Lab 10 :-

CREATE TABLE STUDENT(

USN VARCHAR (10) PRIMARY KEY,

SNAME VARCHAR (25),

ADDRESS VARCHAR (25),

PHONE INT,

GENDER VARCHAR(1));

CREATE TABLE SEMSEC(

SSID VARCHAR(5) PRIMARY KEY,

SEM INT,

SEC VARCHAR(1));

CREATE TABLE CLASS(

USN VARCHAR (10),

SSID VARCHAR (10),

PRIMARY KEY (USN, SSID),

FOREIGN KEY (USN) REFERENCES STUDENT (USN)

ON DELETE CASCADE ON UPDATE CASCADE,

FOREIGN KEY (SSID) REFERENCES SEMSEC (SSID)

ON DELETE CASCADE ON UPDATE CASCADE);

CREATE TABLE SUBJECT(

SUBCODE INT,

TITLE INT,

SEM INT,

CREDITS INT,

PRIMARY KEY (SUBCODE));

CREATE TABLE IAMARKS(

```sql
USN VARCHAR (10),

SUBCODE VARCHAR (8),

SSID VARCHAR (5),

TEST1 INT,

TEST2 INT,

TEST3 INT,

FINALIA INT,

PRIMARY KEY (USN, SUBCODE, SSID),

FOREIGN KEY (USN) REFERENCES STUDENT (USN)

ON DELETE CASCADE ON UPDATE CASCADE,

FOREIGN KEY (SUBCODE) REFERENCES SUBJECT (SUBCODE)

ON DELETE CASCADE ON UPDATE CASCADE,

FOREIGN KEY (SSID) REFERENCES SEMSEC (SSID)

ON DELETE CASCADE ON UPDATE CASCADE);



INSERT INTO STUDENT VALUES ('1RN14CS025','ASMI','BENGALURU', 7894737377,'F'),

('1RN15CS011','AJAY','TUMKUR', 9845091341,'M'),

('1RN15CS029','CHITRA','DAVANGERE', 7696772121,'F'),

('1RN15CS045','JEEVA','BELLARY', 9944850121,'M'),

('1RN15CS091','SANTOSH','MANGALURU',8812332201,'M'),

('1RN16CS045','ISMAIL','KALBURGI', 9900232201,'M'),

('1RN16CS088','SAMEERA','SHIMOGA', 9905542212,'F'),

('1RN16CS122','VINAYAKA','CHIKAMAGALUR',8800880011,'M');


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 CLASS VALUES ('1RN14CS025','CSE5B');

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 ('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 ('15CS41','M4', 4, 4);

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

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

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

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

INSERT INTO IAMARKS VALUES ('1RN15CS091','15CS41','CSE4C', 15, 16, 18, 34);

INSERT INTO IAMARKS VALUES ('1RN15CS091','15CS42','CSE4C', 12, 19, 14, 33);

INSERT INTO IAMARKS VALUES ('1RN15CS091','15CS43','CSE4C', 19, 15, 20, 39);

INSERT INTO IAMARKS VALUES ('1RN16CS122','15CS31','CSE3C', 20, 16, 19, 39);

INSERT INTO IAMARKS VALUES ('1RN16CS122','15CS32','CSE3C', 15, 15, 12, 30);

SELECT * FROM STUDENT;

```
1RN14CS025|ASMI|BENGALURU|7894737377|F
1RN15CS011|AJAY|TUMKUR|9845091341|M
1RN15CS029|CHITRA|DAVANGERE|7696772121|F
1RN15CS045|JEEVA|BELLARY|9944850121|M
1RN15CS091|SANTOSH|MANGALURU|8812332201|M
1RN16CS045|ISMAIL|KALBURGI|9900232201|M
1RN16CS088|SAMEERA|SHIMOGA|9905542212|F
1RN16CS122|VINAYAKA|CHIKAMAGALUR|8800880011|M


[Program exited with exit code 0]
```


SELECT * FROM SEMSEC;

```
CSE5A|5|A
CSE5B|5|B
CSE5C|5|C
CSE4A|4|A
CSE4B|4|B
CSE4C|4|C
CSE3A|3|A
CSE3B|3|B
CSE3C|3|C
CSE2A|2|A
CSE2B|2|B
CSE2C|2|C


[Program exited with exit code 0]
```

SELECT * FROM CLASS;

```
1RN14CS025|CSE5B
1RN15CS011|CSE4A
1RN15CS029|CSE4A
1RN15CS045|CSE4B
1RN15CS091|CSE4C
1RN16CS045|CSE3A
1RN16CS088|CSE3B
1RN16CS122|CSE3C


[Program exited with exit code 0]
```

SELECT * FROM SUBJECT;

```
15CS51|ME|5|4
15CS52|CN|5|4
15CS53|DBMS|5|4
15CS54|ATC|5|4
15CS41|M4|4|4
15CS42|SE|4|4
15CS43|DAA|4|4
15CS31|M3|3|4
15CS32|ADE|3|4

[Program exited with exit code 0]
```

SELECT * FROM IAMARKS;

```
1RN15CS091|15CS41|CSE4C|15|16|18|34
1RN15CS091|15CS42|CSE4C|12|19|14|33
1RN15CS091|15CS43|CSE4C|19|15|20|39
1RN16CS122|15CS31|CSE3C|20|16|19|39
1RN16CS122|15CS32|CSE3C|15|15|12|30

[Program exited with exit code 0]
```

i.List all the student details studying in fourth semester 'C' section.

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';

```
1RN15CS091|SANTOSH|MANGALURU|8812332201|M|4|C

[Program exited with exit code 0]
```

ii. Compute the total number of male and female students in each semester and in each section.

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|A|M|1
3|B|F|1
3|C|M|1
4|A|F|1
4|A|M|1
4|B|M|1
4|C|M|1
5|B|F|1

[Program exited with exit code 0]
```

iii. Create a view of Test1 marks of student USN '1BI15CS101' in all subjects.

CREATE VIEW STU_TEST1_MARKS_VIEW AS

SELECT TEST1, SUBCODE FROM IAMARKS

WHERE USN = '1RN15CS091';

SELECT * FROM STU_TEST1_MARKS_VIEW;

```
15|15CS41
12|15CS42
19|15CS43

[Program exited with exit code 0]
```