

2) Natural Join:

- It is a type of Join that automatically matches columns with the same in two tables being joined.
- A natural Join refers the Join condition based on the Column names that are present in both.
- eg.
SELECT * FROM Table 1 Natural Join Table 2;

3) INNER JOIN:

- Returns records that have matching values in both tables.
- eg. SELECT * FROM Table 2 WHERE
TABLE common = Table 2 Column;

3) LEFT OUTER JOIN

- Returns all records from left table & the matched records from the right table.
- eg.
SELECT * FROM Table 1 LEFT OUTER JOIN Table 2

4) RIGHT OUTER JOIN:

- Return all records from the right table & the matched records from the left table.
- SELECT * FROM Table 1 RIGHT OUTER JOIN Table 2
ON (Table 1 common Column = Table 2 common)

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DBMS Lab Assignment No-4

- Aim:
Design at least 10 SQL queries for suitable database of applⁿ using SQL DML statement all type of Join, sub query & view
- Objective:
To develop basic, intermediate & advanced Database programming skills.

• Theory:

SQL JOIN:

A JOIN clause is used to combine rows from two or more tables, based on a related column betⁿ them.

Different Types of SQL JOINS

i) Cross JOIN

- Returns the cartesian product of both tables i.e. it returns all possible combinatⁿ of rows from the tables.
 - Used when need to combine each row of one table with each row of another table.
- eg. ~~SELECT~~ * FROM Table 1. ~~Class~~ JOIN Table 2;

5) Right Outer Join

```
SELECT * FROM Emp Right Outer Join Dept  
ON (Emp dept-no = Dept dept-no);
```

6) FULL OUTER JOIN.

```
SELECT * FROM Employee Full Outer Join  
ON (Employee dept-no = Department dept-no);
```

SQL queries for

i) List of employee names of 'comp Department'

```
SELECT EmployeeName FROM employee  
WHERE Department = 'computer'
```

ii) Find the emp where salary above 50,000 at each Dept

```
SELECT EmployeeName, Department, salary  
FROM employee  
WHERE salary > 50,000  
ORDER BY Department;
```

iii) Find Department name of employee name Amit

```
SELECT Department  
FROM Employee  
WHERE EmployeeName = 'Amit'
```


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* Conclusion :-

Thus we have studied to use & implement various join operation that with nested queries

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5) FULL OUTER JOIN

- Return all records when there is a match in either left or right table.

- eg. `SELECT * FROM Table 1 FULL OUTER JOIN Table 2 ON (Table 1 common column = Table 2 common(column));`

Consider relational schema.

Employee (Empo, Ename, Deptno, salary)

Empo = DK, Deptno, Department (Deptno, Dname) = PK

Implementation of Join operation.

1) Cross Join:-

`SELECT * FROM Employee CROSS JOIN Department;`

2) Natural Join

`SELECT * FROM Employee NATURAL JOIN Department;`

3) INNER JOIN

`SELECT * FROM Employee, Department Where Employee Dept no = Department Deptno.`

4) Left Outer Join

`SELECT * FROM Employee LEFT OUTER JOIN Department ON (Employee Dept no = Department Dept no);`