

TASK 1 : JOINS PRACTICE

1. INNER JOIN

- Returns only the matching rows from both tables.
- Excludes rows where there is no match.

Eg: SELECT employees.name, departments.department_name

FROM employees

INNER JOIN departments ON employees.department_id = departments.id;

2. LEFT JOIN (LEFT OUTER JOIN)

- Returns all rows from the left table and the matching rows from the right table.
- If there's no match, NULL values are returned for columns from the right table.

Eg: SELECT employees.name, departments.department_name

FROM employees

LEFT JOIN departments ON employees.department_id = departments.id;

3. RIGHT JOIN (RIGHT OUTER JOIN)

- Returns all rows from the right table and the matching rows from the left table.
- If there's no match, NULL values are returned for columns from the left table.

Eg: SELECT employees.name, departments.department_name

FROM employees

RIGHT JOIN departments ON employees.department_id = departments.id;

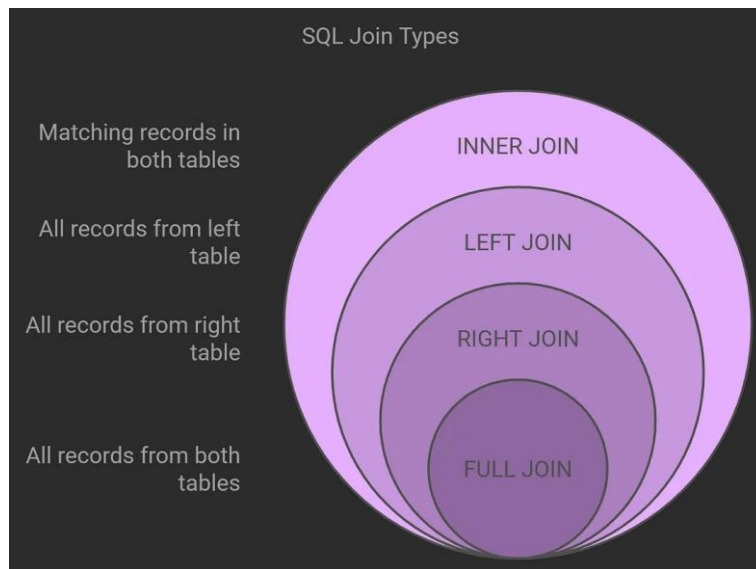
4. FULL JOIN (FULL OUTER JOIN)

- Returns all rows when there is a match in either left or right table.
- If there's no match, NULL values appear for the non-matching side.

Eg: SELECT employees.name, departments.department_name

FROM employees

FULL JOIN departments ON employees.department_id = departments.id;



EXAMPLE:

Assume we have two tables:

Employees:

<i>emp_id</i>	<i>name</i>	<i>dept_id</i>
<i>1</i>	<i>Alice</i>	<i>10</i>
<i>2</i>	<i>Bob</i>	<i>20</i>
<i>3</i>	<i>Carol</i>	<i>30</i>

Departments:

<i>dept_id</i>	<i>dept_name</i>
<i>10</i>	<i>HR</i>
<i>20</i>	<i>IT</i>
<i>40</i>	<i>Finance</i>

CODE:

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-- INNER JOIN (only matching records)
SELECT e.emp_id, e.name, d.dept_name
FROM Employees e
INNER JOIN Departments d ON e.dept_id = d.dept_id;

-- LEFT JOIN (all from Employees, matching from Departments)
SELECT e.emp_id, e.name, d.dept_name
FROM Employees e
LEFT JOIN Departments d ON e.dept_id = d.dept_id;

-- RIGHT JOIN (all from Departments, matching from Employees)
SELECT e.emp_id, e.name, d.dept_name
FROM Employees e
RIGHT JOIN Departments d ON e.dept_id = d.dept_id;

-- FULL JOIN (all records from both tables)
SELECT e.emp_id, e.name, d.dept_name
FROM Employees e
FULL JOIN Departments d ON e.dept_id = d.dept_id;
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