**JOINS IN SQL:**

Joins are used for retrieving the data from one or more

tables at a time. Joins can be classified into the following types.

* EQUI JOIN
* INNER JOIN
* OUTER JOIN
* LEFT OUTER JOIN
* RIGHT OUTER JOIN
* FULL OUTER JOIN
* NON EQUI JOIN
* SELF JOIN
* CROSS JOIN
* NATURAL JOIN

**EQUI JOIN:** If two or more tables are combined using equality condition then we call as a Equi join.

**Ex:** WAQ to get the matching records from EMP and DEPT tables

**Sol:** SELECT \* FROM EMP, DEPT WHERE (EMP.EID=DEPT.DNO) (NONANSI STANDARD)

Sol: SELECT E.EID, E.ENAME, E.SALARY, D.DNO, D.DNAME FROM EMP

E, DEPT D WHERE E.EID=D.DNO (ANSI STANDARD)

**INNER JOIN:** Inner join return only those records that match in both table

* Ex: SELECT \* FROM EMP E INNER JOIN DEPT D ON E.EID=D.DNO

**OUTTER JOIN:** It is an extension for the equi join. In equi join condition we will be getting the matching data from the tables only. So we loss un matching data from the tables.

To overcome the above problem we use outer join which are used to getting

matching data as well as UN matching data from the tables. This outer join again classified into three types

**LEFT OUTER JOIN:** It will retrieve or get matching data from both table as well as un matching data from left hand side table

* Ex: SELECT \* FROM EMP LEFT OUTER JOIN DEPT ON

EMP.EID=DEPT.DNO;

**RIGHT OUTER JOIN:** It will retrieve or get matching data from both table as well as un matching data from right hand side table

Ex: SELECT \* FROM EMP RIGHT OUTER JOIN DEPT ON

EMP.EID=DEPT.DNO;

**FULL OUTER JOIN:** It will retrieve or get matching data from both table as well as un matching data from left hand side table plus right hand side table also.

* Ex: SELECT \* FROM EMP FULL OUTER JOIN DEPT ON

EMP.EID=DEPT.DNO;

**NON EQUI JOIN:** If we join tables with any condition other than equality

condition then we call as a non equi join.

* Ex: SELECT \* FROM EMP, SALGRADE WHERE (SALARY > LOWSAL)

AND (SALARY < HIGHSAL)

**SELF JOIN:** Joining a table by itself is known as self join. Whenever we having

some relations between the columns within the table then we use self join.

Ex: SELECT E.EID, E.ENAME MANAGERS, M.SALARY FROM EMP E, EMP

M WHERE E.EID=M.EID.

**CROSS JOIN:** Cross join is used to join more than two tables without any

condition we call as a cross join. In cross join each row of the first table join with each row of the second table.

So, if the first table contain ‘m’ rows and second table contain ‘n’ rows then output will be ‘m\*n’ rows.

* Ex: SELECT \* FROM EMP, DEPT
* Ex: SELECT \* FROM EMP CROSS JOIN DEPT

**NATURAL JOIN:** It is not support for SQL SERVER but supports ORACLE

Joins with Three Tables:

select \* from Employee

select \* from Dept

select \* from student