

**1] Consider the relations****EMPLOYEE (SSN, Name, DeptNo)****ASSIGNED\_TO (USN, ProjectNo)****PROJECT (ProjectNo, ProjectArea)****Create the above tables, insert suitable tuples and perform the following operations in Oracle SQL****a. Obtain the SSN of employees assigned to database projects.****b. Find the number of employees working in each department****c. Update the ProjectNo of Employee bearing SSN=1 to ProjectNo=20****SQL> create table employee(ssn int, name varchar(10),deptno int, primary key(ssn));**

Table created.

**SQL> create table project(projectno int,projectarea varchar(10),primary key(projectno));**

Table created.

**SQL> create table assigned\_to2(usn int,projectno int, primary key(usn,projectno),foreign key(usn) references employee(ssn),foreign key(projectno) references project(projectno));**

Table created.

**SQL> insert into employee values(1,'Hitesh',10);**

1 row created.

**SQL> insert into employee values(2,'suresh',12);**

1 row created.

**SQL> insert into employee values(3,'ramesh',14);**

1 row created.

**SQL> insert into project values(1,'database');**

1 row created.

**SQL> insert into project values(2,'database');**

1 row created.

**SQL> insert into project values(3,'images');**

1 row created.

**SQL> insert into project values(20,'content');**

1 row created.

**SQL> insert into assigned\_to2 values(1,1);**

1 row created.

**SQL> insert into assigned\_to2 values(2,1);**

1 row created.

**SQL> select \* from employee;**

SSN	NAME	DEPTNO
1	Hitesh	10

2 suresh	12
3 ramesh	14

```
SQL> select * from project;
PROJECTNO PROJECTARE
```

```
-----
1 database
2 database
3 images
20 content
```

```
SQL> select * from assigned_to;
USN PROJECTNO
```

```
-----
1      1
2      1
3      3
```

```
SQL> select e.ssn
2 from employee e, project p, assigned_to2 a
3 where p.projectarea='database' and
p.projectno=a.projectno and a.usn=e.ssn;
```

```
SSN
```

```
-----
1
2
```

```
SQL> select count(ssn) from employee
2 group by(deptno);
```

```
COUNT(SSN)
```

```
-----
1
1
1
```

```
SQL> update assigned_to
2 set projectno=20
3 where usn=1;
```

1 row updated.

```
SQL> select * from assigned_to2;
```

```
USN PROJECTNO
```

```
-----
1      20
2      1
3      3
```

**2]Consider the relations**

**PART (PNO, PNAME, COLOUR),  
 SUPPLIER ( SNO, SNAME, ADDRESS)  
 SUPPLY (PNO, SNO, QUANTITY)**

**Create the above tables, insert suitable tuples and perform the following operations in Oracle SQL:**

- a. Obtain the PNO of parts supplied by supplier „Ram“.**
  - b. Obtain the Names of suppliers who supply bolts**
  - c. Delete the parts which are green in colour**
- 

```
SQL> create table part2(pno int,pname varchar(10), color varchar(10) , primary key(pno));
```

Table created.

```
SQL> create table supplier2(sno int,sname varchar(10), address varchar(10) , primary key(sno));
```

Table created.

```
SQL> create table supply3(pno int,sno int, quantity int, primary key(pno,sno),foreign key(pno)
references part2(pno) on delete cascade, foreign key(sno) references supplier2(sno) on delete
cascade);
```

Table created.

```
SQL> insert into part2 values (1,'Bolt','Red');
```

1 row created.

```
SQL> insert into part2 values (2,'Bolt','Red');
```

1 row created.

```
SQL> insert into part2 values (3,'Bolt','Red');
```

1 row created.

```
SQL> insert into supply3 values (1,1,10);
```

1 row created.

```
SQL> insert into supply3 values (2,2,10);
```

1 row created.

```
SQL> insert into supply3 values (1,3,10);
```

1 row created.

```
SQL> insert into supply3 values (3,3,10);
```

1 row created.

```
SQL> select * from part2;
```

PNO	PNAME	COLOR
1	Bolt	Red
2	Bolt	Red
3	Bolt	Red

```
SQL> select * from supplier2;
```

SNO	SNAME	ADDRESS
1	Ram	Bang
2	Ram	Bang
3	Tom	Bang

```
SQL> select * from supply3;
```

PNO	SNO	QUANTITY
1	1	10
2	2	10
1	3	10
3	3	10

```
SQL> select s2.pno
2 from supplier2 s1,supply3 s2
3 where s1.sname='Ram' and s1.sno=s2.sno;
```

PNO
1
2

```
SQL> select s1.sname
2 from part p, supplier2 s1,supply3 s2
3 where p.pname='bolt' and p.pno=s2.pno and
s2.sno=s1.sno;
```

SNAME
Ram
Tom

```
SQL> delete from part2
2 where color='Red';
```

```
3 rows deleted.
```

**3] Consider the relations**

**BOAT (BID, BNAME, COLOUR),  
 SAILOR (SID, SNAME, AGE, RATING)  
 RESERVES (BID, SID, DAY)**

**Create the above tables, insert suitable tuples and perform the following operations in Oracle SQL:**

- a. Obtain the bid of the boats reserved by „Ram“.**
  - b. Retrieve the bid of the boats reserved by all the sailors.**
  - c. Find the number of boats reserved by each sailor**
- 

```
create table boat(bid int,bname varchar(10),color varchar(10),primary key(bid));
```

Table created.

```
SQL> create table sailor(sid int,sname varchar(10),age int, rating int);
```

Table created.

```
SQL> create table reserves(bid int,sid int,day varchar(10),primary key(bid,sid),foreign  

  2 key(bid) references boat(bid),foreign key(sid) references sailor1(sid));
```

Table created.

```
SQL> insert into boat values (1,'Titanic1','red');
```

1 row created.

```
SQL> insert into boat values (2,'Titanic','Black');
```

1 row created.

```
SQL> insert into boat values (3,'Titanic3','white');
```

1 row created.

```
SQL> insert into sailor1 values (1,'Ram',20,5);
```

1 row created.

```
SQL> insert into sailor1 values (2,'tom',25,3);
```

1 row created.

```
SQL> insert into sailor1 values (3,'cop',35,4);
```

1 row created.

```
SQL> insert into reserves values (1,1,'Monday');
```

1 row created.

```
SQL> insert into reserves values (2,2,'Tuesday');
```

1 row created.

```
SQL> insert into reserves values (3,2,'Wednesday');
```

1 row created.

```
SQL> select * from sailor1;
```

SID	SNAME	AGE	RATING
1	Ram	20	5
2	tom	25	3
3	cop	35	4

```
SQL> select * from boat;
```

BID	BNAME	COLOR
1	Titanic1	red
2	Titanic	Black
3	Titanic3	white

```
SQL> select * from reserves;
```

BID	SID	DAY
1	1	Monday
2	2	Tuesday
3	2	Wednesday

```
SQL> select b.bid
2 from boat b,sailor1 s,reserves r
3 where s.sname='Ram' and s.sid=r.sid and
r.bid=b.bid;
```

```
BID
-----
1
```

```
SQL> select b.bid
2 from boat b,reserves r
3 where r.bid=b.bid;
```

```
BID
-----
1
2
3
```

```
SQL> select count(bid) from reserves group
by(sid);
```

```
COUNT(BID)
-----
1
2
```

**4] Consider the relations****PART (PNO, PNAME, COLOUR),****WAREHOUSE (WNO, WNAME, CITY)****SHIPMENT (PNO, WNO, QUANTITY, DATE)****Create the above tables, insert suitable tuples and perform the following operations in Oracle SQL:**

- a. Obtain the Names of warehouses which have shipped red coloured parts.**
  - b. Retrieve the PNO of the parts shipped by all the warehouses.**
  - c. Find the number of parts supplied by each warehouse**
- 

**SQL> create table part(pno int, pname varchar(10), color varchar(10), primary key(pno));**

Table created.

**SQL> create table warehouse(wno int, wname varchar(10), city varchar(10), primary key(wno));**

Table created.

**SQL> create table shipment(pno int, wno int, quantity int, date\_ varchar(10), primary key(pno,wno), foreign key(pno) references part(pno), foreign key(wno) references warehouse(wno) );**

Table created.

**SQL> insert into part values(1,'bolt','red');**

1 row created.

**SQL> insert into part values(2,'nail','black');**

1 row created.

**SQL> insert into part values(3,'ssss','black');**

1 row created.

**SQL> insert into warehouse values(1,'alee','bang');**

1 row created.

**SQL> insert into warehouse values(2,'alll','mys');**

1 row created.

**SQL> insert into warehouse values(3,'assl','mys');**

1 row created.

**SQL> insert into shipment values(1,1,10,'monday');**

1 row created.

**SQL> insert into shipment values(1,2,10,'monday');**

1 row created.

**SQL> insert into shipment values(2,2,10,'Tuesday');**

1 row created.

**SQL> insert into shipment values(3,2,10,'Tuesday');**

1 row created.

SQL> select \* from part;

PNO	PNAME	COLOR
1	bolt	red
2	nail	black
3	ssss	black

SQL> select \* from warehouse;

WNO	WNAME	CITY
1	alee	bang
2	alll	mys
3	assl	mys

SQL> select \* from shipment;

PNO	WNO	QUANTITY	DATE_
1	1	10	monday
1	2	10	monday
2	2	10	Tuesday
3	2	10	Tuesday

```
SQL> select w.wname
2  from part p, shipment s, warehouse w
3  where p.color='red' and p.pno=s.pno and
s.wno=w.wno;
```

WNAME

-----  
alee  
alll

```
SQL> select p.pno
2  from part p ,shipment s
3  where s.pno=p.pno;
```

PNO

-----  
1  
1  
2  
3

```
SQL> select count(Pno) from shipment group
by(wno);
```

COUNT(PNO)

-----  
1  
3



**5] Consider the relations****BOOK (ISBN, TITLE, AUTHOR, PUBLISHER)****STUDENT (USN, NAME, SEM, DEPTNO),****BORROW (ISBN, USN, DATE)**

**Create the above tables, insert suitable tuples and perform the following operations in Oracle SQL:**

- a. Obtain the name of the student who has borrowed the book bearing ISBN „123“**
  - b. Obtain the Names of students who have borrowed database books.**
  - c. Find the number of books borrowed by each student.**
- 

```
SQL> create table book(ISBN int, title varchar(10),author varchar(10),publisher varchar(10) ,
primary key(ISBN));
```

Table created.

```
SQL> create table student(USN int, name varchar(10),sem int,deptno int , primary key(USN));
```

Table created.

```
SQL> create table borrow2(ISBN int,USN int,date1 Varchar(10), primary key(USN,ISBN)
```

```
2 ,foreign key(ISBN) references book(ISBN)
```

```
3 ,foreign key(USN) references student(USN));
```

Table created.

```
SQL> insert into book values(123,'c++','Ram','teck');
```

1 row created.

```
SQL> insert into book values(321,'c#','Tam','tecz');
```

1 row created.

```
SQL> insert into book values(121,'database','Tom','tech123');
```

1 row created.

```
SQL> insert into student values(41,'Hitesh',5,10);
```

1 row created.

```
SQL> insert into student values(42,'Ramesh',5,10);
```

1 row created.

```
SQL> insert into student values(43,'Suresh',5,10);
```

1 row created.

```
SQL> insert into borrow2 values(123,41,'Monday');
```

1 row created.

```
SQL> insert into borrow2 values(123,42,'Tuesday');
```

1 row created.

```
SQL> insert into borrow2 values(321,42,'Tuesday');
```

1 row created.

```
SQL> insert into borrow2 values(121,42,'Tuesday');
```

1 row created.

SQL> select \* from book;

ISBN	TITLE	AUTHOR	PUBLISHER
123	c++	Ram	teck
321	c#	Tam	tecz
121	database	Tom	tech123

SQL> select \* from STUDENT;

USN	NAME	SEM	DEPTNO
41	Hitesh	5	10
42	Ramesh	5	10
43	Suresh	5	10

SQL> select \* from borrow2;

ISBN	USN	DATE1
123	41	Monday
123	42	Tuesday
321	42	Tuesday
121	42	Tuesday

```
SQL> select name
2  from book b, student s,borrow2 b2
3  where b.ISBN=123 and b.ISBN=b2.ISBN and
b2.USN=s.USN;
```

NAME

Hitesh  
Ramesh

```
SQL> select name
2  from book b, student s,borrow2 b2
3  where b.title='database' and b.ISBN=b2.ISBN
and b2.USN=s.USN;
```

NAME

Ramesh

```
SQL> select count(ISBN) from borrow2 group
by(USN);
```

COUNT(ISBN)

1  
3