DATABASE MANAGEMENT SYSTEM – DAY 05

SQL JOIN CLAUSE

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

Different Types of SQL JOINs

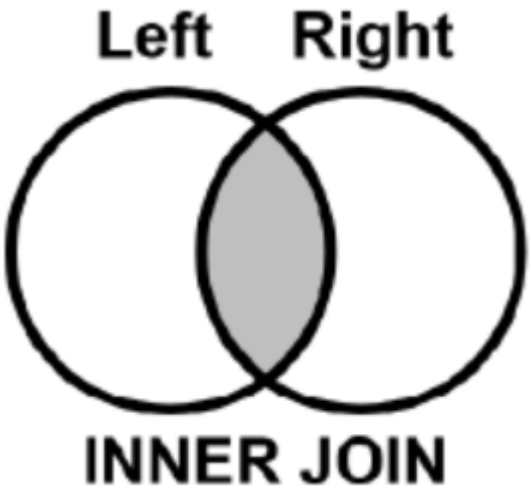
Here are the different types of the JOINs in SQL:

- `(INNER) 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

1) INNER JOIN

The `INNER JOIN` keyword selects records that have matching values in both tables.

```
SELECT column_name(s)
FROM table1
INNER JOIN table2
ON table1.column_name = table2.column_name;
```

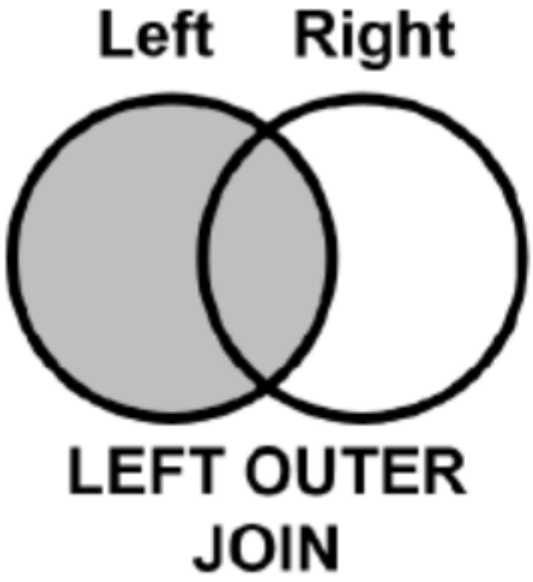


2) LEFT JOIN

The `LEFT JOIN` keyword returns all records from the left table (table1), and the matching records from the right table (table2). The result is 0 records from the right side, if there is no match.

The `LEFT JOIN` keyword returns all records from the left table (Customers), even if there are no matches in the right table (Orders).

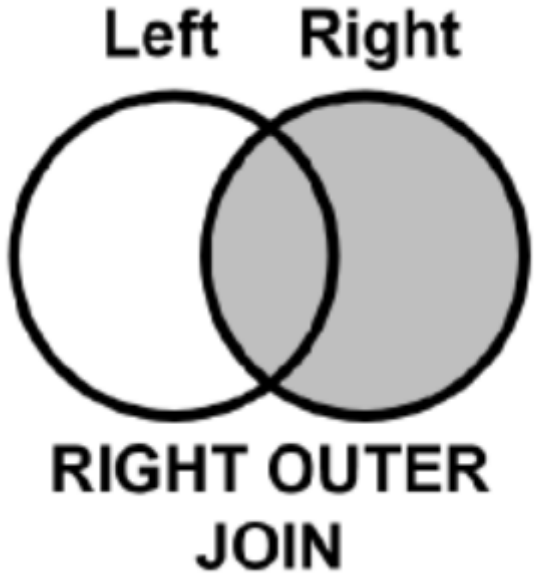
```
SELECT column_name(s)
FROM table1
LEFT JOIN table2
ON table1.column_name = table2.column_name;
```



3) RIGHT JOIN

The `RIGHT JOIN` keyword returns all records from the right table (table2), and the matching records from the left table (table1). The result is 0 records from the left side, if there is no match.

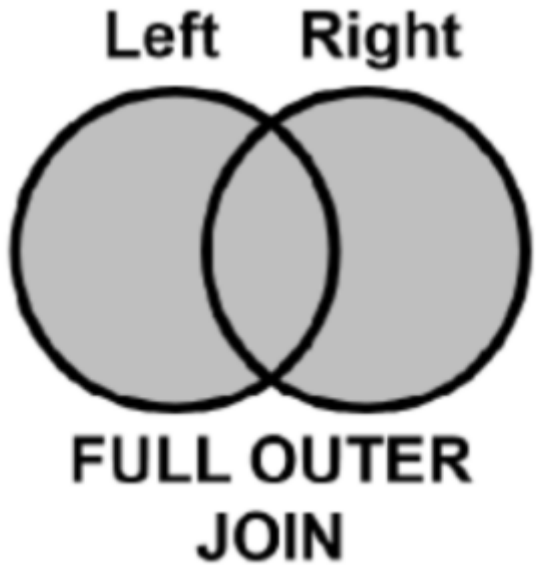
```
SELECT column_name(s)
FROM table1
RIGHT JOIN table2
ON table1.column_name = table2.column_name;
```



4) FULL JOIN

The `FULL OUTER JOIN` keyword returns all records when there is a match in left (table1) or right (table2) table records.

```
SELECT column_name(s)
FROM table1
LEFT JOIN table2
ON table1.column_name = table2.column_name
UNION
SELECT column_name(s)
FROM table1
RIGHT JOIN table2
ON table1.column_name = table2.column_name;
```



Cascade Constraint in SQL

CASCADE in SQL is used to simultaneously delete or update an entry from both the child and parent table.

The keyword CASCADE is used as a conjunction while writing the query of ON DELETE or ON UPDATE.

- **DELETE CASCADE:** When we create a foreign key using this option, it deletes the referencing rows in the child table when the referenced row is deleted in the parent table which has a primary key.

- **UPDATE CASCADE:** When we create a foreign key using UPDATE CASCADE the referencing rows are updated in the child table when the referenced row is updated in the parent table which has a primary key.