

1. Update smith's salary with Adam's salary
 update emp
 set sal=(select sal
 from (select * from emp) e
 where ename='ADAMS')
 where ename='SMITH';
2. Delete all employees who are working in SMITH's department
 delete from emp
 where deptno=(select deptno
 from (select * from emp) e
 where ename='SMITH');
3. Delete all employees whose sal > avg sal of ALLEN's department
 delete from emp
 where sal > (select avg(sal)
 from (select * from emp) e
 where deptno=(select deptno
 from (select * from emp) m
 where ename='ALLEN'));

```
select *
from dept d
where not exists (select *
                  from emp e
                  where e.deptno=d.deptno)
```

```
product(pid,pname,qty,price,cid,sid)
category(cid,cnam,des_info)
salesman(sid,sname,address)
```

1. Find all categories for which there are no products.
 Select *
 From category c
 Where not exists (select * from product p
 Where p.cid=c.cid)
2. Find all salesman who have not sold any product
 Select *
 From salesman s
 Where not exists (select * from product p
 Where p.sid=s.sid)

3. Find all salesman who sold some product and stays in pune

Select *

From salesman s

Where exists (select *

From product p

Where p.sid=s.sid) and address='Pune';

Joins

When you need to display information from more than one table then use joins

Types of joins

1. Cross join
2. Inner join-- to get matching rows use inner join.
 - a. Equi join—if the join condition is based on = sign then it is called as equi join
 - b. Non equi join—if the join condition is based on non equality condition then it is called as nonequi join
 - c. Self join---- in inner join if the same table is joined with itself then it is called as self join.
3. Outer join---- when you want to display matching as well as non-matching rows then use outer join
 - a. Left outer join --> if you want to display non matching records from left side table then use left outer join
 - b. Right outer join--> if you want to display non matching records from right side table then use right outer join
 - c. Full outer join-> if you want to display non matching records from both side table then use full outer join

Find all employees along with their department name

select *

-> from emp e, dept d

-> where e.deptno=d.deptno;

Or

Select *

From emp e inner join dept d on e.deptno=d.deptno

Find all employees name, sal and grade

select *

-> from emp e, salgrade s

-> where e.sal between s.losal and s.hisal;

select *

-> from emp e inner join salgrade s

-> on e.sal between s.losal and s.hisal;

4. Find names of all employees along with their managers

select e.empno,e.ename,e.mgr,m.empno mgrno,m.ename mgrname

-> from emp e,emp m

-> where e.mgr=m.empno;

Or

select e.empno,e.ename,e.mgr,m.empno mgrno,m.ename mgrname

-> from emp e inner join emp m

-> on e.mgr=m.empno;

5. Find all courses with their faculty name

select c.cname,f.fname

from course c,course_faculty cf,faculty f

-> where c.cid=cf.cid and cf.fid=f.fid;

Or

select c.cname,f.fname

from course c inner join course_faculty cf on c.cid=cf.cid inner join faculty f

-> on cf.fid=f.fid;

product(pid,pname,qty,price,cid,sid)

category(cid,cnam,des_info)

salesman(sid,sname,address)

1. To find all products name, qty, price along with salesman name

Select p.pname,p.qty,p.price,p.sid,s.sname

From product p, salesman s

Where p.sid=s.sid;

2. To find all product names, qty,price and category names

Select p.pname,p.qty,p.price,p.cid,c.cname

From product p, category c

Where p.cid=c.cid;

3. To find all products name , qty along with salesman name and category name

Select p.pname,p.qty,s.sname,c.cname

From product p,salesman s,category c

Where p.cid = c.cid and p.sid=s.sid;

4. display all employees along with their dept name and grade

```
select empno,ename,e.deptno,dname,sal,grade,losal,hisal
```

```
-> from emp e, dept d, salgrade s
```

```
-> where e.deptno=d.deptno and e.sal between s.losal and s.hisal;
```

4. To find all employees along with their department name and also display departments in which no employees are there

```
select empno,ename,sal,e.deptno,d.deptno,d.dname
```

```
-> from emp e right join dept d on e.deptno=d.deptno;
```

5. To find all employees along with their department name employees who are not assigned to any department

```
select empno,ename,sal,e.deptno,d.deptno,d.dname
```

```
-> from emp e left join dept d on e.deptno=d.deptno;
```

6. To find all employees along with their department name and also display departments in which no employees are there also display employees who are not assigned to any department

```
select empno,ename,sal,e.deptno,d.deptno,d.dname
```

```
-> from emp e right join dept d on e.deptno=d.deptno
```

```
-> union
```

```
-> select empno,ename,sal,e.deptno,d.deptno,d.dname
```

```
-> from emp e left join dept d on e.deptno=d.deptno;
```

Find all employees along with their department name for all employees with sal > 2000

```
select *
```

```
-> from emp e, dept d
```

```
-> where e.deptno=d.deptno and sal>2000;
```

Or

```
Select *
```

```
From emp e inner join dept d on e.deptno=d.deptno
```

```
Where sal>2000;
```