🧾 Sample Data in Table: `employees`

emp_id	emp_name	department	salary
1	Amit	IT	50000
2	Rahul	IT	55000
3	Neha	IT	60000
4	Meena	HR	45000
5	Raj	HR	48000
6	Alok	Finance	52000
7	Ramesh	Finance	53000
8	Vikas	IT	62000
9	Suman	HR	46000

🔷 1. Show All Databases

```
sql
CopyEdit
SHOW DATABASES;
```

🧠 **Explanation**: System mein available saari databases ko list karta hai.

🔷 2. Select Database

```
sql
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USE company_db;
```

🧠 **Explanation**: Us database ko active banata hai jisme kaam karna hai.

🔷 3. Show Tables

```
sql
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SHOW TABLES;
```

🧠 **Explanation**: Current database ke andar available tables dikhata hai.

🔷 4. Select All Records

```
sql
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SELECT * FROM employees;
```

🧠 **Explanation**: employees table ke saare rows aur columns dikhata hai.

✅ **Output**:

emp_id	emp_name	department	salary
1	Amit	IT	50000
...	...	...	...

🔷 5. WHERE Clause – Filter by Salary

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

🧠 **Explanation**: Sirf un employees ko dikhata hai jinki salary 50,000 se zyada hai.

✅ **Output**:

emp_id	emp_name	department	salary
2	Rahul	IT	55000
3	Neha	IT	60000
6	Alok	Finance	52000
7	Ramesh	Finance	53000
8	Vikas	IT	62000

🔷 6. BETWEEN Clause – Range Filter

```
sql
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SELECT * FROM employees WHERE salary BETWEEN 40000 AND 50000;
```

🧠 **Explanation**: Sirf un logon ko dikhata hai jinki salary 40k se 50k ke beech hai (inclusive).

✅ **Output**:

emp_id	emp_name	department	salary
1	Amit	IT	50000
4	Meena	HR	45000
5	Raj	HR	48000
9	Suman	HR	46000

🔷 7. IN Clause – Specific IDs

```
sql
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SELECT * FROM employees WHERE emp_id IN (1, 5);
```

🧠 **Explanation**: Sirf emp_id = 1 aur 5 waale employees show karega.

✅ **Output**:

emp_id	emp_name	department	salary
1	Amit	IT	50000
5	Raj	HR	48000

🔷 8. ORDER BY – Salary Descending

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

🧠 **Explanation**: Salary ke hisaab se records ko highest se lowest tak sort karega.

✅ **Output** (Top 3 rows):

emp_id	emp_name	department	salary
8	Vikas	IT	62000
3	Neha	IT	60000
2	Rahul	IT	55000

🔷 9. LIKE Clause – emp_name Starts with 'A'

```
sql
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```

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

🧠 **Explanation**: Sirf un logon ke naam dikhata hai jo ‘A’ se start hote hain.

✅ **Output**:

emp_id	emp_name	department	salary
1	Amit	IT	50000
6	Alok	Finance	52000

🔷 10. LIKE Clause – emp_name Ends with ‘n’

```
sql
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SELECT * FROM employees WHERE emp_name LIKE '%n';
```

✅ **Output**:

emp_id	emp_name	department	salary
9	Suman	HR	46000

🔷 11. LIKE Clause – emp_name has ‘n’ at 3rd Position

```
sql
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SELECT * FROM employees WHERE emp_name LIKE '__n%';
```

🧠 **Explanation**: `__n%` matlab 3rd character ‘n’ hona chahiye.

✅ **Output**:

emp_id	emp_name	department	salary
9	Suman	HR	46000

🔷 12. MAX(), MIN(), AVG() – Aggregates

```
sql
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SELECT MAX(salary), MIN(salary), AVG(salary) FROM employees;
```

✅ **Output**:

MAX(salary)	MIN(salary)	AVG(salary)
62000	45000	52444.44

🧠 **Explanation**:

- MAX = sabse zyada salary
- MIN = sabse kam salary
- AVG = average salary of all employees

🔷 13. Subquery – Highest Salary Employee

```
sql
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SELECT * FROM employees
WHERE salary = (SELECT MAX(salary) FROM employees);
```

✅ **Output**:

emp_id	emp_name	department	salary
8	Vikas	IT	62000

🔷 14. LIMIT – First 3 Records

```
sql
CopyEdit
SELECT * FROM employees LIMIT 3;
```

🧠 **Explanation**: Table ke top 3 rows show karega.

✅ **Output**:

emp_id	emp_name	department	salary
1	Amit	IT	50000
2	Rahul	IT	55000
3	Neha	IT	60000