**SQL Answers**

**1. Fetch all records from employees:**

sql

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SELECT \* FROM employees;

**2. Names of employees with salary > 50,000:**

sql

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SELECT name FROM employees WHERE salary > 50000;

**3. All distinct job roles:**

sql

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SELECT DISTINCT job\_role FROM employees;

**4. Total number of employees:**

sql

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SELECT COUNT(\*) AS total\_employees FROM employees;

**5. Employees whose names start with 'A':**

sql

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SELECT \* FROM employees WHERE name LIKE 'A%';

**6. Employees who joined between 2022-01-01 and 2023-01-01:**

sql

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SELECT \* FROM employees

WHERE joining\_date BETWEEN '2022-01-01' AND '2023-01-01';

**7. Highest salary:**

sql

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SELECT MAX(salary) AS highest\_salary FROM employees;

**8. Second highest salary:**

sql

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SELECT MAX(salary) AS second\_highest\_salary

FROM employees

WHERE salary < (SELECT MAX(salary) FROM employees);

**9. Average salary of employees in IT department:**

sql

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SELECT AVG(salary) AS average\_salary

FROM employees

WHERE department\_id = (SELECT id FROM departments WHERE name = 'IT');

**10. Employees grouped by department with count:**

sql

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SELECT d.name AS department\_name, COUNT(e.id) AS employee\_count

FROM employees e

JOIN departments d ON e.department\_id = d.id

GROUP BY d.name;

**11. Employee names in descending order:**

sql

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SELECT name FROM employees ORDER BY name DESC;

**12. Employees with NULL manager\_id:**

sql

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SELECT \* FROM employees WHERE manager\_id IS NULL;

**13. Employees with salary between 30,000 and 60,000:**

sql

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SELECT \* FROM employees

WHERE salary BETWEEN 30000 AND 60000;

**14. Update salary of employee with id = 101:**

sql

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UPDATE employees SET salary = 75000 WHERE id = 101;

**15. Delete employees where department is HR:**

sql

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DELETE FROM employees

WHERE department\_id = (SELECT id FROM departments WHERE name = 'HR');

**16. Insert a new employee:**

sql

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INSERT INTO employees (id, name, salary, job\_role, department\_id, manager\_id, joining\_date)

VALUES (111, 'Kevin', 58000, 'Support Engineer', 2, 102, '2025-05-01');

**17. Create departments table (already done, shown again):**

sql

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CREATE TABLE departments (

id INT PRIMARY KEY,

name VARCHAR(100) NOT NULL

);

**18. Join employees and departments using department\_id:**

sql

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SELECT e.id, e.name, e.job\_role, d.name AS department\_name

FROM employees e

JOIN departments d ON e.department\_id = d.id;

**19. Maximum, minimum, and average salary:**

sql

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SELECT

MAX(salary) AS max\_salary,

MIN(salary) AS min\_salary,

AVG(salary) AS avg\_salary

FROM employees;

**20. Count of employees per job role:**

sql

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SELECT job\_role, COUNT(\*) AS count\_per\_role

FROM employees

GROUP BY job\_role;

**21. Top 5 salaries:**

sql

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SELECT \* FROM employees

ORDER BY salary DESC

LIMIT 5;

**22. Rename column name to full\_name (standard SQL):**

sql

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ALTER TABLE employees RENAME COLUMN name TO full\_name;

**23. Add email column to employees table:**

sql

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ALTER TABLE employees ADD COLUMN email VARCHAR(100);

**24. Remove phone\_number column (assuming it exists):**

sql

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ALTER TABLE employees DROP COLUMN phone\_number;

**25. Display first 10 rows from employees table:**

sql

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SELECT \* FROM employees LIMIT 10;