* Joins
* JOIN :-

In MySQL, a JOIN is used two combine rows from Two or more tables into a single result set based on a related column between them. There are several types of JOINS available in MySQL :-

1. INNER JOIN :-

Returns only the rows that have matching values in both tables.

2. LEFT JOIN :-

Returns all the rows from the left table and the matching rows from the right table. If there is no match, the result will contain NULL values for the columns of the right table.

3. RIGHT JOIN :-

Returns all the rows from the right table and the matching rows from the left table. If there is no match, the result will contain NULL values for the columns of the left table.

4. FULL JOIN (OUTER JOIN) :-

Return all the rows from both tables. If there is no match, the result will contain NULL values for the columns of the table that does not have a match,

→ INNER JOIN

SELECT columns FROM table1 INNER JOIN table2 ON table1.column = table2.column;

→ **LEFT JOIN :—**

SELECT columns FROM table1 LEFT JOIN table2 ON table1.column = table2.column.

→ **RIGHT JOIN :—**

SELECT columns FROM table1 RIGHT JOIN table2 ON table1.column = table.column

* **Cartesian Product :—**

Cartesian Product is the result of combining every row of one table with every row of another table, without any conditions or restrictions. It is also known as cross Join.

To perform a Cartesian product in MySQL, we can use the 'CROSS JOIN' clause in our SQL statement.

SELECT * FROM table1 CROSS JOIN table2;

* **UNION :—**

The 'UNION' operator is used to combine the result sets of two or more 'SELECT' statements into a single result set. The 'UNION' operator removes duplicate rows b/w the various 'SELECT' statements.

SELECT column1, column2,.... FROM table1 UNION

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* Natural JOIN :—

It is a type of join operation that allows us to join two tables based on their common column names. The 'NATURAL JOIN' automatically matches the columns in both tables with the same name and returns a result that includes only the matching rows.

→ SELECT column1, column2, ... FROM table1 NATURAL JOIN table2.

Example:—

SELECT employees.name, departments.depart_name FROM employees NATURAL JOIN departments;

* SELF JOIN :—

It is a join operation where a table is joined with itself. In other words, a self join is a way to combine data from the same table using a join statement.

→ SELECT e.name As emp_name , m.name As manager_name FROM employees e JOIN employees m ON e.manager_id = m.employee_id.