Join

By using the join function we can combine the row from two or multiple table based on common datatype in attribute (column).

Types of joins:

a) Inner join or Equi join or Simple Join
b) Non-equi Join
c) Cross product or Cartesian join
d) Left outer join
e) Right outer join
f) Full outer join
g) Self join

a) Inner join or Equi join or Simple Join:

- By using inner join function we can retrieve the matching rows from two or multiple tables basedon common data type columns and used equal to (=) operator in a condition.

Example: SELECT A.X, B.X FROM TABLE_A A, TABLE_B B WHERE A.X=B.X;

Example: SELECT A.X, B.X FROM TABLE_A A INNER JOIN TABLE_B ON A.X=B.X;

Table_A	Table_B	Output	
X	X	x	x
1	3	3	3
2	2	2	2
3	1	1	1
6	7		

b) Non Equi Join:

- By using non-equi join function we can retrieve the non matching rows from two or multiple tables based on common data type columns and used equal to (!= or < >) operator in a condition.
- Here we retrieve the non – matching records.

Example: SELECT A.X, B.X FROM TABLE_A A, TABLE_B B WHERE A.X!=B.X;

c) Cross product join or Cartesian join:

- By using cross join we can combine rows of two or multiple table without any condition.
- Without condition join the table.
- This is used where possibilities require.

Example: SELECT A.X, A.X FROM TABLE_A A, TABLE_B B;

a) Left Outer Join:

- By using left outer join we can retrieve all the values from the left table those are matched orunmatched but unmatched values are displayed as null in right table.

Example: SELECT A.X, B.X FROM TABLE_A A LEFT OUTER JOIN TABLE_B B ON A.X=B.X;

Table_A	Table_B	Output	
X	Y	x	y
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	7	5	(null)
6	8	6	(null)

b) Right outer Join:

- By using right outer join we can retrieve all the values from the right table those are matched orunmatched but unmatched values are displayed as null in left table.

Example: SELECT A.X, B.X FROM TABLE_A A RIGHT OUTER JOIN TABLE_B B ON A.X=B.X;

Table_A	Table_B	Output	
X	Y	x	y
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	7	(null)	7
6	8	(null)	8

c) Full Outer Join:

- By using full outer join we can combine all the rows (or records) from left and right table whetherit match or un-match but un-match value display as null in corresponding table.

Example: SELECT A.X, B.X FROM TABLE_A A FULL OUTER JOIN TABLE_B B ON A.X=B.X;

Table_A	Table_B	Output	
X	Y	x	y
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	7	5	(null)
6	8	6	(null)
		(null)	
		(null)	

g) Self join:

- By using self join we can compare the two columns of same table.

Example: SELECT E.EMP, E.JOB FROM SCOTT.EMP E, SCOTT.EMP M WHERE E.MGR = M.EMPNO;