```
CREATE TABLE EMPLOYEE(SSN VARCHAR(8),
Name VARCHAR(10),
Address VARCHAR(30),
Sex CHAR(2),
Salary NUMBER(10),SuperSSN VARCHAR(8),DNo
VARCHAR(6),
CONSTRAINT PK_SSN PRIMARY KEY(SSN));

CREATE TABLE DEPARTMENT(DNo VARCHAR(6),
DName VARCHAR(10),
MgrSSN VARCHAR(8),
MgrStartDate DATE,
CONSTRAINT PK_DNo PRIMARY KEY(DNo),
CONSTRAINT FK_MgrSSN FOREIGN KEY(MgrSSN)
REFERENCES EMPLOYEE(SSN));

CREATE TABLE DLOCATION(DNo VARCHAR(6),
DLoc VARCHAR(15),
CONSTRAINT PK_DNo_DLoc PRIMARY KEY(DNo,DLoc),
CONSTRAINT FK_DNo FOREIGN KEY(DNo) REFERENCES
DEPARTMENT(DNo));

CREATE TABLE PROJECT(PNo VARCHAR(5),
PName VARCHAR(10),
PLocation VARCHAR(14),
DNo VARCHAr(6),
CONSTRAINT PK_PNo PRIMARY KEY(PNo),
CONSTRAINT FK_PDNo FOREIGN KEY(DNo) REFERENCES
DEPARTMENT(DNo));

CREATE TABLE WORKS_ON(SSN VARCHAR(8),
PNo VARCHAR(5),
Hours NUMBER(5),
CONSTRAINT PK_PNo_SSN PRIMARY KEY(PNo,SSN),
CONSTRAINT FK_WSSN FOREIGN KEY(SSN) REFERENCES
EMPLOYEE(SSN),
CONSTRAINT FK_PNo FOREIGN KEY(PNo) REFERENCES
PROJECT(PNo));

ALTER TABLE EMPLOYEE ADD CONSTRAINT FK_SSN
FOREIGN KEY(SuperSSN) REFERENCES EMPLOYEE(SSN);
ALTER TABLE EMPLOYEE ADD CONSTRAINT FK_EDNo
FOREIGN KEY(DNo) REFERENCES DEPARTMENT(DNo);
```

Queries

1.Make a list of all project numbers for projects that involve an employee whose last name is ‘Scott’, either as a worker or as a manager of the department that controls the project.

```
SELECT DISTINCT PNo
```

```
FROM PROJECT
WHERE PNo IN(
 (SELECT P.PNo
FROM PROJECT P,DEPARTMENT D ,EMPLOYEE E
WHERE P.DNo=D.DNo AND D.MgrSSN=E.SSN AND
E.Name='Scott')
UNION
(SELECT W.PNo FROM WORKS_ON W, EMPLOYEE E
WHERE E.SSN=W.SSN AND E.Name='Scott'));
```

2.Show the resulting salaries if every employee working on the 'IoT' project is given a 10 percentraise.

```
SELECT E.Name,1.1* E.Salary AS Increased_salary
FROM EMPLOYEE E, WORKS_ON W, PROJECT P
WHERE E.SSN=W.SSN AND W.PNo=P.PNo AND
P.PName='IoT';
```

3.Find the sum of the salaries of all employees of the 'Accounts' department,as well as the maximum salary, the minimum salary, and the average salary in this department.

```
SELECT SUM (E. Salary) AS TOTAL_SALARY,MAX(E. Salary)
AS
MAX_SALARY,MIN(E. Salary) AS MIN_SALARY,AVG(E.
Salary) AS
AVG_SALARY
FROM EMPLOYEE E, DEPARTMENT D
WHERE E. DNo= D. DNo AND D.DName='Accounts';
```

4.Retrieve the name of each employee who works on all the projects controlledby department number 5 (use NOT EXISTS operator).

```
SELECT E.Name
FROM EMPLOYEE E
WHERE NOT EXISTS((SELECT PNo FROM PROJECT WHERE
DNo='D5')
MINUS (SELECT W.PNo FROM WORKS_ON W WHERE
E.SSN=W.SSN));
```

5.For each department that has more than five employees, retrieve the department number and thenumber of its employees who are making more than Rs. 6,00,000.

```
SELECT D.DNo,COUNT(*)
FROM EMPLOYEE E, DEPARTMENT D
WHERE E.DNo= D.DNo AND E.Salary>600000
GROUP BY D.DNo
HAVING COUNT(*)>=5;
```