1. **LIBRARY MANAGEMENT**

**CREATE TABLE BOOK (**

**BOOK\_ID INT (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 INT (10),**

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

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

**CREATE TABLE PUBLISHER (**

**NAME VARCHAR (20) PRIMARY KEY,**

**PHONE BIGINT (20),**

**ADDRESS VARCHAR (100));**

**CREATE TABLE BOOK\_COPIES (**

**NO\_OF\_COPIES INT (5),**

**BOOK\_ID INT (10),**

**PROGRAMME\_ID INT (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 INT (10),**

**PROGRAMME\_ID INT (10),**

**CARD\_NO INT (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);**

**CREATE TABLE CARD (**

**CARD\_NO INT (10) PRIMARY KEY);**

**CREATE TABLE LIBRARY\_PROGRAMME (**

**PROGRAMME\_ID INT (10) PRIMARY KEY,**

**PROGRAMME\_NAME VARCHAR (50),**

**ADDRESS VARCHAR (100));**

**INSERT INTO PUBLISHER VALUES (‘MCGRAW-HILL’, 9989076587, ‘BANGALORE’);**

**INSERT INTO PUBLISHER VALUES (‘PEARSON’, 9889076565, ‘NEWDELHI’);**

**INSERT INTO PUBLISHER VALUES (‘RANDOM HOUSE’, 7455679345, ‘HYDRABAD’);**

**INSERT INTO PUBLISHER VALUES (‘HACHETTE LIVRE’, 8970862340, ‘CHENAI’);**

**INSERT INTO PUBLISHER VALUES (‘GRUPO PLANETA’, 7756120238, ‘BANGALORE’);**

**INSERT INTO BOOK VALUES (1,’DBMS’,’JAN-2017’, ‘MCGRAW-HILL’);**

**INSERT INTO BOOK VALUES (2,’ADBMS’,’JUN-2016’, ‘MCGRAW-HILL’);**

**INSERT INTO BOOK VALUES (3,’CN’,’SEP-2016’, ‘PEARSON’);**

**INSERT INTO BOOK VALUES (4,’CG’,’SEP-2015’, ‘GRUPO PLANETA’);**

**INSERT INTO BOOK VALUES (5,’OS’,’MAY-2016’, ‘PEARSON’);**

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

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

**INSERT INTO BOOK\_AUTHORS VALUES (’TANENBAUM’, 3);**

**INSERT INTO BOOK\_AUTHORS VALUES (’EDWARD ANGEL’, 4);**

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

**INSERT INTO LIBRARY\_BRANCH VALUES (10,’RR NAGAR’,’BANGALORE’);**

**INSERT INTO LIBRARY\_BRANCH VALUES (11,’RNSIT’,’BANGALORE’);**

**INSERT INTO LIBRARY\_BRANCH VALUES (12,’RAJAJI NAGAR’, ’BANGALORE’);**

**INSERT INTO LIBRARY\_BRANCH VALUES (13,’NITTE’,’MANGALORE’);**

**INSERT INTO LIBRARY\_BRANCH 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 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 BOOK\_LENDING VALUES (’01-JAN-17’,’01-JUN-17’, 1, 10, 101);**

**INSERT INTO BOOK\_LENDING VALUES (’11-JAN-17’,’11-MAR-17’, 3, 14, 101);**

**INSERT INTO BOOK\_LENDING VALUES (’21-FEB-17’,’21-APR-17’, 2, 13, 101);**

**INSERT INTO BOOK\_LENDING VALUES (’15-MAR-17’,’15-JUL-17’, 4, 11, 101);**

**INSERT INTO BOOK\_LENDING VALUES (‘12-APR-17’,’12-MAY-17’, 1, 11, 104);**

**SELECT \* FROM PUBLISHER;**

**SELECT \* FROM BOOK;**

**SELECT \* FROM BOOK\_AUTHORS;**

**SELECT \* FROM LIBRARY\_BRANCH;**

**SELECT \* FROM CARD;SELECT \* FROM BOOK\_COPIES;**

**SELECT \* FROM BOOK\_LENDING;**

**QUERIES**

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

**C.NO\_OF\_COPIES, L.BRANCH\_ID**

**FROM BOOK B, BOOK\_AUTHORS A, BOOK\_COPIES C, LIBRARY\_BRANCH L**

**WHERE B.BOOK\_ID=A.BOOK\_ID**

**AND B.BOOK\_ID=C.BOOK\_ID**

**AND L.BRANCH\_ID=C.BRANCH\_ID;**

**SELECT CARD\_NO**

**FROM BOOK\_LENDING**

**WHERE DATE\_OUT BETWEEN ’01-JAN-2017’ AND ’01-JUL-2017’**

**GROUP BY CARD\_NO**

**HAVING COUNT (\*)>3;**

**DELETE FROM BOOK**

**WHERE BOOK\_ID=3;**

**CREATE VIEW V\_PUBLICATION AS**

**SELECT PUB\_YEAR**

**FROM BOOK;**

**CREATE VIEW V\_BOOKS AS**

**SELECT B.BOOK\_ID, B.TITLE, C.NO\_OF\_COPIES**

**FROM BOOK B, BOOK\_COPIES C, LIBRARY\_BRANCH L**

**WHERE B.BOOK\_ID=C.BOOK\_ID**

**AND C.BRANCH\_ID=L.BRANCH\_ID;**

1. **ORDER DATABASE**

**CREATE TABLE SALESMAN (**

**SALESMAN\_ID INT (4) PRIMARY KEY,**

**NAME VARCHAR (20),**

**CITY VARCHAR (20),**

**COMMISSION VARCHAR (20));**

**CREATE TABLE CUSTOMER (**

**CUSTOMER\_ID INT (5) PRIMARY KEY,**

**CUST\_NAME VARCHAR (20),**

**CITY VARCHAR (20), GRADE INT (4),**

**SALESMAN\_ID INT (6),**

**FOREIGN KEY (SALESMAN\_ID) REFERENCES SALESMAN (SALESMAN\_ID) ON DELETE**

**SET NULL);**

**CREATE TABLE ORDERS (**

**ORD\_NO INT (5) PRIMARY KEY,**

**PURCHASE\_AMT DECIMAL (10, 2),**

**ORD\_DATE DATE,**

**CUSTOMER\_ID INT (4),**

**SALESMAN\_ID INT (4),**

**FOREIGN KEY (CUSTOMER\_ID) REFERENCES CUSTOMER (CUSTOMER\_ID) ON DELETE**

**CASCADE,**

**FOREIGN KEY (SALESMAN\_ID) REFERENCES SALESMAN (SALESMAN\_ID) ON DELETE**

**CASCADE);**

**INSERT INTO SALESMAN VALUES (1000, ‘JOHN’,’BANGALORE’,’25 %’);**

**INSERT INTO SALESMAN VALUES (2000, ‘RAVI’,’BANGALORE’,’20 %’);**

**INSERT INTO SALESMAN VALUES (3000, ‘KUMAR’,’MYSORE’,’15 %’);**

**INSERT INTO SALESMAN VALUES (4000, ‘SMITH’,’DELHI’,’30 %’);**

**INSERT INTO SALESMAN VALUES (5000, ‘HARSHA’,’HYDRABAD’,’15%’);**

**INSERT INTO CUSTOMER1 VALUES (10, ‘PREETHI’,’BANGALORE’, 100, 1000);**

**INSERT INTO CUSTOMER1 VALUES (11, ‘VIVEK’,’MANGALORE’, 300, 1000);**

**INSERT INTO CUSTOMER1 VALUES (12, ‘BHASKAR’,’CHENNAI’, 400, 2000);**

**INSERT INTO CUSTOMER1 VALUES (13, ‘CHETHAN’,’BANGALORE’, 200, 2000);**

**INSERT INTO CUSTOMER1 VALUES (14, ‘MAMATHA’,’BANGALORE’, 400, 3000);**

**INSERT INTO ORDERS VALUES (50, 5000, ‘04-MAY-17’, 10, 1000);**

**INSERT INTO ORDERS VALUES (51, 450, ‘20-JAN-17’, 10, 2000);**

**INSERT INTO ORDERS VALUES (52, 1000, ‘24-FEB-17’, 13, 2000);**

**INSERT INTO ORDERS VALUES (53, 3500, ‘13-APR-17’, 14, 3000);**

**INSERT INTO ORDERS VALUES (54, 550, ‘09-MAR-17’, 12, 2000);**

**SELECT \* FROM SALESMAN;**

**SELECT \* FROM CUSTOMER1;**

**SELECT \* FROM ORDERS;**

**QUERIES**

**SELECT GRADE, COUNT (DISTINCT CUSTOMER\_ID) FROM CUSTOMER1 GROUP BY GRADE HAVING GRADE > (SELECT AVG(GRADE) FROM CUSTOMER1 WHERE CITY='BANGALORE');**

**SELECT SALESMAN\_ID, NAME FROM SALESMAN A WHERE 1 < (SELECT COUNT (\*) FROM CUSTOMER1 WHERE SALESMAN\_ID=A.SALESMAN\_ID);**

**SELECT SALESMAN.SALESMAN\_ID, NAME, CUST\_NAME, COMMISSION FROM SALESMAN, CUSTOMER1 WHERE SALESMAN.CITY = CUSTOMER1.CITY UNION SELECT SALESMAN\_ID, NAME, 'NO MATCH', COMMISSION FROM SALESMAN WHERE NOT CITY = ANY (SELECT CITY FROM CUSTOMER1) ORDER BY 2 DESC;**

**CREATE VIEW 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);**

**DELETE FROM SALESMAN WHERE SALESMAN\_ID=1000; SELECT \* FROM SALESMAN;**

1. **MOVIE DATABASE**

**CREATE TABLE ACTOR (**

**ACT\_ID INT (5) PRIMARY KEY,**

**ACT\_NAME VARCHAR (20),**

**ACT\_GENDER CHAR (1));**

**CREATE TABLE DIRECTOR (**

**DIR\_ID INT (5) PRIMARY KEY,**

**DIR\_NAME VARCHAR (20),**

**DIR\_PHONE BIGINT);**

**CREATE TABLE MOVIES**

**(MOV\_ID INT (4) PRIMARY KEY,**

**MOV\_TITLE VARCHAR (50),**

**MOV\_YEAR INT (4),**

**MOV\_LANG VARCHAR (20),**

**DIR\_ID INT (5),**

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

**CREATE TABLE MOVIES\_CAST (**

**ACT\_ID INT (5),**

**MOV\_ID INT (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 INT (5) PRIMARY KEY,**

**REV\_STARS VARCHAR (25),**

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

**INSERT INTO ACTOR VALUES (301,’ANUSHKA’,’F’);**

**INSERT INTO ACTOR VALUES (302,’PRABHAS’,’M’);**

**INSERT INTO ACTOR VALUES (303,’PUNITH’,’M’);**

**INSERT INTO ACTOR VALUES (304,’JERMY’,’M’);**

**INSERT INTO DIRECTOR VALUES (60,’RAJAMOULI’, 8751611001);**

**INSERT INTO DIRECTOR VALUES (61,’HITCHCOCK’, 7766138911);**

**INSERT INTO DIRECTOR VALUES (62,’FARAN’, 9986776531);**

**INSERT INTO DIRECTOR VALUES (63,’STEVEN SPIELBERG’, 8989776530);**

**INSERT INTO MOVIES VALUES (1001,’BAHUBALI-2’, 2017, ‘TELAGU’, 60);**

**INSERT INTO MOVIES VALUES (1002,’BAHUBALI-1’, 2015, ‘TELAGU’, 60);**

**INSERT INTO MOVIES VALUES (1003,’AKASH’, 2008, ‘KANNADA’, 61);**

**INSERT INTO MOVIES VALUES (1004,’WAR HORSE’, 2011, ‘ENGLISH’, 63);**

**INSERT INTO MOVIE\_CAST VALUES (301, 1002, ‘HEROINE’);**

**INSERT INTO MOVIE\_CAST VALUES (301, 1001, ‘HEROINE’);**

**INSERT INTO MOVIE\_CAST VALUES (303, 1003, ‘HERO’);**

**INSERT INTO MOVIE\_CAST VALUES (303, 1002, ‘GUEST’);**

**INSERT INTO MOVIE\_CAST VALUES (304, 1004, ‘HERO’);**

**INSERT INTO RATING VALUES (1001, 4);**

**INSERT INTO RATING VALUES (1002, 2);**

**INSERT INTO RATING VALUES (1003, 5);**

**INSERT INTO RATING VALUES (1004, 4);**

**SELECT \* FROM ACTOR;**

**SELECT \* FROM DIRECTOR;**

**SELECT \* FROM DIRECTOR;**

**SELECT \* FROM MOVIE\_CAST;**

**SELECT \* FROM RATING;**

**QUERIES**

**SELECT MOV\_TITLE**

**FROM MOVIES**

**WHERE DIR\_ID IN (SELECT DIR\_ID**

**FROM DIRECTOR**

**WHERE DIR\_NAME = ‘HITCHCOCK’);**

**SELECT MOV\_TITLE**

**FROM MOVIES M, MOVIE\_CAST MV**

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

**FROM MOVIE\_CAST GROUP BY ACT\_ID**

**HAVING COUNT (ACT\_ID)>1)**

**GROUP BY MOV\_TITLE**

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

**SELECT A.ACT\_NAME, A.ACT\_NAME, C.MOV\_TITLE, C.MOV\_YEAR**

**FROM ACTOR A, MOVIE\_CAST B, MOVIES C**

**WHERE A.ACT\_ID=B.ACT\_ID**

**AND B.MOV\_ID=C.MOV\_ID**

**AND C.MOV\_YEAR NOT BETWEEN 2000 AND 2015;**

**SELECT MOV\_TITLE, MAX (REV\_STARS)**

**FROM MOVIES**

**INNER JOIN RATING USING (MOV\_ID)**

**GROUP BY MOV\_TITLE**

**HAVING MAX (REV\_STARS)>0**

**ORDER BY MOV\_TITLE;**

**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’));SELECT \* FROM RATING;**

1. **COLLEGE DATABASE**

**CREATE TABLE STUDENT (**

**USN VARCHAR (10) PRIMARY KEY,**

**SNAME VARCHAR (25),**

**ADDRESS VARCHAR (25),**

**PHONE BIGINT (10),**

**GENDER CHAR (1));**

**CREATE TABLE SEMSEC (**

**SSID VARCHAR (5) PRIMARY KEY,**

**SEM INT (5),**

**SEC CHAR (1));**

**CREATE TABLE CLASS (**

**USN VARCHAR (10),**

**SSID VARCHAR (5),**

**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 INT,**

**CREDITS INT);**

**CREATE TABLE IAMARKS (**

**USN VARCHAR (10),**

**SUBCODE VARCHAR (8),**

**SSID VARCHAR (5),**

**TEST1 INT (2),**

**TEST2 INT (2),**

**TEST3 INT (2),**

**FINALIA INT (2),**

**PRIMARY KEY (USN, SUBCODE, SSID),**

**FOREIGN KEY (USN) REFERENCES STUDENT (USN),**

**FOREIGN KEY (SUBCODE) REFERENCES SUBJECT (SUBCODE), FOREIGN**

**KEY (SSID) REFERENCES SEMSEC (SSID));**

**INSERT INTO STUDENT VALUES ('1RN13CS020','AKSHAY','BELAGAVI',**

**8877881122,'M');**

**INSERT INTO STUDENT VALUES ('1RN13CS062','SANDHYA','BENGALURU',**

**7722829912,'F');**

**INSERT INTO STUDENT VALUES ('1RN13CS091','TEESHA','BENGALURU',**

**7712312312,'F');**

**INSERT INTO STUDENT VALUES ('1RN13CS066','SUPRIYA','MANGALURU',**

**8877881122,'F');**

**INSERT INTO STUDENTVALUES ('1RN14CS010','ABHAY','BENGALURU',**

**9900211201,'M');**

**INSERT INTO STUDENT VALUES ('1RN14CS032','BHASKAR','BENGALURU',**

**9923211099,'M');**

**INSERT INTO STUDENTVALUES ('1RN14CS025','ASMI','BENGALURU', 7894737377,'F');**

**INSERT INTO STUDENT VALUES ('1RN15CS011','AJAY','TUMKUR', 9845091341,'M');**

**INSERT INTO STUDENT VALUES ('1RN15CS029','CHITRA','DAVANGERE',**

**7696772121,'F');**

**INSERT INTO STUDENT VALUES ('1RN15CS045','JEEVA','BELLARY', 9944850121,'M');**

**INSERT INTO STUDENT VALUES ('1RN15CS091','SANTOSH','MANGALURU',**

**8812332201,'M');**

**INSERT INTO STUDENT VALUES ('1RN16CS045','ISMAIL','KALBURGI',**

**9900232201,'M');**

**INSERT INTO STUDENT VALUES ('1RN16CS088','SAMEERA','SHIMOGA',**

**9905542212,'F');**

**INSERT INTO STUDENT VALUES ('1RN16CS122','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 (‘1RN13CS020’,’CSE8A’);**

**INSERT INTO CLASS VALUES (‘1RN13CS062’,’CSE8A’);**

**INSERT INTO CLASS VALUES (‘1RN13CS066’,’CSE8B’);**

**INSERT INTO CLASS VALUES (‘1RN13CS091’,’CSE8C’);**

**INSERT INTO CLASS VALUES (‘1RN14CS010’,’CSE7A’);**

**INSERT INTO CLASS VALUES (‘1RN14CS025’,’CSE7A’);**

**INSERT INTO CLASS VALUES (‘1RN14CS032’,’CSE7A’);**

**INSERT INTO CLASS VALUES (‘1RN15CS011’,’CSE4A’);**

**INSERT INTO CLASS VALUES (‘1RN15CS029’,’CSE4A’);**

**INSERT INTO CLASS VALUES (‘1RN15CS045’,’CSE4B’);**

**INSERT INTO CLASS VALUES (‘1RN15CS091’,’CSE4C’);**

**INSERT INTO CLASS VALUES (‘1RN16CS045’,’CSE3A’);**

**INSERT INTO CLASS VALUES (‘1RN16CS088’,’CSE3B’);**

**INSERT INTO CLASS VALUES (‘1RN16CS122’,’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 (USN, SUBCODE, SSID, TEST1, TEST2, TEST3) VALUES**

**('1RN13CS091','10CS81','CSE8C', 15, 16, 18);**

**INSERT INTO IAMARKS (USN, SUBCODE, SSID, TEST1, TEST2, TEST3) VALUES**

**('1RN13CS091','10CS82','CSE8C', 12, 19, 14);**

**INSERT INTO IAMARKS (USN, SUBCODE, SSID, TEST1, TEST2, TEST3) VALUES**

**('1RN13CS091','10CS83','CSE8C', 19, 15, 20);**

**INSERT INTO IAMARKS (USN, SUBCODE, SSID, TEST1, TEST2, TEST3) VALUES**

**('1RN13CS091','10CS84','CSE8C', 20, 16, 19);**

**INSERT INTO IAMARKS (USN, SUBCODE, SSID, TEST1, TEST2, TEST3) VALUES**

**('1RN13CS091','10CS85','CSE8C', 15, 15, 12);**

**SELECT \* FROM STUDENT;**

**SELECT \* FROM SEMSEC;**

**SELECT \* FROM CLASS;SELECT \* FROM SUBJECT;**

**SELECT \* FROM IAMARKS;**

**QUERIES**

**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’;**

**SELECT SS.SEM, SS.SEC, S.GENDER, COUNT (S.GENDER) AS COUNT**

**FROM STUDENT S, SEMSEC SS, CLASS C**

**WHERES.USN = C.USN AND**

**SS.SSID = C.SSID**

**GROUP BY SS.SEM, SS.SEC, S.GENDER**

**ORDER BY SEM;**

**CREATE VIEW STU\_TEST1\_MARKS\_VIEW**

**AS**

**SELECT TEST1, SUBCODE**

**FROM IAMARKS**

**WHERE USN = '1RN13CS091';**

**CREATE OR REPLACE PROCEDURE AVGMARKS**

**IS**

**CURSOR C\_IAMARKS IS**

**SELECT GREATEST(TEST1,TEST2) AS A, GREATEST(TEST1,TEST3) AS B,**

**GREATEST(TEST3,TEST2) AS C**

**FROM IAMARKS**

**WHERE FINALIA IS NULL**

**FOR UPDATE;**

**C\_A NUMBER;**

**C\_B NUMBER;**

**C\_C NUMBER;**

**C\_SM NUMBER;**

**C\_AV NUMBER;**

**BEGIN**

**OPEN C\_IAMARKS;**

**LOOP**

**FETCH C\_IAMARKS INTO C\_A, C\_B, C\_C;**

**EXIT WHEN C\_IAMARKS%NOTFOUND;**

**--DBMS\_OUTPUT.PUT\_LINE(C\_A || ' ' || C\_B || ' ' || C\_C);**

**IF (C\_A != C\_B) THEN**

**C\_SM:=C\_A+C\_B;**

**ELSE**

**C\_SM:=C\_A+C\_C;**

**END IF;**

**C\_AV:=C\_SM/2;**

**--DBMS\_OUTPUT.PUT\_LINE('SUM = '||C\_SM);**

**--DBMS\_OUTPUT.PUT\_LINE('AVERAGE = '||C\_AV);**

**UPDATE IAMARKS SET FINALIA=C\_AV WHERE CURRENT OF C\_IAMARKS;**

**END LOOP;**

**CLOSE C\_IAMARKS;**

**END;**

**/**

**SELECT \* FROM IAMARKS;**

**BEGIN**

**AVGMARKS;**

**END;**

**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;**

1. **COMPANY DATABASE**

**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 CHAR (1),**

**SALARY INT (10),**

**SUPERSSN VARCHAR (20),**

**DNO VARCHAR (20),**

**FOREIGN KEY (SUPERSSN) REFERENCES EMPLOYEE (SSN),**

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

**ALTER TABLE DEPARTMENT ADD MGRSSN REFERENCES 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 INT (10) PRIMARY KEY,**

**PNAME VARCHAR (20),**

**PLOCATION VARCHAR (20),**

**DNO VARCHAR (20),**

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

**CREATE TABLE WORKS\_ON (**

**HOURS INT (4),**

**SSN VARCHAR (20),**

**PNO INT (10),**

**PRIMARY KEY (SSN, PNO),**

**FOREIGN KEY (SSN) REFERENCES EMPLOYEE (SSN),**

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

**INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, ADDRESS, SEX, SALARY) VALUES**

**(‘RNSECE01’,’JOHN’,’SCOTT’,’BANGALORE’,’M’, 450000);**

**INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, ADDRESS, SEX, SALARY) VALUES**

**(‘RNSCSE01’,’JAMES’,’SMITH’,’BANGALORE’,’M’, 500000);**

**INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, ADDRESS, SEX, SALARY) VALUES**

**(‘RNSCSE02’,’HEARN’,’BAKER’,’BANGALORE’,’M’, 700000);**

**INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, ADDRESS, SEX, SALARY) VALUES**

**(‘RNSCSE03’,’EDWARD’,’SCOTT’,’MYSORE’,’M’, 500000);**

**INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, ADDRESS, SEX, SALARY) VALUES**

**(‘RNSCSE04’,’PAVAN’,’HEGDE’,’MANGALORE’,’M’, 650000);**

**INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, ADDRESS, SEX, SALARY) VALUES**

**(‘RNSCSE05’,’GIRISH’,’MALYA’,’MYSORE’,’M’, 450000);**

**INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, ADDRESS, SEX, SALARY) VALUES**

**(‘RNSCSE06’,’NEHA’,’SN’,’BANGALORE’,’F’, 800000);**

**INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, ADDRESS, SEX, SALARY) VALUES**

**(‘RNSACC01’,’AHANA’,’K’,’MANGALORE’,’F’, 350000);**

**INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, ADDRESS, SEX, SALARY) VALUES**

**(‘RNSACC02’,’SANTHOSH’,’KUMAR’,’MANGALORE’,’M’, 300000);**

**INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, ADDRESS, SEX, SALARY) VALUES**

**(‘RNSISE01’,’VEENA’,’M’,’MYSORE’,’M’, 600000);**

**INSERT INTO EMPLOYEE (SSN, FNAME, LNAME, ADDRESS, SEX, SALARY) VALUES**

**(‘RNSIT01’,’NAGESH’,’HR’,’BANGALORE’,’M’, 500000);**

**INSERT INTO DEPARTMENT VALUES (‘1’,’ACCOUNTS’,’01-JAN-01’,’RNSACC02’);**

**INSERT INTO DEPARTMENT VALUES (‘2’,’IT’,’01-AUG-16’,’RNSIT01’);**

**INSERT INTO DEPARTMENT VALUES (‘3’,’ECE’,’01-JUN-08’,’RNSECE01’);**

**INSERT INTO DEPARTMENT VALUES (‘4’,’ISE’,’01-AUG-15’,’RNSISE01’);**

**INSERT INTO DEPARTMENT VALUES (‘5’,’CSE’,’01-JUN-02’,’RNSCSE05’);UPDATE EMPLOYEE SET**

**SUPERSSN=NULL, DNO=’3’**

**WHERE SSN=’RNSECE01’;**

**UPDATE EMPLOYEE SET**

**SUPERSSN=’RNSCSE02’, DNO=’5’**

**WHERE SSN=’RNSCSE01’;**

**UPDATE EMPLOYEE SET**

**SUPERSSN=’RNSCSE03’, DNO=’5’**

**WHERE SSN=’RNSCSE02’;**

**UPDATE EMPLOYEE SET**

**SUPERSSN=’RNSCSE04’, DNO=’5’**

**WHERE SSN=’RNSCSE03’;**

**UPDATE EMPLOYEE SET**

**DNO=’5’, SUPERSSN=’RNSCSE05’**

**WHERE SSN=’RNSCSE04’;**

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**UPDATE EMPLOYEE SET**

**DNO=’5’, SUPERSSN=’RNSCSE** **06’**

**WHERE SSN=’RNSCSE05’;**

**UPDATE EMPLOYEE SET**

**DNO=’5’, SUPERSSN=NULL**

**WHERE SSN=’RNSCSE06’;**

**UPDATE EMPLOYEE SET**

**DNO=’1’, SUPERSSN=’RNSACC02’**

**WHERE SSN=’RNSACC01’;**

**UPDATE EMPLOYEE SET**

**DNO=’1’, SUPERSSN=NULL**

**WHERE SSN=’RNSACC02’;**

**UPDATE EMPLOYEE SET**

**DNO=’4’, SUPERSSN=NULL**

**WHERE SSN=’RNSISE01’;**

**UPDATE EMPLOYEE SET**

**DNO=’2’, SUPERSSN=NULL**

**WHERE SSN=’RNSIT01’;**

**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, ‘RNSCSE01’, 100);**

**INSERT INTO WORKS\_ON VALUES (6, ‘RNSCSE01’, 101);**

**INSERT INTO WORKS\_ON VALUES (8, ‘RNSCSE01’, 102);**

**INSERT INTO WORKS\_ON VALUES (10, ‘RNSCSE02’, 100);**

**INSERT INTO WORKS\_ON VALUES (3, ‘RNSCSE04’, 100);**

**INSERT INTO WORKS\_ON VALUES (4, ‘RNSCSE05’, 101);**

**INSERT INTO WORKS\_ON VALUES (5, ‘RNSCSE06’, 102);**

**INSERT INTO WORKS\_ON VALUES (6, ‘RNSCSE03’, 102);**

**INSERT INTO WORKS\_ON VALUES (7, ‘RNSECE01’, 103);**

**INSERT INTO WORKS\_ON VALUES (5, ‘RNSACC01’, 104);**

**INSERT INTO WORKS\_ON VALUES (6, ‘RNSACC02’, 105);**

**INSERT INTO WORKS\_ON VALUES (4, ‘RNSISE01’, 106);**

**INSERT INTO WORKS\_ON VALUES (10, ‘RNSIT01’, 107);**

**SELECT \* FROM EMPLOYEE;**

**SELECT \* FROM DEPARTMENT;**

**SELECT \* FROM DLOCATION;**

**SELECT \* FROM WORKS\_ON;**

**SELECT \* FROM PROJECT;**

**QUERIES**

**(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’);**

**SELECT E.FNAME, E.LNAME, 1.1\*E.SALARY AS INCR\_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.FNAME, E.LNAME**

**FROM EMPLOYEE E**

**WHERE NOT EXISTS((SELECT PNO**

**FROM PROJECT**

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**WHERE DNO=’5’)**

**MINUS (SELECT PNO**

**FROM WORKS\_ON**

**WHERE E.SSN=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;**