5) Create a Scheme for a company db.

**Solution:-**

drop table employee cascade constraints;

drop table department cascade constraints;

drop table dlocation cascade constraints;

drop table project cascade constraints;

drop table works\_on cascade constraints;

CREATE TABLE DEPARTMENT

(DNO VARCHAR2 (15) PRIMARY KEY,

DNAME VARCHAR2 (20),

MGRSTARTDATE DATE);

desc DEPARTMENT;

CREATE TABLE EMPLOYEE

(SSN VARCHAR2 (20) PRIMARY KEY,

NAME VARCHAR2 (20),

ADDRESS VARCHAR2 (20),

SEX CHAR (1),

SALARY INTEGER,

SUPERSSN REFERENCES EMPLOYEE (SSN),

DNO REFERENCES DEPARTMENT (DNO));

DESC EMPLOYEE;

ALTER TABLE DEPARTMENT

ADD MGRSSN REFERENCES EMPLOYEE (SSN);

CREATE TABLE DLOCATION

(DLOC VARCHAR2 (20),

DNO REFERENCES DEPARTMENT (DNO),

PRIMARY KEY (DNO, DLOC));

DESC DLOCATION;

CREATE TABLE PROJECT

(PNO INTEGER PRIMARY KEY,

PNAME VARCHAR2 (20),

PLOCATION VARCHAR2 (20),

DNO REFERENCES DEPARTMENT (DNO));

DESC PROJECT;

CREATE TABLE WORKS\_ON

(HOURS NUMBER (2),

SSN REFERENCES EMPLOYEE (SSN),

PNO REFERENCES PROJECT(PNO),

PRIMARY KEY (SSN, PNO));

DESC WORKS\_ON;

INSERT INTO EMPLOYEE (SSN, name, ADDRESS, SEX, SALARY) VALUES ('YITECE01','JOHN SCOTT','BANGALORE','M', 450000);

INSERT INTO EMPLOYEE (SSN, name, ADDRESS, SEX, SALARY) VALUES ('YITCSE01','MANJUNATH KAMATH','BANGALORE','M', 500000);

INSERT INTO EMPLOYEE (SSN, name, ADDRESS, SEX, SALARY) VALUES ('YITCSE02','ASHWIN SHENOY','BANGALORE','M', 700000);

INSERT INTO EMPLOYEE (SSN, name, ADDRESS, SEX, SALARY) VALUES ('YITCSE03','RAJASHREE SCOTT','MYSORE','F', 500000);

INSERT INTO EMPLOYEE (SSN, name, ADDRESS, SEX, SALARY) VALUES ('YITCSE04','MIMITHA SHETTY','MANGALORE','F', 650000);

INSERT INTO EMPLOYEE (SSN, name, ADDRESS, SEX, SALARY) VALUES ('YITCSE05','VIJAY KUMAR','MYSORE','M', 450000);

INSERT INTO EMPLOYEE (SSN, name, ADDRESS, SEX, SALARY) VALUES ('YITCSE06','GURU NAIDU','BANGALORE','M', 800000);

INSERT INTO EMPLOYEE (SSN, name, ADDRESS, SEX, SALARY) VALUES ('YITACC01','NEETHA CHAUTA','MANGALORE','F', 350000);

INSERT INTO EMPLOYEE (SSN, name, ADDRESS, SEX, SALARY) VALUES ('YITACC02','DINESH KUMAR','MANGALORE','M', 300000);

INSERT INTO EMPLOYEE (SSN, name, ADDRESS, SEX, SALARY) VALUES ('YITISE01','BABITHA KULAL','MYSORE','F', 600000);

INSERT INTO EMPLOYEE (SSN, name, ADDRESS, SEX, SALARY) VALUES ('YITIT01','KRISHNAPRASAD P','BANGALORE','M', 500000);

SELECT \*FROM EMPLOYEE

INSERT INTO DEPARTMENT VALUES ('1','ACCOUNTS','01-JAN-17','YITACC02');

INSERT INTO DEPARTMENT VALUES ('2','IT','01-AUG-16','YITIT01');

INSERT INTO DEPARTMENT VALUES ('3','ECE','01-JUN-08','YITECE01');

INSERT INTO DEPARTMENT VALUES ('4','ISE','01-AUG-15','YITISE01');

INSERT INTO DEPARTMENT VALUES ('5','CSE','01-JUN-12','YITCSE05');

SELECT \* FROM DEPARTMENT

UPDATE EMPLOYEE SET

SUPERSSN=NULL, DNO='3'

WHERE SSN='YITECE01';

UPDATE EMPLOYEE SET

SUPERSSN='YITCSE02', DNO='5'

WHERE SSN='YITCSE01';

UPDATE EMPLOYEE SET

SUPERSSN='YITCSE03', DNO='5'

WHERE SSN='YITCSE02';

UPDATE EMPLOYEE SET

SUPERSSN='YITCSE04', DNO='5'

WHERE SSN='YITCSE03';

UPDATE EMPLOYEE SET

DNO='5', SUPERSSN='YITCSE05'

WHERE SSN='YITCSE04';

UPDATE EMPLOYEE SET

DNO='5', SUPERSSN='YITCSE06'

WHERE SSN='YITCSE05';

UPDATE EMPLOYEE SET

DNO='5', SUPERSSN=NULL

WHERE SSN='YITCSE06';

UPDATE EMPLOYEE SET

DNO='1', SUPERSSN='YITACC02'

WHERE SSN='YITACC01';

UPDATE EMPLOYEE SET

DNO='1', SUPERSSN=NULL

WHERE SSN='YITACC02';

UPDATE EMPLOYEE SET

DNO='4', SUPERSSN=NULL

WHERE SSN='YITISE01';

UPDATE EMPLOYEE SET

DNO='2', SUPERSSN=NULL

WHERE SSN='YITIT01';

INSERT INTO DLOCATION VALUES ('BANGALORE', '1');

INSERT INTO DLOCATION VALUES ('BANGALORE', '2');

INSERT INTO DLOCATION VALUES ('BANGALORE', '3');

INSERT INTO DLOCATION VALUES ('MANGALORE', '4');

INSERT INTO DLOCATION VALUES ('MANGALORE', '5');

SELECT \*FROM DLOCATION

INSERT INTO PROJECT VALUES (100,'IOT','BANGALORE','5');

INSERT INTO PROJECT VALUES (101,'IMAGE PROCESSING','BANGALORE','5');

INSERT INTO PROJECT VALUES (102,'VIDEO PROCESSING','BANGALORE','5');

INSERT INTO PROJECT VALUES (103,'DSP','BANGALORE','3');

INSERT INTO PROJECT VALUES (104,'BANK MANAGEMENT','BANGALORE','1');

INSERT INTO PROJECT VALUES (105,'SALARY MANAGEMENT','BANGALORE','1');

INSERT INTO PROJECT VALUES (106,'BIG DATA ANALYTICS','BANGALORE','4');

INSERT INTO PROJECT VALUES (107,'SMART CITY','BANGALORE','2');

SELECT \* FROM PROJECT

INSERT INTO WORKS\_ON VALUES (4, 'YITCSE01', 100);

INSERT INTO WORKS\_ON VALUES (6, 'YITCSE01', 101);

INSERT INTO WORKS\_ON VALUES (8, 'YITCSE01', 102);

INSERT INTO WORKS\_ON VALUES (10, 'YITCSE02', 100);

INSERT INTO WORKS\_ON VALUES (3, 'YITCSE04', 100);

INSERT INTO WORKS\_ON VALUES (4, 'YITCSE05', 101);

INSERT INTO WORKS\_ON VALUES (5, 'YITCSE06', 102);

INSERT INTO WORKS\_ON VALUES (6, 'YITCSE03', 102);

INSERT INTO WORKS\_ON VALUES (7, 'YITECE01', 103);

INSERT INTO WORKS\_ON VALUES (5, 'YITACC01', 104);

INSERT INTO WORKS\_ON VALUES (6, 'YITACC02', 105);

INSERT INTO WORKS\_ON VALUES (4, 'YITISE01', 106);

INSERT INTO WORKS\_ON VALUES (10, 'YITIT01', 107);

SELECT \* FROM WORKS\_ON

first is manager and after union is for workers

select pr.pno from project pr

inner join department dp on dp.dno=pr.dno

inner join employee ep on ep.ssn=dp.MGRSSN

where lower(name) like '%scott'

union

select pr.pno from project pr

inner join works\_on wk on wk.pno=pr.pno

inner join employee ep on ep.ssn=wk.ssn

where lower(name) like '%scott'

SELECT E.NAME, 1.1\*E.SALARY AS INCR\_SAL,E.SALARY AS OLD\_SAL

FROM EMPLOYEE E, WORKS\_ON W, PROJECT P

WHERE E.SSN=W.SSN

AND W.PNO=P.PNO

AND P.PNAME='IOT';

SELECT SUM (E.SALARY), MAX (E.SALARY), MIN (E.SALARY), AVG (E.SALARY)

FROM EMPLOYEE E, DEPARTMENT D

WHERE E.DNO=D.DNO

AND D.DNAME='ACCOUNTS';

SELECT E.NAME

FROM EMPLOYEE E

WHERE NOT exists

(

(SELECT PNO

FROM PROJECT WHERE DNO='5')

MINUS

(SELECT PNO

FROM WORKS\_ON w

WHERE E.SSN=w.SSN)

);

SELECT D.DNO, COUNT (\*)

FROM DEPARTMENT D, EMPLOYEE E

WHERE D.DNO=E.DNO

AND E.SALARY>600000

AND D.DNO IN (SELECT E1.DNO

FROM EMPLOYEE E1

GROUP BY E1.DNO

HAVING COUNT (\*)>5)

GROUP BY D.DNO;