### JOINS IN ORACLE-different joins in oracle with examples

### 1. The purpose of a join is to combine the data across tables.

### 2. A join is actually performed by the where clause which combines the specified rows of tables.

### 3. If a join involves in more than two tables then [Oracle](http://dwhlaureate.blogspot.in/2014/05/oracle-database-12c-new-feature-fetch.html) joins first two tables based on the joins condition and then compares the result with the next table and so on.

### TYPES

### 1     Equi join

### 2     Non-equi join

### 3     Self join

### 4     Natural join

### 5     Cross join

### 6     Outer join

### Left outer

### Right outer

### Full outer

### 7     Inner join

### 8     Using clause 9     On clause

### Assume that we have the following tables.

### SQL> select \* from dept;

|  |  |  |
| --- | --- | --- |
| DEPTNO | DNAME | LOC |
| 10 | INVENTORY | HYBD |
| 20 | FINANCE | BGLR |
| 30 | HR | MUMBAI |

### SQL> select \* from emp;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | MGR | DEPTNO |
| 111 | saketh | analyst | 444 | 10 |
| 222 | sudha | clerk | 333 | 20 |
| 333 | jagan | manager | 111 | 10 |
| 444 | madhu | engineer | 222 | 40 |

### 1.      EQUI JOIN

### A join which contains an equal to ‘=’ operator in the joins condition.

### *Ex:*

### *SQL>*select empno,ename,job,dname,loc from emp e,dept d where e.deptno=d.deptno;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | DNAME | LOC |
| 111 | saketh | analyst | INVENTORY | HYBD |
| 333 | jagan | manager | INVENTORY | HYBD |
| 222 | sudha | clerk | FINANCE | BGLR |

### Using clause

### SQL> select empno,ename,job ,dname,loc from emp e join dept d using(deptno);

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | DNAME | LOC |
| 111 | saketh | analyst | INVENTORY | HYBD |
| 333 | jagan | manager | INVENTORY | HYBD |
| 222 | sudha | clerk | FINANCE | BGLR |

### On clause

### SQL> select empno,ename,job,dname,loc from emp e join dept d on(e.deptno=d.deptno);

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | DNAME | LOC |
| 111 | saketh | analyst | INVENTORY | HYBD |
| 333 | jagan | manager | INVENTORY | HYBD |
| 222 | sudha | clerk | FINANCE | BGLR |

### 2.      NON-EQUI JOIN

### A join which contains an operator other than equal to ‘=’ in the joins condition.

### Ex:

### SQL> select empno,ename,job,dname,loc from emp e,dept d where e.deptno > d.deptno;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | DNAME | LOC |
| 222 | sudha | clerk | INVENTORY | HYBD |
| 444 | madhu | engineer | INVENTORY | HYBD |
| 444 | madhu | engineer | FINANCE | BGLR |
| 444 | madhu | engineer | HR | MUMBAI |

### 3.      SELF JOIN

### Joining the table itself is called self join.

### Ex:

### SQL> select e1.empno,e2.ename,e1.job,e2.deptno from emp e1,emp e2 where e1.empno=e2.mgr;

|  |  |  |  |
| --- | --- | --- | --- |
| EMPNO | ENAME | JOB | DEPTNO |
| 111 | jagan | analyst | 10 |
| 222 | madhu | clerk | 40 |
| 333 | sudha | manager | 20 |
| 444 | saketh | engineer | 10 |

### 4.      NATURAL JOIN

### Natural join compares all the common columns.

### Ex:

### SQL> select empno,ename,job,dname,loc from emp natural join dept;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | DNAME | LOC |
| 111 | saketh | analyst | INVENTORY | HYBD |
| 333 | jagan | manager | INVENTORY | HYBD |
| 222 | sudha | clerk | FINANCE | BGLR |

### 5.      CROSS JOIN

### This will gives the cross product.

### Ex: SQL> select empno,ename,job,dname,loc from emp cross join dept;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | DNAME | LOC |
| 111 | saketh | analyst | INVENTORY | HYBD |
| 222 | sudha | clerk | INVENTORY | HYBD |
| 333 | jagan | manager | INVENTORY | HYBD |
| 444 | madhu | engineer | INVENTORY | HYBD |
| 111 | saketh | analyst | FINANCE | BGLR |
| 222 | sudha | clerk | FINANCE | BGLR |
| 333 | jagan | manager | FINANCE | BGLR |
| 444 | madhu | engineer | FINANCE | BGLR |
| 111 | saketh | analyst | HR | MUMBAI |
| 222 | sudha | clerk | HR | MUMBAI |
| 333 | jagan | manager | HR | MUMBAI |
| 444 | madhu | engineer | HR | MUMBAI |

### 6.      OUTER JOIN

### Outer join gives the non-matching records along with matching records.

### LEFT OUTER JOIN

### This will display the all matching records and the records which are in left hand side table those that are not in right hand side table.

### Ex:

### SQL> select empno,ename,job,dname,loc from emp e left outer join dept d

### on(e.deptno=d.deptno);

### Or

### SQL> select empno,ename,job,dname,loc from emp e,dept d where

### e.deptno=d.deptno(+);

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | DNAME | LOC |
| 111 | saketh | analyst | INVENTORY | HYBD |
| 333 | jagan | manager | INVENTORY | HYBD |
| 222 | sudha | clerk | FINANCE | BGLR |
| 444 | madhu | engineer |  |  |

### RIGHT OUTER JOIN

### This will display the all matching records and the records which are in right hand side table those that are not in left hand side table.

### Ex:

### SQL> select empno,ename,job,dname,loc from emp e right outer join dept d

### on(e.deptno=d.deptno);

### Or

### SQL> select empno,ename,job,dname,loc from emp e,dept d where e.deptno(+) =

### d.deptno;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | DNAME | LOC |
| 111 | saketh | analyst | INVENTORY | HYBD |
| 333 | jagan | manager | INVENTORY | HYBD |
| 222 | sudha | clerk | FINANCE | BGLR |
|  |  |  | HR | MUMBAI |

### FULL OUTER JOIN

### This will display the all matching records and the non-matching records from both tables.

### Ex:

### SQL> select empno,ename,job,dname,loc from emp e full outer join dept d

### on(e.deptno=d.deptno);

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | DNAME | LOC |
| 333 | jagan | manager | INVENTORY | HYBD |
| 111 | saketh | analyst | INVENTORY | HYBD |
| 222 | sudha | clerk | FINANCE | BGLR |
| 444 | madhu | engineer |  |  |
|  |  |  | HR | MUMBAI |

### 7.      INNER JOIN

### This will display all the records that have matched.

### Ex:

### SQL> select empno,ename,job,dname,loc from emp inner join dept using(deptno);

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EMPNO | ENAME | JOB | DNAME | LOC |
| 111 | saketh | analyst | INVENTORY | HYBD |
| 333 | jagan | manager | INVENTORY | HYBD |
| 222 | sudha | clerkx` | FINANCE | BGLR |