

• desc → function to show the structure of the table.

• Joins:-

- Primary and foreign keys are must (plays an important role)
- We can join tables even without primary and foreign key. (not a must).

• Example :-

Inner Join / Equi Join (value should be matching)

table 1	table 2
Sno.	Sno.
1	1
2	2
3	8
4	9
6	10

The answer of inner join will be

1	1
<del>2</del>	2

Outer Join (left join)  
- Left Outer Join  
- Right Outer Join  
- Full Outer Join

(Outer means, SQL says it will pick the matched values, unmatched values from the table you tell the SQL)

Left Outer Join, it will give priority to the left table.

Two matched rows will come and extra rows from the left table will come. (No matter matching or not matching, all the left table rows will come).

Right Join means giving more priority to Right table.

Full Join means (all the rows from both the tables will come)

Cross Join (Cartesian Join)

SQL combines one row of the table with all the other rows in another table. In the above example, 5 rows  $\times$  5 rows = 25 rows.

In left join it will show,

table 1	table 2
1	1
2	2
3	6
4	7
5	8

left                      Right

1	1
2	2
3	null
4	null
5	null

} There are matched

} Remaining rows from left join.

In right join (opposite to left join) (same concept).

Self Join :- Joining the same table with itself  
(We cannot find how many rows we will be getting)

Natural Joins :- (Not actually used in Companies)



Example:-

Table 1	Table 2
Roll	Roll-no.
1	1
1	1
1	1
1	1

If we do ~~the~~ inner join the output is:-

1
1
1
1
1
1
1
1
1
1
1
1

12 rows

(Duplication will come)

(System never skips)

Left Outer Join :- 12 rows

Right Outer Join :- 12 rows

Cross ~~Join~~ Join :- 12 rows

Left outer join example.  
output:-

1	1
1	1
1	1
1	1
1	1
1	1
1	1
1	1
1	1
1	1
1	1
1	1
2	

non value

Example:-

Table 1	Table 2
Roll	RollNo.
1	1
1	1
1	1
2	1

~~Left out~~

Inner Join = 12

Left Outer Join = 13

Right Outer Join = 12

Cross Join = 16

Full Join = 13

• Select ~~distinct~~ distinct is used to remove duplicacies.

• Inner Join

• Outer Join

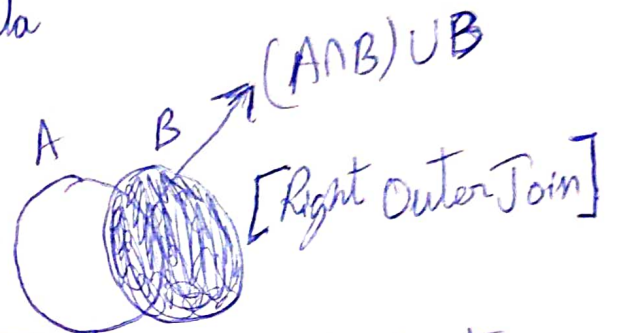
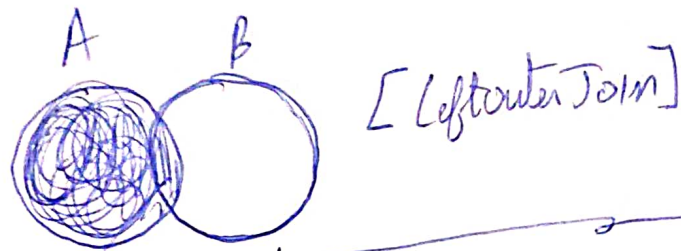
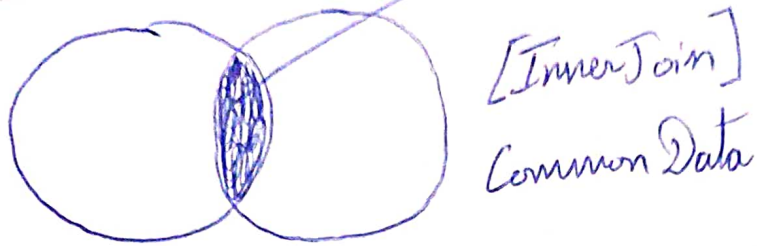
↳ Left Outer Join

↳ Right Outer Join

↳ Full outer Join (not in mysql, present in Oracle DB)

• Self Join

Table A      Table B →  $A \cap B$



$(A \cap B) \cup A$

If there is no common row, then for the remaining values, null value will be received.

- If we want full outer join, we can do left join union right join.