

#### PROGRAM 4

List all the student details studying in fourth semester \_C' section.

```
SELECT *  
  
FROM STUDENT  
  
WHERE USN IN (SELECT USN FROM CLASS WHERE SSID IN (SELECT SSID FROM SEMSEC WHERE Sem =  
4 AND Sec = 'C'));
```

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

```
SELECT Sem, Sec, Gender, COUNT(*) as StudentCount  
  
FROM STUDENT  
  
JOIN CLASS ON STUDENT.USN = CLASS.USN  
  
JOIN SEMSEC ON CLASS.SSID = SEMSEC.SSID  
  
GROUP BY Sem, Sec, Gender;
```

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

```
CREATE VIEW Test1View AS  
  
SELECT Subcode, Test1  
  
FROM IAMARKS  
  
WHERE USN = '1KT20CS101';
```

Calculate the FinalIA (average of the best two test marks) and update the corresponding table for all students:

```
UPDATE IAMARKS  
  
SET FinalIA = (Test1 + Test2 + Test3 - LEAST(Test1, Test2, Test3)) / 2;
```

Categorize students based on the FinalIA and provide details only for 8th semester A, B, and C section students:

```
SELECT USN, Sem, Sec,  
  
CASE  
  
    WHEN FinalIA BETWEEN 17 AND 20 THEN 'Outstanding'  
  
    WHEN FinalIA BETWEEN 12 AND 16 THEN 'Average'
```

```
        WHEN FinalIA < 12 THEN 'Weak'
    END AS CAT
FROM IAMARKS
JOIN CLASS ON IAMARKS.USN = CLASS.USN
JOIN SEMSEC ON CLASS.SSID = SEMSEC.SSID
WHERE Sem = 8 AND Sec IN ('A', 'B', 'C');
```