JOINS

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

Categories of joins :

Self-Join: The table is joined with itself

Syntax:

```
SELECT column name(s)
FROM table1 T1, table1 T2
WHERE condition;
```

Example: select * from student, student;

Cross-Join: The table is joined with another table.

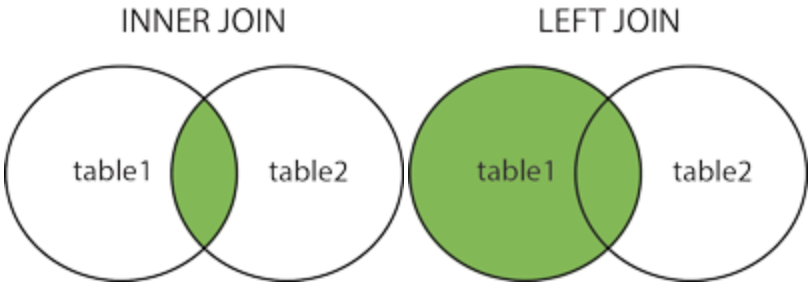
Syntax:

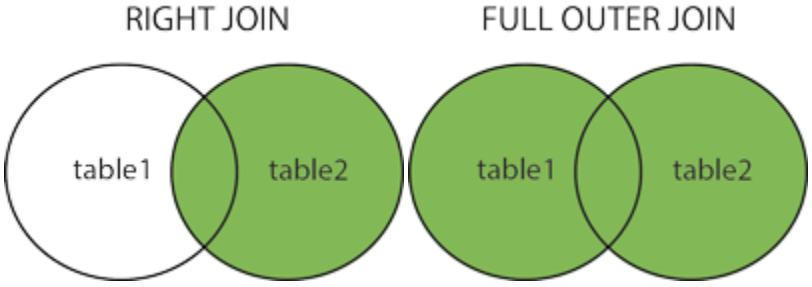
```
SELECT column name(s)
FROM table1 T1, table2 T2
WHERE condition;
```

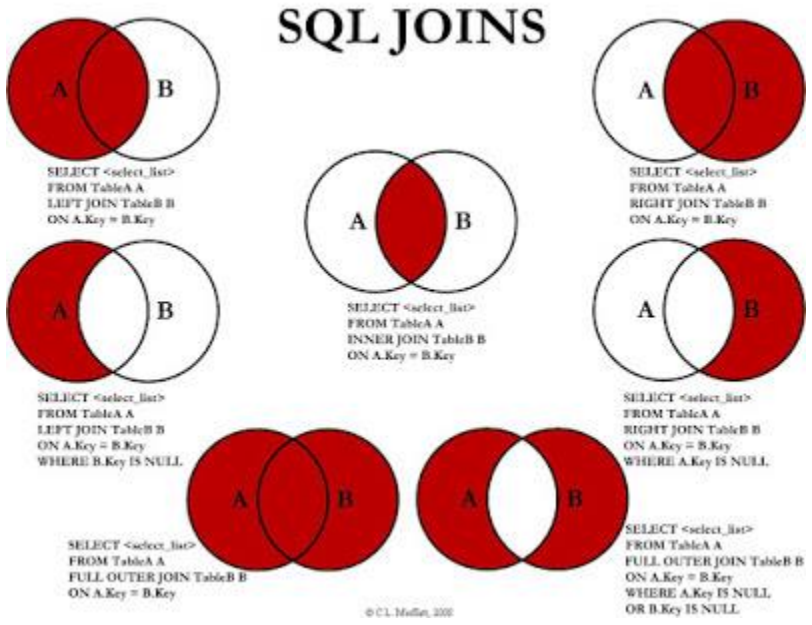
Example: select * from student, student1;

Types of Joins:

- **(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 or CROSS JOIN** : Returns all records when there is a match in either left or right table


INNER JOIN
LEFT JOIN
table1
table2
table1
table2


RIGHT JOIN
FULL OUTER JOIN
table1
table2
table1
table2


SQL JOINS
A
B
SELECT <select_list>
FROM TableA A
LEFT JOIN TableB B
ON A.Key = B.Key
SELECT <select_list>
FROM TableA A
INNER JOIN TableB B
ON A.Key = B.Key
SELECT <select_list>
FROM TableA A
RIGHT JOIN TableB B
ON A.Key = B.Key
SELECT <select_list>
FROM TableA A
LEFT JOIN TableB B
ON A.Key = B.Key
WHERE B.Key IS NULL
SELECT <select_list>
FROM TableA A
RIGHT JOIN TableB B
ON A.Key = B.Key
WHERE A.Key IS NULL
SELECT <select_list>
FROM TableA A
FULL OUTER JOIN TableB B
ON A.Key = B.Key
SELECT <select_list>
FROM TableA A
FULL OUTER JOIN TableB B
ON A.Key = B.Key
WHERE A.Key IS NULL
OR B.Key IS NULL
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