**1 PROGRAM**

CREATE TABLE CARD (

CARD\_NO VARCHAR (10) PRIMARY KEY );

CREATE TABLE PUBLISHER (

NAME VARCHAR (20) PRIMARY KEY,

PHONE VARCHAR(20),

ADDRESS VARCHAR (100));

CREATE TABLE BOOK (

BOOK\_ID VARCHAR (10) PRIMARY KEY,

TITLE VARCHAR (20),

PUB\_YEAR VARCHAR (20),

PUBLISHER\_NAME VARCHAR (20),

FOREIGN KEY (PUBLISHER\_NAME) REFERENCES PUBLISHER (NAME) ON DELETE CASCADE);

CREATE TABLE BOOK\_AUTHORS (

AUTHOR\_NAME VARCHAR (20),

BOOK\_ID VARCHAR (10),

PRIMARY KEY (BOOK\_ID, AUTHOR\_NAME),

FOREIGN KEY (BOOK\_ID) REFERENCES BOOK (BOOK\_ID) ON DELETE CASCADE);

CREATE TABLE LIBRARY\_PROGRAMME (

PROGRAMME\_ID VARCHAR (10) PRIMARY KEY,

PROGRAMME\_NAME VARCHAR (50),

ADDRESS VARCHAR (100));

CREATE TABLE BOOK\_COPIES (

NO\_OF\_COPIES VARCHAR (5),

BOOK\_ID VARCHAR (10),

PROGRAMME\_ID VARCHAR (10),

PRIMARY KEY (BOOK\_ID,PROGRAMME\_ID),

FOREIGN KEY (BOOK\_ID) REFERENCES BOOK (BOOK\_ID) ON DELETE CASCADE,

FOREIGN KEY (PROGRAMME\_ID) REFERENCES LIBRARY\_PROGRAMME (PROGRAMME\_ID) ON DELETE CASCADE);

CREATE TABLE BOOK\_LENDING (

DATE\_OUT DATE,

DUE\_DATE DATE,

BOOK\_ID VARCHAR (10),

PROGRAMME\_ID VARCHAR (10),

CARD\_NO VARCHAR (10),

PRIMARY KEY (BOOK\_ID,PROGRAMME\_ID, CARD\_NO),

FOREIGN KEY (BOOK\_ID) REFERENCES BOOK (BOOK\_ID) ON DELETE CASCADE,

FOREIGN KEY (PROGRAMME\_ID) REFERENCES LIBRARY\_PROGRAMME (PROGRAMME\_ID) ON DELETE CASCADE,

FOREIGN KEY (CARD\_NO) REFERENCES CARD (CARD\_NO) ON DELETE CASCADE);

**-------------INSERT----------------**

INSERT INTO CARD VALUES ('100');

INSERT INTO CARD VALUES ('101');

INSERT INTO CARD VALUES ('102');

INSERT INTO CARD VALUES ('103');

INSERT INTO CARD VALUES ('104');

INSERT INTO PUBLISHER VALUES ('MCGRAW-HILL', '9989076587','BANGALORE');

INSERT INTO PUBLISHER VALUES ('PEARSON', '9889076565','NEWDELHI');

INSERT INTO PUBLISHER VALUES ('PRENTICE HALL', '7455679345','HYEDRABAD');

INSERT INTO PUBLISHER VALUES ('WILEY', '8970862340','CHENNAI');

INSERT INTO PUBLISHER VALUES ('MIT','7756120238','BANGALORE');

INSERT INTO BOOK VALUES (1,'DBMS','13-01-2017', 'MCGRAW-HILL');

INSERT INTO BOOK VALUES (2,'ADBMS','25-06-2016','MCGRAW-HILL');

INSERT INTO BOOK VALUES (3, 'CD','22-10-2016','PEARSON');

INSERT INTO BOOK VALUES (4,' ALGORITHMS ','24-10-2015','MIT');

INSERT INTO BOOK VALUES (5,'OS','08-05-2016','PEARSON');

INSERT INTO BOOK\_AUTHORS VALUES ('NAVATHE', '1');

INSERT INTO BOOK\_AUTHORS VALUES ('NAVATHE', '2');

INSERT INTO BOOK\_AUTHORS VALUES ('ULLMAN','3');

INSERT INTO BOOK\_AUTHORS VALUES ('CHARLES', '4');

INSERT INTO BOOK\_AUTHORS VALUES('GALVIN', '5');

INSERT INTO LIBRARY\_PROGRAMME VALUES ('10','VIJAY NAGAR','MYSURU');

INSERT INTO LIBRARY\_PROGRAMME VALUES ('11','VIDYANAGAR','HUBLI');

INSERT INTO LIBRARY\_PROGRAMME VALUES('12','KUVEMPUNAGAR','MYSURU');

INSERT INTO LIBRARY\_PROGRAMME VALUES('13','RAJAJINAGAR','BANGALORE');

INSERT INTO LIBRARY\_PROGRAMME VALUES ('14','MANIPAL','UDUPI');

INSERT INTO BOOK\_COPIES VALUES ('10', '1', '10');

INSERT INTO BOOK\_COPIES VALUES ('5', '1', '11');

INSERT INTO BOOK\_COPIES VALUES ('2', '2', '12');

INSERT INTO BOOK\_COPIES VALUES ('5', '2', '13');

INSERT INTO BOOK\_COPIES VALUES ('7', '3', '14');

INSERT INTO BOOK\_COPIES VALUES ('1', '5', '10');

INSERT INTO BOOK\_COPIES VALUES ('3', '4', '11');

INSERT INTO BOOK\_LENDING VALUES ('01-01-2017','01-06-2017', '1', '10', '101');

INSERT INTO BOOK\_LENDING VALUES ('01-11-2017 ','03-11-2017', '3', '14', '101');

INSERT INTO BOOK\_LENDING VALUES ('02-21-2017','04-21-2017', '2', '13', '101');

INSERT INTO BOOK\_LENDING VALUES ('03-15-2017 ','07-15-2017', '4', '11', '101');

INSERT INTO BOOK\_LENDING VALUES ('04-12-2017','05-12-2017', '1', '11', '104');

**1-QUERIES**

1- - SELECT B.BOOK\_ID, B.TITLE, B.PUBLISHER\_NAME, A.AUTHOR\_NAME,

C.NO\_OF\_COPIES, L.PROGRAMME\_ID FROM BOOK B, BOOK\_AUTHORS A, BOOK\_COPIES

C, LIBRARY\_PROGRAMME L WHERE B.BOOK\_ID=A.BOOK\_ID AND

B.BOOK\_ID=C.BOOK\_ID AND L.PROGRAMME\_ID=C.PROGRAMME\_ID;

2-- SELECT CARD\_NO FROM BOOK\_LENDING WHERE DATE\_OUT

BETWEEN '01-01-2017'AND '04-21-2017' GROUP BY CARD\_NO

HAVING COUNT(\*)>3;

3-- DELETE FROM BOOK WHERE BOOK\_ID=3;

4.1-- CREATE VIEW VW\_PUBLICATION AS SELECT PUB\_YEAR FROM BOOK;

4.2--- SELECT \* FROM VW\_PUBLICATION;

**2 PROGRAM**

CREATE TABLE SALESMAN (

SALESMAN\_ID VARCHAR(4) PRIMARY KEY,

NAME VARCHAR(20),

CITY VARCHAR(20),

COMMISSION VARCHAR(20));

CREATE TABLE CUSTOMER (

CUSTOMER\_ID VARCHAR(5) PRIMARY KEY,

CUST\_NAME VARCHAR(20),

CITY VARCHAR(20),

GRADE VARCHAR(4),

SALESMAN\_ID VARCHAR(6),

FOREIGN KEY (SALESMAN\_ID) REFERENCES SALESMAN (SALESMAN\_ID) ON DELETE SET NULL);

CREATE TABLE ORDERS (

ORD\_NO VARCHAR(5) PRIMARY KEY,

PURCHASE\_AMT VARCHAR(10),

ORD\_DATE DATE,

CUSTOMER\_ID VARCHAR(4),

SALESMAN\_ID VARCHAR(4),

FOREIGN KEY (CUSTOMER\_ID) REFERENCES CUSTOMER (CUSTOMER\_ID) ON DELETE CASCADE,

FOREIGN KEY (SALESMAN\_ID) REFERENCES SALESMAN (SALESMAN\_ID) ON DELETE CASCADE);

**INSERT---------------------**

INSERT INTO SALESMAN VALUES(101,'RICHARD','LOS ANGELES','18%');

INSERT INTO SALESMAN VALUES(103,'GEORGE','NEWYORK','32%');

INSERT INTO SALESMAN VALUES(110,'CHARLES','BANGALORE','54%');

INSERT INTO SALESMAN VALUES(122,'ROWLING','PHILADELPHIA','46%');

INSERT INTO SALESMAN VALUES(126,'KURT','CHICAGO','52%');

INSERT INTO SALESMAN VALUES(132,'EDWIN','PHOENIX','41%');

INSERT INTO CUSTOMER VALUES('501','SMITH','LOS ANGELES','10','103');

INSERT INTO CUSTOMER VALUES('510','BROWN','ATLANTA','14','122');

INSERT INTO CUSTOMER VALUES('522','LEWIS','BANGALORE','10','132');

INSERT INTO CUSTOMER VALUES('534','PHILIPS','BOSTON','17','103');

INSERT INTO CUSTOMER VALUES('543','EDWARD','BANGALORE','14','110');

INSERT INTO CUSTOMER VALUES('550','PARKER','ATLANTA','19','126');

INSERT INTO ORDERS VALUES('1','1000', '05-04-2017','501','103');

INSERT INTO ORDERS VALUES('2','4000','01-20-2017','522','132');

INSERT INTO ORDERS VALUES('3','2500', '02-24-2017','550','126');

INSERT INTO ORDERS VALUES('5','6000','04-13-2017','522','103');

INSERT INTO ORDERS VALUES('6','7000', '03-092017','550','126');

INSERT INTO ORDERS VALUES ('7','3400','01-20-2017','501','122');

**2--QUERIES-------------------------**

**1--** SELECT GRADE, COUNT (CUSTOMER\_ID) FROM

CUSTOMER GROUP BY GRADE

HAVING GRADE > (SELECT AVG (GRADE) FROM

CUSTOMER WHERE CITY='BANGALORE');

**2--** SELECT SALESMAN\_ID,NAME

FROM SALESMAN A

WHERE 1 <(SELECT COUNT(\*) FROM CUSTOMER

WHERE SALESMAN\_ID=A.SALESMAN\_ID);

**3--** SELECT S.SALESMAN\_ID,NAME,CUST\_NAME,COMMISSION FROM SALESMAN

S,CUSTOMER C WHERE S.CITY = C.CITY

UNION

SELECT SALESMAN\_ID, NAME, 'NO MATCH',COMMISSION FROM SALESMAN

WHERE NOT CITY = ANY (SELECT CITY

FROM CUSTOMER) ORDER BY 2 DESC;

**4--** CREATE VIEW VW\_ELITSALESMAN AS

SELECT B.ORD\_DATE,A.SALESMAN\_ID,A.NAME FROM SALESMAN A, ORDERS B

WHERE A.SALESMAN\_ID = B.SALESMAN\_ID AND B.PURCHASE\_AMT=(SELECT

MAX(PURCHASE\_AMT) FROM ORDERS C

WHERE C.ORD\_DATE = B.ORD\_DATE);

4.1--SELECT \* FROM VW\_ELITSALESMAN;

5-- DELETE FROM SALESMAN WHERE SALESMAN\_ID=101;

**PROGRAM ---3**

CREATE TABLE ACTOR (

ACT\_ID VARCHAR (5) PRIMARY KEY,

ACT\_NAME VARCHAR (20),

ACT\_GENDER VARCHAR (1));

CREATE TABLE DIRECTOR (

DIR\_ID VARCHAR (5) PRIMARY KEY,

DIR\_NAME VARCHAR (20),

DIR\_PHONE VARCHAR (10));

CREATE TABLE MOVIES (

MOV\_ID VARCHAR (4) PRIMARY KEY,

MOV\_TITLE VARCHAR (50),

MOV\_YEAR VARCHAR (4),

MOV\_LANG VARCHAR (20),

DIR\_ID VARCHAR (5),

FOREIGN KEY (DIR\_ID) REFERENCES DIRECTOR(DIR\_ID));

CREATE TABLE MOVIES\_CAST (

ACT\_ID VARCHAR (5),

MOV\_ID VARCHAR (5),

ROLE VARCHAR (20),

PRIMARY KEY (ACT\_ID, MOV\_ID),

FOREIGN KEY (ACT\_ID) REFERENCES ACTOR (ACT\_ID),

FOREIGN KEY (MOV\_ID) REFERENCES MOVIES (MOV\_ID));

CREATE TABLE RATING (

MOV\_ID VARCHAR (5) PRIMARY KEY,

REV\_STARS VARCHAR (25),

FOREIGN KEY (MOV\_ID) REFERENCES MOVIES (MOV\_ID));

**INSERT----------------------------**

INSERT INTO ACTOR VALUES ('1', 'MADHURI DIXIT', 'F');

INSERT INTO ACTOR VALUES ('2', 'AAMIR KHAN', 'M');

INSERT INTO ACTOR VALUES ('3', 'JUHI CHAWLA', 'F');

INSERT INTO ACTOR VALUES ('4', 'SRIDEVI', 'F');

INSERT INTO ACTOR VALUES ('5', 'SALMAN KHAN', 'M');

INSERT INTO DIRECTOR VALUES ('100','SUBHASH KAPOOR','9346452542');

INSERT INTO DIRECTOR VALUES ('101','ALYAN TAYLOR','9966135231');

INSERT INTO DIRECTOR VALUES ('102','SANTOSH ANANDDRAM','9966196437');

INSERT INTO DIRECTOR VALUES ('103','HITCHCOCK','9966166382');

INSERT INTO DIRECTOR VALUES ('104','STEVEN SPIELBERG','9966138934');

INSERT INTO MOVIES VALUES ('500','JAB HARRY MET SEJAL','2017','HINDI','100');

INSERT INTO MOVIES VALUES ('501','RAJAKUMARA','2017','KANNADA','101');

INSERT INTO MOVIES VALUES ('502','JOLLY LLB 2', '2013','HINDI', '102');

INSERT INTO MOVIES VALUES ('503','TERMINATOR GENESYS','2015','ENGLISH','103');

INSERT INTO MOVIES VALUES ('504','JAWS','1975','ENGLISH','104');

INSERT INTO MOVIES VALUES ('505','BRIDGE OF SPIES','2015','ENGLISH', '104');

INSERT INTO MOVIES VALUES ('506','VERTIGO','1943','ENGLISH','103');

INSERT INTO MOVIES\_CAST VALUES ('1', '501','HEROINE');

INSERT INTO MOVIES\_CAST VALUES ('1', '502','HERO');

INSERT INTO MOVIES\_CAST VALUES ('3', '503','COMEDIAN');

INSERT INTO MOVIES\_CAST VALUES ('4', '504','GUEST');

INSERT INTO MOVIES\_CAST VALUES ('4', '501','HERO');

INSERT INTO RATING VALUES ('501', '4');

INSERT INTO RATING VALUES ('502', '2');

INSERT INTO RATING VALUES ('503', '5');

INSERT INTO RATING VALUES ('504', '4');

INSERT INTO RATING VALUES ('505', '3');

INSERT INTO RATING VALUES ('506', '2');

**3--QUERIES---------------**

**1--** SELECT MOV\_TITLE FROM MOVIES M, DIRECTOR D WHERE M.DIR\_ID=D.DIR\_ID

AND DIR\_NAME='HITCHCOCK';

2-- SELECT MOV\_TITLE FROM MOVIES M, MOVIES\_CAST MV

WHERE M.MOV\_ID=MV.MOV\_ID AND ACT\_ID IN(SELECT ACT\_ID FROM

MOVIES\_CAST GROUP BY ACT\_ID HAVING COUNT(ACT\_ID)>1) GROUP BY

MOV\_TITLE HAVING COUNT(\*)>1;

3-- SELECT ACT\_NAME, MOV\_TITLE, MOV\_YEAR FROM ACTOR A JOIN

MOVIES\_CAST C ON A.ACT\_ID=C.ACT\_ID INNER JOIN MOVIES M

ON C.MOV\_ID=M.MOV\_ID WHERE M.MOV\_YEAR NOT BETWEEN 2000 AND 2015;

4-- SELECT MOV\_TITLE,MAX(REV\_STARS) FROM MOVIES M ,RATING R WHERE

M.MOV\_ID=R.MOV\_ID GROUP BY MOV\_TITLE HAVING MAX(REV\_STARS)>0 ORDER

BY MOV\_TITLE;

5-- UPDATE RATING SET REV\_STARS=5 WHERE MOV\_ID IN(SELECT MOV\_ID FROM

MOVIES WHERE DIR\_ID IN(SELECT DIR\_ID FROM DIRECTOR

WHERE DIR\_NAME='STEVEN SPIELBERG'));

**PROGRAM ---4**

CREATE TABLE STUDENT (

USN VARCHAR (15) PRIMARY KEY,

SNAME VARCHAR (25),

ADDRESS VARCHAR (25),

PHONE VARCHAR (10),

GENDER VARCHAR (10));

CREATE TABLE SEMSEC (

SSID VARCHAR (10) PRIMARY KEY,

SEM VARCHAR (10),

SEC VARCHAR (10));

CREATE TABLE CLASS (

USN VARCHAR (15),

SSID VARCHAR (10),

PRIMARY KEY (USN, SSID),

FOREIGN KEY (USN) REFERENCES STUDENT (USN),

FOREIGN KEY (SSID) REFERENCES SEMSEC (SSID));

CREATE TABLE SUBJECT(

SUBCODE VARCHAR(10) PRIMARY KEY,

TITLE VARCHAR(20),

SEM VARCHAR(10),

CREDITS VARCHAR(10));

CREATE TABLE IAMARKS (

USN VARCHAR (15),

SUBCODE VARCHAR (10),

SSID VARCHAR (10),

TEST1 VARCHAR (10),

TEST2 VARCHAR (10),

TEST3 VARCHAR (10),

FINALIA VARCHAR (10),

PRIMARY KEY (USN, SUBCODE, SSID),

FOREIGN KEY (USN) REFERENCES STUDENT (USN),

FOREIGN KEY (SUBCODE) REFERENCES SUBJECT (SUBCODE),

FOREIGN KEY (SSID) REFERENCES SEMSEC (SSID));

**INSERT---------------------------------------------------------**

INSERT INTO STUDENT VALUES ('4AD13CS020','AKSHAY','BELAGAVI', 8877881122,'M');

INSERT INTO STUDENT VALUES ('4AD13CS062','SANDHYA','BENGALURU', 7722829912,'F');

INSERT INTO STUDENT VALUES ('4AD13CS091','TEESHA','BENGALURU', 7712312312,'F');

INSERT INTO STUDENT VALUES ('4AD13CS066','SUPRIYA','MANGALURU', 8877881122,'F');

INSERT INTO STUDENT VALUES ('4AD14CS010','ABHAY','BENGALURU', 9900211201,'M');

INSERT INTO STUDENT VALUES ('4AD14CS032','BHASKAR','BENGALURU', 9923211099,'M');

INSERT INTO STUDENT VALUES ('4AD14CS025','ASMI','BENGALURU', 7894737377,'F');

INSERT INTO STUDENT VALUES ('4AD15CS011','AJAY','TUMKUR', 9845091341,'M');

INSERT INTO STUDENT VALUES ('4AD15CS029','CHITRA','DAVANGERE', 7696772121,'F');

INSERT INTO STUDENT VALUES ('4AD15CS045','JEEVA','BELLARY', 9944850121,'M');

INSERT INTO STUDENT VALUES ('4AD15CS091','SANTOSH','MANGALURU', 8812332201,'M')

INSERT INTO STUDENT VALUES ('4AD16CS045','ISMAIL','KABURGI', 9900232201,'M');

INSERT INTO STUDENT VALUES ('4AD16CS088','SAMEERA','SHIMOGA', 9905542212,'F');

INSERT INTO STUDENT VALUES ('4AD16CS122','VINAYAKA','CHIKAMAGALUR', 8800880011,'M');

INSERT INTO SEMSEC VALUES ('CSE8A', 8,'A');

INSERT INTO SEMSEC VALUES ('CSE8B', 8,'B');

INSERT INTO SEMSEC VALUES ('CSE8C', 8,'C');

INSERT INTO SEMSEC VALUES ('CSE7A', 7,'A');

INSERT INTO SEMSEC VALUES ('CSE7B', 7,'B');

INSERT INTO SEMSEC VALUES ('CSE7C', 7,'C');

INSERT INTO SEMSEC VALUES ('CSE6A', 6,'A');

INSERT INTO SEMSEC VALUES ('CSE6B', 6,'B');

INSERT INTO SEMSEC VALUES ('CSE6C', 6,'C');

INSERT INTO SEMSEC VALUES ('CSE5A', 5,'A');

INSERT INTO SEMSEC VALUES ('CSE5B', 5,'B');

INSERT INTO SEMSEC VALUES ('CSE5C', 5,'C');

INSERT INTO SEMSEC VALUES ('CSE4A', 4,'A');

INSERT INTO SEMSEC VALUES ('CSE4B', 4,'B');

INSERT INTO SEMSEC VALUES ('CSE4C', 4,'C');

INSERT INTO SEMSEC VALUES ('CSE3A', 3,'A');

INSERT INTO SEMSEC VALUES ('CSE3B', 3,'B');

INSERT INTO SEMSEC VALUES ('CSE3C', 3,'C');

INSERT INTO SEMSEC VALUES ('CSE2A', 2,'A');

INSERT INTO SEMSEC VALUES ('CSE2B', 2,'B');

INSERT INTO SEMSEC VALUES ('CSE2C', 2,'C');

INSERT INTO SEMSEC VALUES ('CSE1A', 1,'A');

INSERT INTO SEMSEC VALUES ('CSE1B', 1,'B');

INSERT INTO SEMSEC VALUES ('CSE1C', 1,'C');

INSERT INTO CLASS VALUES ('4AD13CS020','CSE8A');

INSERT INTO CLASS VALUES ('4AD13CS062','CSE8A');

INSERT INTO CLASS VALUES ('4AD13CS066','CSE8B');

INSERT INTO CLASS VALUES ('4AD13CS091','CSE8C');

INSERT INTO CLASS VALUES ('4AD14CS010','CSE7A');

INSERT INTO CLASS VALUES ('4AD14CS025','CSE7A');

INSERT INTO CLASS VALUES ('4AD14CS032','CSE7A');

INSERT INTO CLASS VALUES ('4AD15CS011','CSE4A');

INSERT INTO CLASS VALUES ('4AD15CS029','CSE4A');

INSERT INTO CLASS VALUES ('4AD15CS045','CSE4B');

INSERT INTO CLASS VALUES ('4AD15CS091','CSE4C');

INSERT INTO CLASS VALUES ('4AD16CS045','CSE3A');

INSERT INTO CLASS VALUES ('4AD16CS088','CSE3B');

INSERT INTO CLASS VALUES ('4AD16CS122','CSE3C');

INSERT INTO SUBJECT VALUES ('10CS81','ACA', 8, 4);

INSERT INTO SUBJECT VALUES ('10CS82','SSM', 8, 4);

INSERT INTO SUBJECT VALUES ('10CS83','NM', 8, 4);

INSERT INTO SUBJECT VALUES ('10CS84','CC', 8, 4);

INSERT INTO SUBJECT VALUES ('10CS85','PW', 8, 4);

INSERT INTO SUBJECT VALUES ('10CS71','OOAD', 7, 4);

INSERT INTO SUBJECT VALUES ('10CS72','ECS', 7, 4);

INSERT INTO SUBJECT VALUES ('10CS73','PTW', 7, 4);

INSERT INTO SUBJECT VALUES ('10CS74','DWDM', 7, 4);

INSERT INTO SUBJECT VALUES ('10CS75','JAVA', 7, 4);

INSERT INTO SUBJECT VALUES ('10CS76','SAN', 7, 4);

INSERT INTO SUBJECT VALUES ('15CS51', 'ME', 5, 4);

INSERT INTO SUBJECT VALUES ('15CS52','CN', 5, 4);

INSERT INTO SUBJECT VALUES ('15CS53','DBMS', 5, 4);

INSERT INTO SUBJECT VALUES ('15CS54','ATC', 5, 4);

INSERT INTO SUBJECT VALUES ('15CS55','JAVA', 5, 3);

INSERT INTO SUBJECT VALUES ('15CS56','AI', 5, 3);

INSERT INTO SUBJECT VALUES ('15CS41','M4', 4, 4);

INSERT INTO SUBJECT VALUES ('15CS42','SE', 4, 4);

INSERT INTO SUBJECT VALUES ('15CS43','DAA', 4, 4);

INSERT INTO SUBJECT VALUES ('15CS44','MPMC', 4, 4);

INSERT INTO SUBJECT VALUES ('15CS45','OOC', 4, 3);

INSERT INTO SUBJECT VALUES ('15CS46','DC', 4, 3);

INSERT INTO SUBJECT VALUES ('15CS31','M3', 3, 4);

INSERT INTO SUBJECT VALUES ('15CS32','ADE', 3, 4);

INSERT INTO SUBJECT VALUES ('15CS33','DSA', 3, 4);

INSERT INTO SUBJECT VALUES ('15CS34','CO', 3, 4);

INSERT INTO SUBJECT VALUES ('15CS35','USP', 3, 3);

INSERT INTO SUBJECT VALUES ('15CS36','DMS', 3, 3);

INSERT INTO IAMARKS VALUES ('4AD13CS091','10CS81','CSE8C', 15, 16, 18,0);

INSERT INTO IAMARKS VALUES ('4AD13CS091','10CS82','CSE8C', 12, 19, 14,0);

INSERT INTO IAMARKS VALUES ('4AD13CS091','10CS83','CSE8C', 19, 15, 20,0);

INSERT INTO IAMARKS VALUES ('4AD13CS091','10CS84','CSE8C', 20, 16, 19,0);

INSERT INTO IAMARKS VALUES ('4AD13CS091','10CS85','CSE8C', 15, 15, 12,0);

**4---QUERIES-------------------**

1--SELECT S.\*, SS.SEM, SS.SEC FROM STUDENT S, SEMSEC SS, CLASS C WHERE

S.USN=C.USN AND SS.SSID=C.SSID AND SS.SEM=4 AND SS.SEC='C';

2-- SELECT SS.SEM, SS.SEC, S.GENDER, COUNT (S.GENDER) AS COUNT FROM STUDENT S, SEMSEC SS, CLASS C

WHERE S.USN = C.USN AND SS.SSID = C.SSID GROUP BY SS.SEM, SS.SEC, S.GENDER ORDER BY SEM;

3-- CREATE VIEW VW\_STUDENT\_TESTS AS SELECT TEST1,SUBCODE FROM

IAMARKS WHERE USN= '4AD13CS091';

3.1-- SELECT \* FROM VW\_STUDENT\_TESTS;

4-- UPDATE IAMARKS

SET FINALIA=GREATEST(TEST1+TEST2,TEST2+TEST3,TEST1+TEST3)/2;

5-- SELECT S.USN,S.SNAME,S.ADDRESS,S.PHONE,S.GENDER,

(CASE

WHEN IA.FINALIA BETWEEN 17 AND 20 THEN 'OUTSTANDING'

WHEN IA. FINALIA BETWEEN 12 AND 16 THEN 'AVERAGE'

ELSE 'WEAK'

END) AS CAT

FROM STUDENT S, SEMSEC SS, IAMARKS IA, SUBJECT SUB WHERE S.USN = IA.USN

AND SS.SSID = IA.SSID AND SUB.SUBCODE = IA.SUBCODE AND SUB.SEM = 8;

**PROGRAM—5**

CREATE TABLE DEPARTMENT (

DNO VARCHAR (20) PRIMARY KEY,

DNAME VARCHAR (20),

MGRSTARTDATE DATE,

MGRSSN VARCHAR (20));

CREATE TABLE EMPLOYEE (

SSN VARCHAR (20) PRIMARY KEY,

FNAME VARCHAR (20),

LNAME VARCHAR (20),

ADDRESS VARCHAR (100),

SEX VARCHAR (10),

SALARY VARCHAR (10),

SUPERSSN VARCHAR (20),

DNO VARCHAR (20),

FOREIGN KEY (SUPERSSN) REFERENCES EMPLOYEE (SSN),

FOREIGN KEY (DNO) REFERENCES DEPARTMENT (DNO));

EMPLOYEE(SSN);

CREATE TABLE DLOCATION (

DLOC VARCHAR (20),

DNO VARCHAR (20),

PRIMARY KEY (DNO, DLOC),

FOREIGN KEY (DNO) REFERENCES DEPARTMENT (DNO));

CREATE TABLE PROJECT (

PNO VARCHAR (10) PRIMARY KEY,

PNAME VARCHAR (20),

PLOCATION VARCHAR (20),

DNO VARCHAR (20),

FOREIGN KEY (DNO) REFERENCES DEPARTMENT (DNO));

CREATE TABLE WORKS\_ON (

HOURS VARCHAR (4),

SSN VARCHAR (20),

PNO VARCHAR (10),

PRIMARY KEY (SSN, PNO),

FOREIGN KEY (SSN) REFERENCES EMPLOYEE (SSN),

FOREIGN KEY (PNO) REFERENCES PROJECT (PNO));

**INSERT------------------------------------**

INSERT INTO EMPLOYEE VALUES ('ATMEECE01','JOHN','SCOTT','BANGALORE','M','450000',NULL,NULL);

INSERT INTO EMPLOYEE VALUES ('ATMECSE01','JAMES','SMITH','BANGALORE','M','500000',NULL,NULL);

INSERT INTO EMPLOYEE VALUES ('ATMECSE02','HEARN','BAKER','BANGALORE','M','700000',NULL,NULL);

INSERT INTO EMPLOYEE VALUES ('ATMECSE03','EDWARD','SCOTT','MYSORE','M','500000',NULL,NULL);

INSERT INTO EMPLOYEE VALUES ('ATMECSE04','PAVAN','HEGDE','MANGALORE','M','650000',NULL,NULL);

INSERT INTO EMPLOYEE VALUES ('ATMECSE05','GIRISH','MALYA','MYSORE','M','450000',NULL,NULL);

INSERT INTO EMPLOYEE VALUES ('ATMECSE06','NEHA','SN','BANGALORE','F','800000',NULL,NULL);

INSERT INTO EMPLOYEE VALUES ('ATMEACC01','AHANA','K','MANGALORE','F','350000',NULL,NULL);

INSERT INTO EMPLOYEE VALUES ('ATMEACC02','SANTHOSH','KUMAR','MANGALORE','M', '300000',NULL,NULL);

INSERT INTO EMPLOYEE VALUES ('ATMEISE01','VEENA','M','MYSORE','F','600000',NULL,NULL);

INSERT INTO EMPLOYEE VALUES ('ATMEIT01','NAGESH','HR','BANGALORE','M','500000',NULL,NULL);

INSERT INTO DEPARTMENT VALUES ('1','ACCOUNTS','08-01-2001','ATMEACC02');

INSERT INTO DEPARTMENT VALUES ('2','IT','08-01-2016','ATMEIT01');

INSERT INTO DEPARTMENT VALUES ('3','ECE','06-01-2008','ATMEECE01');

INSERT INTO DEPARTMENT VALUES ('4','ISE','06-01-2015','ATMEISE01');

INSERT INTO DEPARTMENT VALUES ('5','CSE','06-01-2002','ATMECSE05');

UPDATE EMPLOYEE SET SUPERSSN = 'ATMECSE02', Dno = '5' WHERE SSN = 'ATMECSE01';

UPDATE EMPLOYEE SET SUPERSSN = 'ATMECSE03', Dno = '5' WHERE SSN = 'ATMECSE02';

UPDATE EMPLOYEE SET SUPERSSN = 'ATMECSE04', Dno = '5' WHERE SSN = 'ATMECSE03';

UPDATE EMPLOYEE SET SUPERSSN = 'ATMECSE05', Dno = '5' WHERE SSN = 'ATMECSE04';

UPDATE EMPLOYEE SET SUPERSSN = 'ATMECSE06', Dno = '5' WHERE SSN = 'ATMECSE05';

UPDATE EMPLOYEE SET SUPERSSN = NULL, Dno = '5' WHERE SSN = 'ATMECSE06';

UPDATE EMPLOYEE SET SUPERSSN = 'ATMEACC02', Dno = '1' WHERE SSN = 'ATMEACC01';

UPDATE EMPLOYEE SET SUPERSSN = NULL, Dno = '1' WHERE SSN = 'ATMEACC02';

UPDATE EMPLOYEE SET SUPERSSN = NULL, Dno = '4' WHERE SSN = 'ATMEISE01';

UPDATE EMPLOYEE SET SUPERSSN = NULL, Dno = '2' WHERE SSN = 'ATMEIT01';

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');

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

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

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

INSERT INTO PROJECT VALUES ('103','SENSORS','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','OPENSTACK','BANGALORE','4');

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

INSERT INTO WORKS\_ON VALUES ('4', 'ATMECSE01', '100');

INSERT INTO WORKS\_ON VALUES ('6', 'ATMECSE01', '101');

INSERT INTO WORKS\_ON VALUES ('8', 'ATMECSE01', '102');

INSERT INTO WORKS\_ON VALUES ('10', 'ATMECSE02', '100');

INSERT INTO WORKS\_ON VALUES ('3', 'ATMECSE04', '100');

INSERT INTO WORKS\_ON VALUES ('4', 'ATMECSE05', '101');

INSERT INTO WORKS\_ON VALUES ('5', 'ATMECSE06', '102');

INSERT INTO WORKS\_ON VALUES ('6', 'ATMECSE03', '102');

INSERT INTO WORKS\_ON VALUES ('7', 'ATMEECE01', '103');

INSERT INTO WORKS\_ON VALUES ('5', 'ATMEACC01', '104');

INSERT INTO WORKS\_ON VALUES ('6', 'ATMEACC02', '105');

INSERT INTO WORKS\_ON VALUES ('4', 'ATMEISE01', '106');

INSERT INTO WORKS\_ON VALUES ('10', 'ATMEIT01', '107');

**5--QUERIES----------------------**

1--SELECT DISTINCT P.PNO FROM PROJECT P, DEPARTMENT D, EMPLOYEE E

WHERE E.DNO=D.DNO AND D.MGRSSN=E.SSN AND E.LNAME='SCOTT'

UNION

SELECT DISTINCT P1.PNO FROM PROJECT P1, WORKS\_ON W, EMPLOYEE E1

WHERE P1.PNO=W.PNO AND E1.SSN=W.SSN AND E1.LNAME='SCOTT';

2-- SELECT E.FNAME,1.1\*E.SALARY AS HIKE\_SALARY FROM EMPLOYEE E,WORKS\_ON W,PROJECT P

WHERE E.SSN=W.SSN AND P.PNO=W.PNO AND P.PNAME='IOT';

3-- SELECT SUM(E.SALARY) AS SUM\_SAL,MAX(E.SALARY) AS MAX\_SAL,MIN(E.SALARY)

AS MIN\_SAL,AVG(E.SALARY) AS AVG\_SAL FROM EMPLOYEE E,DEPARTMENT D

WHERE E.DNO=D.DNO AND D.DNAME='ACCOUNTS';

4-- SELECT E.FNAME FROM EMPLOYEE E

WHERE NOT EXISTS((SELECT P.PNO FROM PROJECT P WHERE P.DNO=5)

MINUS

(SELECT W.PNO FROM WORKS\_ON W WHERE E.SSN=W.SSN));

5-- SELECT DNO,COUNT(\*) AS NO\_OF\_EMPLOYEE FROM EMPLOYEE

WHERE SALARY>600000 AND DNO IN(SELECT DNO FROM EMPLOYEE

GROUP BY(DNO) HAVING COUNT(\*)>5) GROUP BY DNO;