DAY 10 – SQL JOINS (FULL NOTES)

1. What is SQL JOIN?

A SQL JOIN is used to combine rows from two or more tables based on a related column between them.

2. Why JOINs are Important

• Real-world databases store data in multiple tables.
• JOINs help retrieve meaningful information.
• Very important for interviews and analytics.

3. Types of SQL JOINs

INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL JOIN

4. INNER JOIN

Returns only matching rows from both tables. Non-matching rows are excluded.

5. LEFT JOIN

Returns all rows from left table and matching rows from right table. Non-matching right values become NULL.

6. RIGHT JOIN

Returns all rows from right table and matching rows from left table. Non-matching left values become NULL.

7. FULL JOIN

Returns all rows from both tables. MySQL uses UNION of LEFT and RIGHT JOINs to achieve this.

8. JOIN Comparison

JOIN	Result
INNER	Common rows only

LEFT	All left + matching right
RIGHT	All right + matching left
FULL	All rows from both tables

9. Interview Tips

INNER = Common, LEFT = Left full, RIGHT = Right full, FULL = Everything