

```
DROP TABLE EMPLOYEE;
CREATE TABLE EMPLOYEE(
SSN INT PRIMARY KEY,
ENAME VARCHAR2(20),
ADDRESS VARCHAR2(20),
SEX VARCHAR(1) CHECK(SEX IN ('M', 'F')),
ESALARY NUMBER(6),
SUPERSSN REFERENCES EMPLOYEE(SSN) ON DELETE CASCADE,
DNO NUMBER(3));

INSERT INTO EMPLOYEE VALUES(1, 'Scott', 'Mangaluru', 'F', 35000, 1, NULL);
INSERT INTO EMPLOYEE VALUES(2, 'Sahana', 'Mangaluru', 'F', 35000, 1, NULL);
INSERT INTO EMPLOYEE VALUES(3, 'Sagar', 'Bengaluru', 'M', 35000, 1, NULL);
INSERT INTO EMPLOYEE VALUES(4, 'Sagarik', 'Mangaluru', 'M', 35000, 1, NULL);
INSERT INTO EMPLOYEE VALUES(5, 'Sajaan', 'Mysore', 'M', 600000, 1, NULL);
SELECT * FROM EMPLOYEE;

CREATE TABLE DEPARTMENT(
DNO NUMBER(5) PRIMARY KEY,
DNAME VARCHAR2(10),
DMGRSSN REFERENCES EMPLOYEE ON DELETE CASCADE,
MGRSTARTDATE DATE);

ALTER TABLE EMPLOYEE
ADD CONSTRAINT FK
FOREIGN KEY (DNO) REFERENCES DEPARTMENT ON DELETE CASCADE;
DESC EMPLOYEE;

INSERT INTO DEPARTMENT VALUES(1, 'CSE', 1, '2-Nov-2007');
INSERT INTO DEPARTMENT VALUES(2, 'IOT', 2, '2-Nov-2007');
INSERT INTO DEPARTMENT VALUES(3, 'Account', 2, '2-Nov-2017');
INSERT INTO DEPARTMENT VALUES(4, 'ISE', 1, '2-Nov-2000');
INSERT INTO DEPARTMENT VALUES(5, 'Finance', 1, '3-Nov-2001');
SELECT * FROM DEPARTMENT;

UPDATE EMPLOYEE
SET DNO=&DNO
```

```
SELECT * FROM EMPLOYEE;
```

```
CREATE TABLE DLOCATION(  
DNO REFERENCES DEPARTMENT,  
DLOCATION VARCHAR2(10),  
PRIMARY KEY(DNO,DLOCATION));
```

```
INSERT INTO dlocation VALUES(1,'Mangaluru');  
INSERT INTO dlocation VALUES(1,'Mysore');  
INSERT INTO dlocation VALUES(2,'Mangaluru');  
INSERT INTO dlocation VALUES(3,'Bengaluru');  
INSERT INTO dlocation VALUES(4,'Mangaluru');  
INSERT INTO dlocation VALUES(5,'Mangaluru');  
SELECT * FROM DLOCATION;
```

```
CREATE TABLE PROJECT(  
PNO NUMBER(2) PRIMARY KEY,  
PNAME VARCHAR2(20),  
PLOCATION VARCHAR2(20),  
DNO REFERENCES DEPARTMENT);
```

```
INSERT INTO project VALUES(1,'IOT','Managluru',1);  
INSERT INTO project VALUES(2,'Data Mining','Managluru',1);  
INSERT INTO project VALUES(3,'CC','Hubli',3);  
INSERT INTO project VALUES(4,'Image processing','Managluru',4);  
INSERT INTO project VALUES(5,'Research','Managluru',5);  
SELECT * FROM PROJECT;
```

```
CREATE TABLE WORKSON(  
SSN REFERENCES EMPLOYEE ON DELETE CASCADE,  
PNO REFERENCES PROJECT ON DELETE CASCADE,  
WHOUR NUMBER(2));  
INSERT INTO workson VALUES(1,1,4);  
INSERT INTO workson VALUES(2,1,5);  
INSERT INTO workson VALUES(3,2,4);  
INSERT INTO workson VALUES(4,3,4);
```

```
SELECT * FROM workson;
```

```
--1.PNO of all project in which 'SCOTT' is EMPLOYEE OR MANAGER
```

```
SELECT PNO FROM WORKSON
```

```
WHERE SSN IN ( SELECT SSN FROM EMPLOYEE WHERE ENAME='Scott');
```

```
/*UNION
```

```
SELECT PNO FROM PROJECT
```

```
WHERE DNO IN(
```

```
SELECT DNO FROM DEPARTMENT WHERE DMGRSSN IN
```

```
(SELECT SSN FROM EMPLOYEE WHERE ENAME='SCOTT')
```

```
)
```

```
*/
```

```
--2. Employee on 'IOT' given 10% rise. (EMPLOYEE,WORKSON,PROJECT)
```

```
SELECT SSN,ENAME,ESALARY,1.1*ESALARY "UPDATED SAL" FROM EMPLOYEE
```

```
WHERE SSN IN(
```

```
SELECT SSN FROM WORKSON
```

```
WHERE PNO IN(
```

```
SELECT PNO FROM project WHERE PNAME='IOT'));
```

```
--3. Salary stats of ACCOUNTS Department;
```

```
SELECT SUM(ESALARY),AVG(ESALARY),MAX(ESALARY),MIN(ESALARY)
```

```
FROM EMPLOYEE E,DEPARTMENT D
```

```
WHERE D.DNO=E.DNO AND DNAME='Account';
```

```
--4. SSN,ENAME who works on all projects controlled by DNO 5
```

```
-- (NOT EXIST)
```

```
SELECT SSN,ENAME FROM employee E
```

```
WHERE NOT EXISTS(
```

```
(SELECT PNO FROM PROJECT WHERE DNO=5)
```

```
MINUS
```

```
(SELECT PNO FROM WORKSON W WHERE E.SSN=W.SSN)
```

```
);
```

```
--5. DNO,Number of employees(>5) and earning >600000
```

```
SELECT DNO,COUNT(*) "NO. EMPLOYEE" FROM EMPLOYEE
```

**GROUP BY** DNO

**HAVING COUNT**(\*) >=5;

**INSERT INTO** EMPLOYEE **VALUES**(5, 'SAJAAN', 'Mysore', 'M', 600000, 1, 1);

**INSERT INTO** EMPLOYEE **VALUES**(6, 'ARUN', 'Mysore', 'M', 600000, 1, 1);

**INSERT INTO** EMPLOYEE **VALUES**(7, 'VARUN', 'Mysore', 'M', 600000, 1, 1);

**INSERT INTO** EMPLOYEE **VALUES**(8, 'CHAYA', 'Mysore', 'M', 600000, 1, 1);

**INSERT INTO** EMPLOYEE **VALUES**(9, 'PREMA', 'Mysore', 'M', 600000, 1, 1);