AS CumSalary FROM Employees;
```

18. Get departments listed in Employees but not in Departments.

```
SELECT DISTINCT Department FROM Employees WHERE Department NOT IN (SELECT DeptName FROM
Departments);
```

19. Get employees whose names start with 'A'.

```
SELECT * FROM Employees WHERE Name LIKE 'A%';
```

20. Format salary with a currency symbol (MySQL).

```
SELECT Name, CONCAT('$', FORMAT(Salary, 2)) AS Salary FROM Employees;
```

21. Find the second highest salary.

```
SELECT MAX(Salary) FROM Employees WHERE Salary < (SELECT MAX(Salary) FROM Employees);
```

22. Find duplicate department entries in Employees.

```
SELECT Department, COUNT(*) FROM Employees GROUP BY Department HAVING COUNT(*) > 1;
```

23. Order employees by department and then salary descending.

```
SELECT * FROM Employees ORDER BY Department, Salary DESC;
```

24. List all unique departments across Employees and Departments.

```
SELECT Department FROM Employees UNION SELECT DeptName FROM Departments;
```

25. List departments where no employee works.

```
SELECT DeptName FROM Departments WHERE DeptName NOT IN (SELECT Department FROM Employees);
```