



DBMS Lab Task

WEEK-6 OUTER JOINS

The SQL **JOIN** joins two tables based on a common column, and selects records that have matching values in these columns.

The SQL **LEFT JOIN** joins two tables based on a common column, and selects records that have matching values in these columns and remaining rows from the left table.

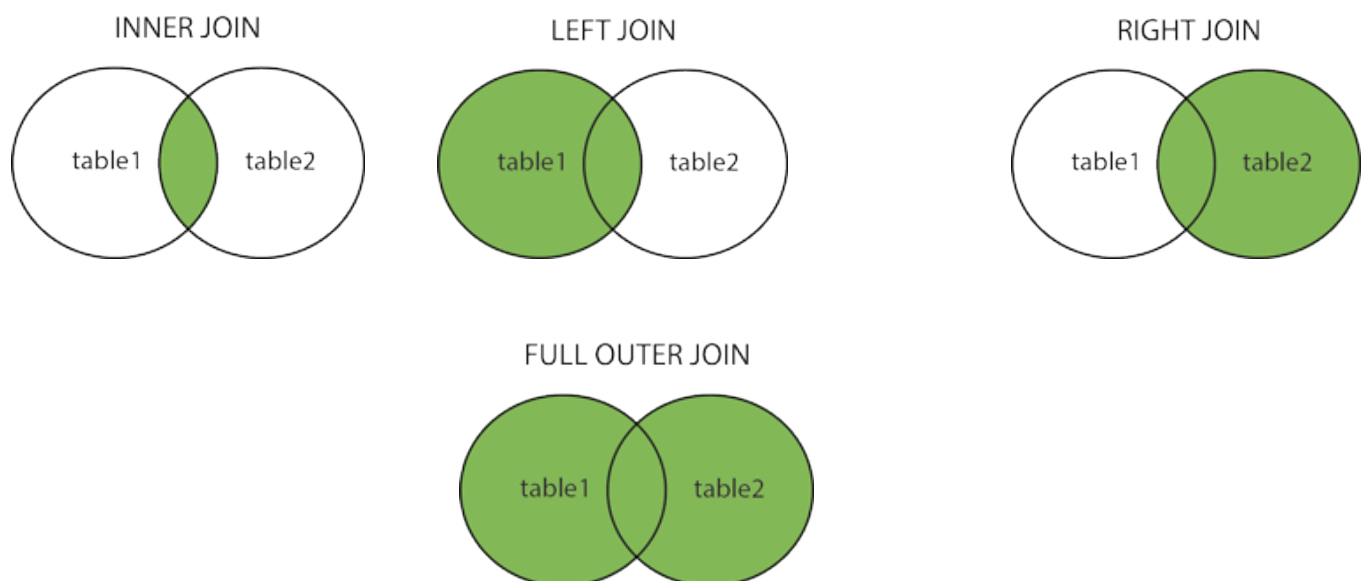
The SQL **RIGHT JOIN** joins two tables based on a common column, and selects records that have matching values in these columns and remaining rows from the right table.

The SQL **FULL OUTER JOIN** joins two tables based on a common column, and selects records that have matching values in these columns and remaining rows from both of the tables.

Different Types of SQL JOINS

Here are the different types of the JOINS in SQL:

- **(INNER) JOIN** or **EQUI JOIN**: Returns records that have matching values in both tables
- **LEFT (OUTER) JOIN**: Returns all records from the left table, and the matched records from the right table
- **RIGHT (OUTER) JOIN**: Returns all records from the right table, and the matched records from the left table
- **FULL (OUTER) JOIN**: Returns all records when there is a match in either left or right table





राष्ट्रीय प्रौद्योगिकी संस्थान आंध्र प्रदेश

NATIONAL INSTITUTE OF TECHNOLOGY ANDHRA PRADESH

Near National Highway No. 16, Kadakatla, Tadepalligudem – 534101
West Godavari District, Andhra Pradesh, India.

LEFT OUTER JOIN:

Syntax :

```
SELECT column_list FROM table1 LEFT JOIN table2 ON [(join_condition)]
```

Ex 1:

```
select * from emp e LEFT JOIN dept d on e.empno=d.deptno;
```

Ex 2:

```
SELECT Customers.customer_id, Customers.first_name, Orders.amount FROM Customers  
LEFT JOIN Orders ON Customers.customer_id = Orders.customer;
```

RIGHT OUTER JOIN:

Syntax :

```
SELECT column_list FROM table1 RIGHT JOIN table2 ON [(join_condition)]
```

Ex 1:

```
select * from emp e RIGHT JOIN dept d on e.empno=d.deptno;
```

Ex 2:

```
SELECT Customers.customer_id, Customers.first_name, Orders.amount FROM Customers  
RIGHT JOIN Orders ON Customers.customer_id = Orders.customer;
```

FULL OUTER JOIN:

Syntax :

```
SELECT column_list FROM table1 FULL OUTER JOIN table2 ON [(join_condition)]
```

Ex 1:

```
select * from emp e FULL OUTER JOIN dept d on e.empno=d.deptno;
```

Ex 2:

```
SELECT Customers.customer_id, Customers.first_name, Orders.amount FROM Customers  
FULL OUTER JOIN Orders ON Customers.customer_id = Orders.customer;
```



राष्ट्रीय प्रौद्योगिकी संस्थान आंध्र प्रदेश
NATIONAL INSTITUTE OF TECHNOLOGY ANDHRA PRADESH

Near National Highway No. 16, Kadakatla, Tadepalligudem – 534101
West Godavari District, Andhra Pradesh, India.

1. Create a tables called Dept, Employee and Answer the following Questions using OUTER JOINS.

Note: deptno in employee table is foreign key references deptno in dept table

DEPTNO	DNAME	LOC
10	ACCOUNTING	NEW YORK
20	RESEARCH	DALLAS
30	SALES	CHICAGO
40	OPERATIONS	BOSTON

INSERT Following into dept table

50 HR California
60 Web&Network San Francisco

EMPNO	ENAME	JOB	HIREDATE	MGR	SAL	COMM	DEPTNO
7369	SMITH	CLERK	17-DEC-80	7902	800		20
7499	ALLEN	SALESMAN	20-FEB-81	7698	1600	300	30
7521	WARD	SALESMAN	22-FEB-81	7698	1250	500	30
7566	JONES	MANAGER	02-APR-81	7839	2975		20
7654	MARTIN	SALESMAN	28-SEP-81	7698	1250	1400	30
7698	BLAKE	MANAGER	01-MAY-81	7839	2850		30
7782	CLARK	MANAGER	09-JUN-81	7839	2450		10
7788	SCOTT	ANALYST	19-APR-87	7566	3000		20
7839	KING	PRESIDENT	17-NOV-81		5000		10
7844	TURNER	SALESMAN	08-SEP-81	7698	1500	0	30
7876	ADAMS	CLERK	23-MAY-87	7788	1100		20
7900	JAMES	CLERK	03-DEC-81	7698	950		30
7902	FORD	ANALYST	03-DEC-81	7566	3000		20
7934	MILLER	CLERK	23-JAN-82	7782	1300		10

INSERT following records into Employee table

7769 Sam Clerk 20-May-81 7839 2000 0 NULL
7469 Ram Analyst 10-June-82 7698 3000 0 NULL
7596 Rahul Clerk 13-Nov-81 7639 2500 200 NULL
7367 Rajesh Salesman 11-Aug-82 7769 3200 500 NULL
7473 Aman Analyst 07July-82 7839 2700 300 NULL
7639 Vishal Salesman 08-Dec-81 7473 2000 0 NULL



राष्ट्रीय प्रौद्योगिकी संस्थान आंध्र प्रदेश

NATIONAL INSTITUTE OF TECHNOLOGY ANDHRA PRADESH

Near National Highway No. 16, Kadakatla, Tadepalligudem – 534101
West Godavari District, Andhra Pradesh, India.

- a. Display All employee details with dept details including Employees who have not allotted with any deptno.
- b. Display employee details with dept details who have not allotted with any deptno Only.
- c. Display employees count who have not allotted with any deptno.
- d. Display All Clerks who donot have deptno having salary greater than 2000.
- e. Display employee details who have not allotted with any deptno and whose commission is null.
- f. Display All Salesman details who donot have deptno , joined in 1981.
- g. Display employee details who joined in 1981 and have not allotted with any deptno.
- h. Display sum of Salaries of employees who have not allotted with any deptno.
- i. Display All employee details with dept details including Dept details who do not have any employees.
- j. Display dept details including Dept details who do not have any employees Only.
- k. Display Employee name and empno who donot have any dept name and location.
- l. Display All employee details who have not allotted with any deptno and Dept details who don't have any employees.
- m. Count no of dept's who donot have any employees.
- n. Display deptno wise employee count including dept's who donot have employees.
- o. Display All Clerks details who have not allotted with any deptno and Dept details who don't have any employees.
- p. Display All Salesman details who have not allotted with any deptno and Dept details who don't have any employees.
- q. Display All Analysts who donot have deptno having salary less than 3000.