

Joins

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The logical expression specifies how the tables are joined

Three Types

1. Simple join
2. Self Join
3. Outer Join

Simple Join:

It retrieves rows from two tables having a common column and is further classified into Equal-Join Non-Equal-Join

```
SQL> create table masteritem(itemno number,itemname varchar2(15),qty_on_hand
number);
```

Table created.

```
SQL> create table tranitem(itemno number,qty_sold number);
```

Table created.

```
SQL> insert into masteritem values(1,'television',9000);
```

1 row created.

```
SQL> insert into masteritem values(2,'wmachine',6000);
```

1 row created.

```
SQL> insert into masteritem values(3,'monitor',2000);
```

1 row created.

```
SQL> insert into masteritem values(4,'dvdplayer',4000);
```

1 row created.

```
SQL> insert into tranitem values(1,900);
```

1 row created.

```
SQL> insert into tranitem values(2,400);
```

1 row created.

```
SQL> insert into tranitem values(3,300);
```

1 row created.

```
SQL> insert into tranitem values(1,200);
```

1 row created.

```
SQL> select *from tranitem;
```

| ITEMNO | QTY_SOLD |
|--------|----------|
| 1      | 900      |
| 2      | 400      |
| 3      | 300      |
| 1      | 200      |

```
SQL> select *from masteritem;
```

| ITEMNO | ITEMNAME   | QTY_ON_HAND |
|--------|------------|-------------|
| 1      | television | 9000        |
| 2      | wmachine   | 6000        |
| 3      | monitor    | 2000        |
| 4      | dvdplayer  | 4000        |

```
SQL> select m.itemno,m.itemname,m.qty_on_hand,t.qty_sold from masteritem m,tranitem
t where m.itemno =t.itemno;
```

| ITEMNO | ITEMNAME   | QTY_ON_HAND | QTY_SOLD |
|--------|------------|-------------|----------|
| 1      | television | 9000        | 900      |
| 2      | wmachine   | 6000        | 400      |
| 3      | monitor    | 2000        | 300      |
| 1      | television | 9000        | 200      |

```
SQL> select m.itemno,m.itemname,m.qty_on_hand,t.qty_sold from masteritem m,tranitem
t where m.itemno =t.itemno;
```

| ITEMNO | ITEMNAME   | QTY_ON_HAND | QTY_SOLD |
|--------|------------|-------------|----------|
| 1      | television | 9000        | 900      |
| 2      | wmachine   | 6000        | 400      |
| 3      | monitor    | 2000        | 300      |
| 1      | television | 9000        | 200      |

Outer Join :

An outer join returns all the rows returned by simple join as well as those rows from one table that do not match any row from the other table.

The symbol (+) represents outer join.

```
SQL> select m.itemno,m.itemname,m.qty_on_hand,t.qty_sold from masteritem m,tranitem
t where m.itemno =t.itemno(+);
```

| ITEMNO | ITEMNAME | QTY_ON_HAND | QTY_SOLD |
|--------|----------|-------------|----------|
|--------|----------|-------------|----------|

|              |      |     |
|--------------|------|-----|
| 1 television | 9000 | 900 |
| 2 wmachine   | 6000 | 400 |
| 3 monitor    | 2000 | 300 |
| 1 television | 9000 | 200 |
| 4 dvdplayer  | 4000 |     |

#### Self-Join:

Joining of a table itself is known as self join. i.e., it joins one row in a table to another. It can compare each row of the table to itself and also with other rows of the same table.

```
Create table employee (employee_no varchar2(10) primary key
check(Employee_no like 'e%') , name varchar2(15) not null, manager_no
varchar2(10));
```

| Employee_No | Name    | Manager_No |
|-------------|---------|------------|
| e001        | maha    | e002       |
| e002        | subha   | e003       |
| e003        | saranya | e004       |
| e004        | nava    | e005       |

```
select emp.name,mngr.name manager from employee emp, employee mngr where
emp.manager_no = mngr.employee_no
```