

SQL TASK

1. Select All Records

-- Retrieve all records from a table

```
SELECT * FROM employees;
```

2. Select Specific Columns

-- Fetch only name and salary from the employees table

```
SELECT name, salary FROM employees;
```

3. Filtering Rows

-- Get employees with salary > 50000

```
SELECT * FROM employees WHERE salary > 50000;
```

4. Sorting Results

-- Sort employees by salary descending

```
SELECT * FROM employees ORDER BY salary DESC;
```

5. Pattern Matching

-- Find employees whose names start with 'A'

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

6. Count Rows

-- Count total number of employees

```
SELECT COUNT(*) FROM employees;
```

7. Grouping Data

-- Get average salary department-wise

```
SELECT department, AVG(salary) FROM employees GROUP BY department;
```

8. Having Clause

-- Show departments with avg salary above 60000

```
SELECT department, AVG(salary)
FROM employees
GROUP BY department
HAVING AVG(salary) > 60000;
```

9. Inner Join

-- Combine employee and department data where IDs match

```
SELECT e.name, d.department_name
FROM employees e
INNER JOIN departments d
ON e.dept_id = d.id;
```

10. Left Join

-- Include all employees even if department missing

```
SELECT e.name, d.department_name
FROM employees e
LEFT JOIN departments d
ON e.dept_id = d.id;
```

11. Subquery

-- Get employees who earn more than average salary

```
SELECT name, salary
FROM employees
WHERE salary > (SELECT AVG(salary) FROM employees);
```

12. Insert Data

-- Add a new employee record

```
INSERT INTO employees (name, department, salary)
```

```
VALUES ('John', 'HR', 55000);
```

13. Update Data

```
-- Update salary of employee named John
```

```
UPDATE employees SET salary = 60000 WHERE name = 'John';
```

14. Delete Data

```
-- Delete record of employee named John
```

```
DELETE FROM employees WHERE name = 'John';
```

15. Create Table

```
-- Create a new table for employees
```

```
CREATE TABLE employees (
```

```
    id INT PRIMARY KEY,
```

```
    name VARCHAR(50),
```

```
    department VARCHAR(50),
```

```
    salary DECIMAL(10,2)
```

```
);
```