

\\to create table

```
CREATE TABLE PUBLISHER
(NAME VARCHAR(20) PRIMARY KEY,
PHONE INTEGER,
ADDRESS VARCHAR(20));
```

```
CREATE TABLE BOOK
(BOOK_ID INTEGER 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 INTEGER,
FOREIGN KEY(BOOK_ID)
REFERENCES BOOK (BOOK_ID) ON DELETE
CASCADE, PRIMARY KEY (BOOK_ID, AUTHOR_NAME));
```

```
CREATE TABLE LIBRARY_BRANCH
(BRANCH_ID INTEGER PRIMARY KEY,
BRANCH_NAME VARCHAR (50),
ADDRESS VARCHAR (50));
```

```
CREATE TABLE BOOK_COPIES
(NO_OF_COPIES INTEGER,
BOOK_ID INTEGER,
BRANCH_ID INTEGER,
FOREIGN KEY(BOOK_ID)
REFERENCES BOOK (BOOK_ID) ON DELETE CASCADE,
FOREIGN KEY (BRANCH_ID)
REFERENCES LIBRARY_BRANCH (BRANCH_ID) ON
DELETE CASCADE,
PRIMARY KEY (BOOK_ID, BRANCH_ID));
```

```
CREATE TABLE CARD_NO(
CARD_NO INTEGER PRIMARY KEY);
```

```
CREATE TABLE BOOK_LENDING1
(DATE_OUT DATE,
DUE_DATE DATE,
CARD_NO INTEGER,
BRANCH_ID INT,
BOOK_ID INTEGER,
PRIMARY KEY (BOOK_ID, BRANCH_ID, CARD_NO),
FOREIGN KEY(BOOK_ID) REFERENCES BOOK (BOOK_ID) ON DELETE CASCADE,
FOREIGN KEY (BRANCH_ID) REFERENCES LIBRARY_BRANCH (BRANCH_ID) ON DELETE CASCADE);
```

\\Insertion of table

```
INSERT INTO PUBLISHER VALUES ('MCGRAW-HILL', 998907658, 'BANGALORE');
INSERT INTO PUBLISHER VALUES ('PEARSON', 988907656, 'NEWDELHI');
INSERT INTO PUBLISHER VALUES ('RANDOM HOUSE', 745679345, 'HYDRABAD');
INSERT INTO PUBLISHER VALUES ('HACHETTE LIVRE', 970862340, 'CHENAI');
INSERT INTO PUBLISHER VALUES ('GRUPO PLANETA', 756120238, '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,'SKIT','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_NO VALUES (101);
INSERT INTO CARD_NO VALUES (102);
INSERT INTO CARD_NO VALUES (103);
INSERT INTO CARD_NO VALUES (104);
```

```
INSERT INTO BOOK_LENDING1 VALUES ('2017-02-15','2017-03-15', 101, 10, 1);
INSERT INTO BOOK_LENDING1 VALUES ('2017-04-25','2017-05-15',101,14, 3);
INSERT INTO BOOK_LENDING1 VALUES ('2017-01-15','2017-02-15', 101, 13, 2);
INSERT INTO BOOK_LENDING1 VALUES ('2017-06-15','2017-07-15', 101, 11, 4);
INSERT INTO BOOK_LENDING1 VALUES ('2017-04-15','2017-05-15', 104, 11, 1);
```

```
SELECT * FROM PUBLISHER;
```

```
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_LENDING1
WHERE DATE_OUT BETWEEN '2017-01-15' AND '2017-06-15'
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;
```

```
CREATE TABLE SALESMAN(
SALESMAN_ID INT PRIMARY KEY,
NAME VARCHAR(255),
CITY VARCHAR(255),
COMMISSION VARCHAR(255)
);

CREATE TABLE COUSTOMER(
CUSTOMER_ID INT PRIMARY KEY,
CUST_NAME VARCHAR(255),
CITY VARCHAR(255),
GRADE INT,
SALESMAN_ID INT,
FOREIGN KEY (SALESMAN_ID) REFERENCES SALESMAN(SALESMAN_ID) ON DELETE CASCADE
);

CREATE TABLE ORDERS(
ORD_NO INT PRIMARY KEY,
PURCHASE_AMT INT,
ORD_DATE DATE,
CUSTOMER_ID INT,
SALESMAN_ID INT,
FOREIGN KEY (CUSTOMER_ID) REFERENCES COUSTOMER(CUSTOMER_ID) ON DELETE CASCADE,
FOREIGN KEY (SALESMAN_ID) REFERENCES SALESMAN(SALESMAN_ID) ON DELETE CASCADE
);

INSERT INTO SALESMAN(SALESMAN_ID,NAME,CITY,COMMISSION)
VALUES
(1,'JHON DOE','BANGALORE','10%'),
(2,'JANE SMITH','MUMBAI','12%'),
(3,'BOB JOHNSON','CHENNAI','8%'),
(4,'ALICE BROWN','BANGALORE','15%'),
(5,'CHARLIE WILSON','MUMBAI','10%');

INSERT INTO COUSTOMER(CUSTOMER_ID,CUST_NAME,CITY,GRADE,SALESMAN_ID)
VALUES
(101,'CUSTOMER1','BANGLORE',5,1),
(102,'CUSTOMER2','MUMBAI',8,2),
(103,'CUSTOMER3','CHENNAI',6,3),
(104,'CUSTOMER4','BANGLORE',7,5),
(105,'CUSTOMERS5','MUMBAI',9,5);

INSERT INTO ORDERS(ORD_NO,PURCHASE_AMT,ORD_DATE,CUSTOMER_ID,SALESMAN_ID)
VALUES
(1001,500,'2023-01-01',101,1),
(1002,700,'2023-01-02',102,2),
(1003,300,'2023-01-03',103,3),
(1004,1000,'2023-01-01',104,4),
(1005,600,'2023-01-02',105,5);

\\ QUERIES

SELECT GRADE,COUNT(DISTINCT CUSTOMER_ID)
FROM COUSTOMER
GROUP BY GRADE
HAVING GRADE>(SELECT AVG(GRADE)
FROM COUSTOMER
WHERE CITY ='BANGLORE');

SELECT SALESMAN_ID ,NAME
FROM SALESMAN A
WHERE 1<(
SELECT COUNT(*)
FROM COUSTOMER
WHERE SALESMAN_ID =A.SALESMAN_ID
);
```

```
SELECT SALESMAN.SALESMAN_ID,NAME,CUST_NAME,
COMMISSION FROM SALESMAN , COUSTOMER
WHERE SALESMAN.CITY=COUSTOMER.CITY UNION
SELECT SALESMAN_ID,NAME, 'NO MATCH',
COMMISSION FROM SALESMAN
WHERE NOT CITY =
ANY (SELECT CITY
FROM COUSTOMER)
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);
```

```
SELECT* FROM ELITSALESMAN;
```

```
DELETE FROM SALESMAN WHERE SALESMAN_ID=5;
```

```
SELECT*FROM SALESMAN;
```

```
CREATE TABLE ACTOR
(
  ACT_ID INT (3),
  ACT_NAME VARCHAR (20),
  ACT_GENDER CHAR (1),
  PRIMARY KEY (ACT_ID));

CREATE TABLE DIRECTOR
(
  DIR_ID INT (3),
  DIR_NAME VARCHAR (20),
  DIR_PHONE INT (10),
  PRIMARY KEY (DIR_ID));

CREATE TABLE MOVIES
(
  MOV_ID INT (4),
  MOV_TITLE VARCHAR (25),
  MOV_YEAR VARCHAR (4),
  MOV_LANG VARCHAR (12),
  DIR_ID INT (3),
  PRIMARY KEY (MOV_ID),
  FOREIGN KEY (DIR_ID) REFERENCES DIRECTOR (DIR_ID));

CREATE TABLE MOVIE_CAST
(
  ACT_ID INT (3),
  MOV_ID INT (4),
  ROLE VARCHAR (10),
  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 (4),
  REV_STARS VARCHAR (25),
  PRIMARY KEY (MOV_ID),
  FOREIGN KEY (MOV_ID) REFERENCES MOVIES (MOV_ID));

//INSERTIONSELECT 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;

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', 875161101);
INSERT INTO DIRECTOR VALUES (61,'HITCHCOCK', 776613891);
INSERT INTO DIRECTOR VALUES (62,'FARAN', 998677651);
INSERT INTO DIRECTOR VALUES (63,'STEVEN SPIELBERG', 898976530);

INSERT INTO MOVIES VALUES (1001,'BAHUBALI-2', 2017, 'TELUGU', 60);
INSERT INTO MOVIES VALUES (1002,'BAHUBALI-1', 2015, 'TELUGU', 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;
```

```
//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 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'));
```

//Creation of table

```
CREATE TABLE STUDENT (  
  USN VARCHAR (10) PRIMARY KEY,  
  SNAME VARCHAR (25),  
  ADDRESS VARCHAR (25),  
  PHONE INT (10),  
  GENDER CHAR (1));
```

```
CREATE TABLE SEMSEC (  
  SSID VARCHAR (5) PRIMARY KEY,  
  SEM INT (2),  
  SEC CHAR (1));
```

```
CREATE TABLE CLASS (  
  USN VARCHAR (10),  
  SSID VARCHAR (5),  
  PRIMARY KEY (USN, SSID),  
  FOREIGN KEY (USN) REFERENCES STUDENT (USN));
```

```
CREATE TABLE SUBJECT (  
  SUBCODE VARCHAR (8),  
  TITLE VARCHAR (20),  
  SEM INT (2),  
  CREDITS INT (2),  
  PRIMARY KEY (SUBCODE));
```

```
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));
```

// Insertion

```
INSERT INTO STUDENT VALUES ('1RN13CS020', 'AKSHAY', 'BELAGAVI', 887788112, 'M');  
INSERT INTO STUDENT VALUES ('1RN13CS062', 'SANDHYA', 'BENGALURU', 772282992, 'F');  
INSERT INTO STUDENT VALUES ('1RN13CS091', 'TEESHA', 'BENGALURU', 771231212, 'F');  
INSERT INTO STUDENT VALUES ('1RN13CS066', 'SUPRIYA', 'MANGALURU', 887781122, 'F');  
INSERT INTO STUDENTVALUES ('1RN14CS010', 'ABHAY', 'BENGALURU', 990021201, 'M');  
INSERT INTO STUDENT VALUES ('1RN14CS032', 'BHASKAR', 'BENGALURU', 993211099, 'M');  
INSERT INTO STUDENTVALUES ('1RN14CS025', 'ASMI', 'BENGALURU', 789437377, 'F');  
INSERT INTO STUDENT VALUES ('1RN15CS011', 'AJAY', 'TUMKUR', 984509341, 'M');  
INSERT INTO STUDENT VALUES ('1RN15CS029', 'CHITRA', 'DAVANGERE', 769672121, 'F');  
INSERT INTO STUDENT VALUES ('1RN15CS045', 'JEEVA', 'BELLARY', 994485021, 'M');  
INSERT INTO STUDENT VALUES ('1RN15CS091', 'SANTOSH', 'MANGALURU', 882332201, 'M');  
INSERT INTO STUDENT VALUES ('1RN16CS045', 'ISMAIL', 'KALBURGI', 990032201, 'M');  
INSERT INTO STUDENT VALUES ('1RN16CS088', 'SAMEERA', 'SHIMOGA', 990542212, 'F');  
INSERT INTO STUDENT VALUES ('1RN16CS122', 'VINAYAKA', 'CHIKAMAGALUR', 880880011, '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', 'DWD', 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);

```

```
// Query
```

```

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 WHERE S.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;
```