

LAB- 10 (program)

PROGRAM 10:- COLLEGE DATABASE

Consider the schema for College Database:

STUDENT(USN, SName, Address, Phone, Gender)

SEMSEC(SSID, Sem, Sec)

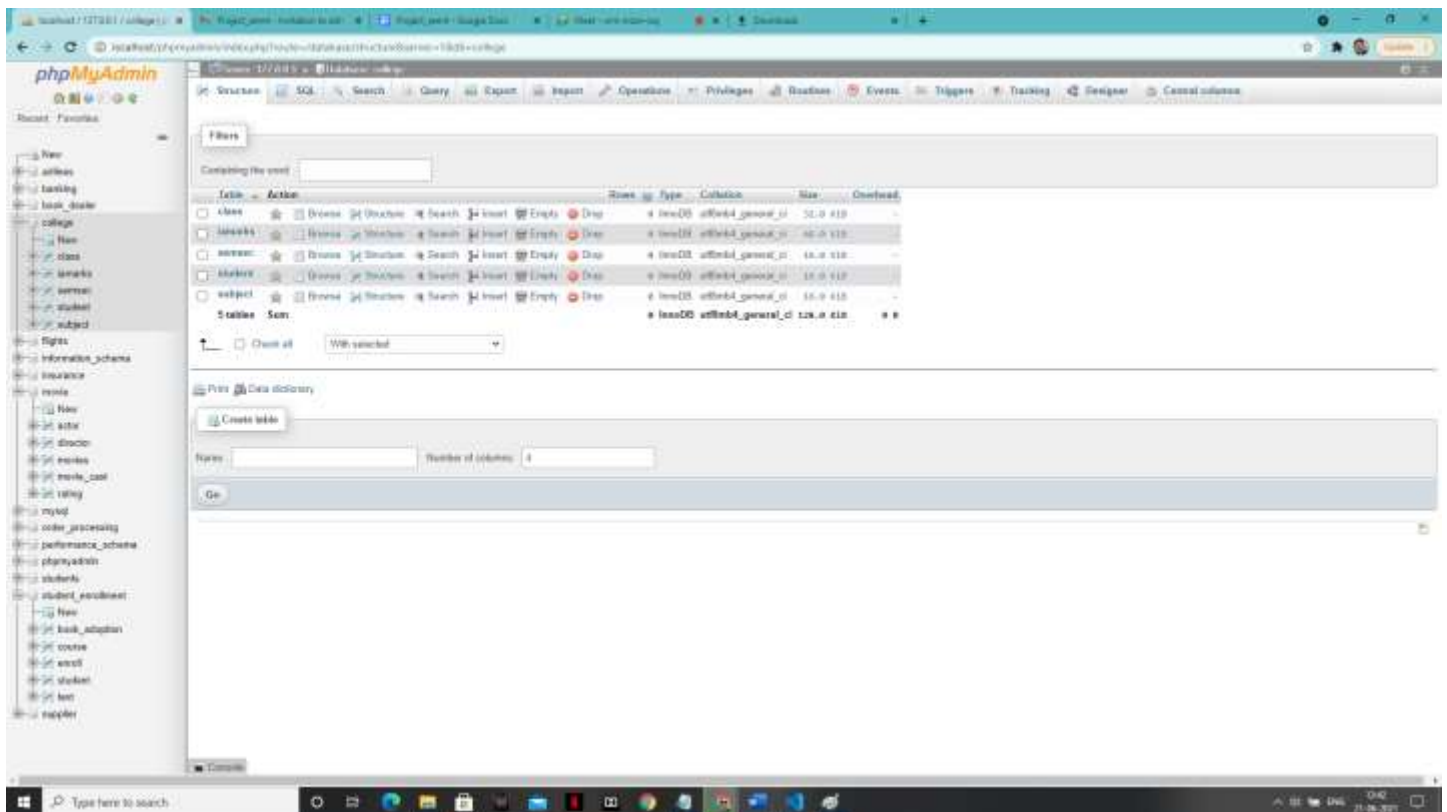
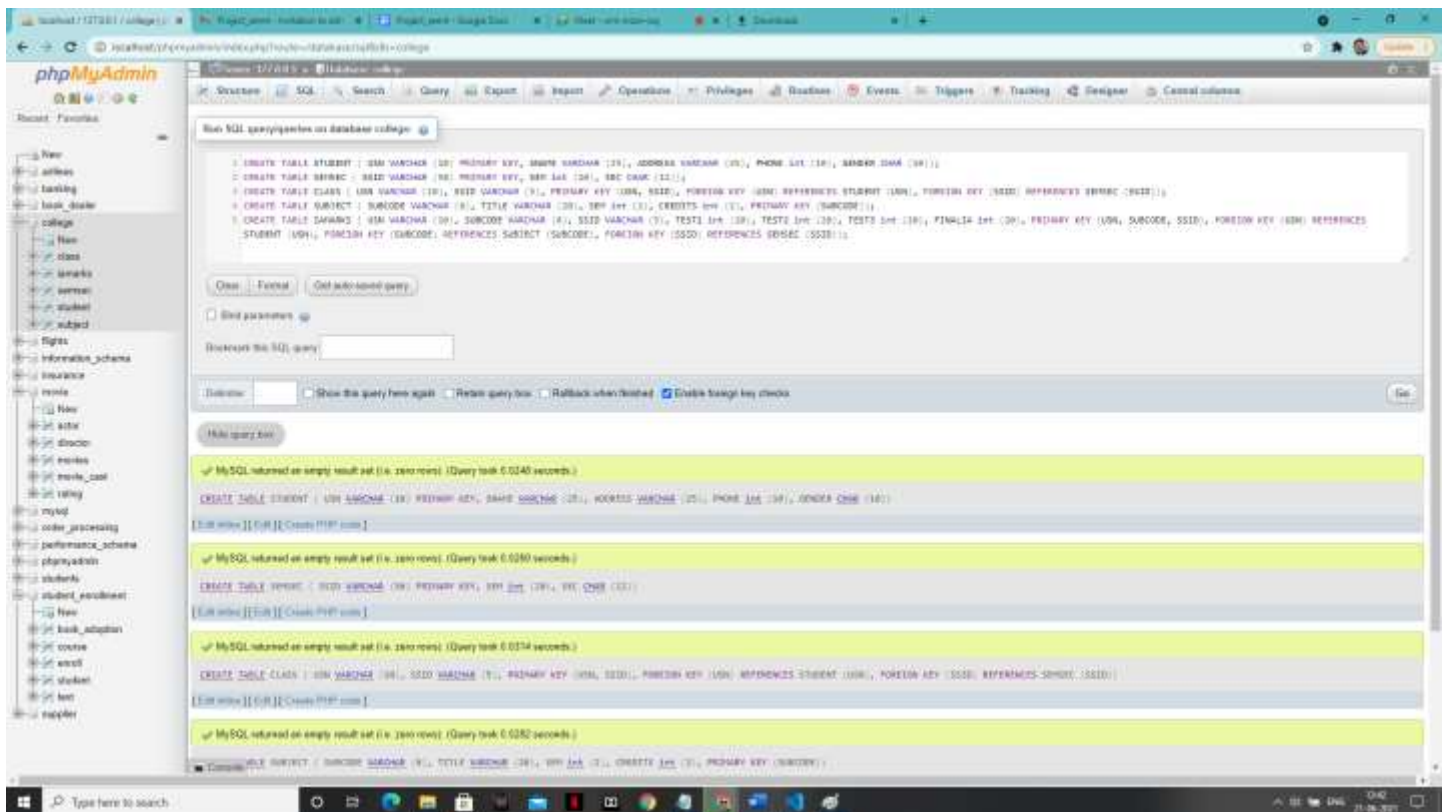
CLASS(USN, SSID)

SUBJECT(Subcode, Title, Sem, Credits)

MARKS(USN, Subcode, SSID, Test1, Test2, Test3, FinalIA)

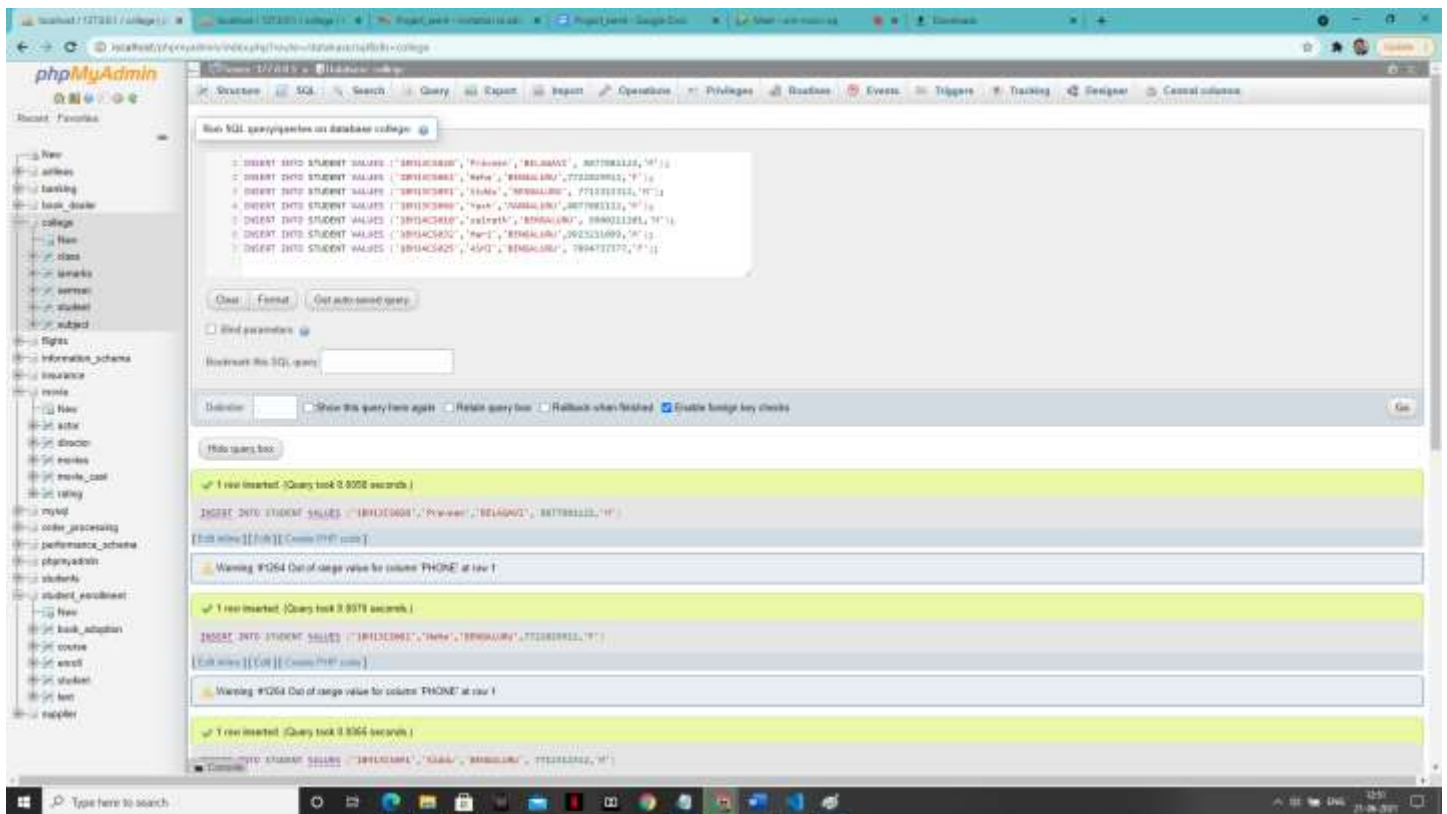
- i. List all the student details studying in fourth semester 'C' section.**
- ii. Compute the total number of male and female students in each semester and in each section.**
- iii. Create a view of Test1 marks of student USN '22' in all subjects.**
- iv. Calculate the FinalIA (average of best two test marks) and update the corresponding table for all students.**
- v. Categorize students based on the following criterion: If FinalIA = 17 to 20 then CAT = 'Outstanding' If FinalIA = 12 to 16 then CAT = 'Average' If FinalIA < 12 then CAT = 'Weak' Give these details only for 8th semester A, B, and C section students.**

Create table:-

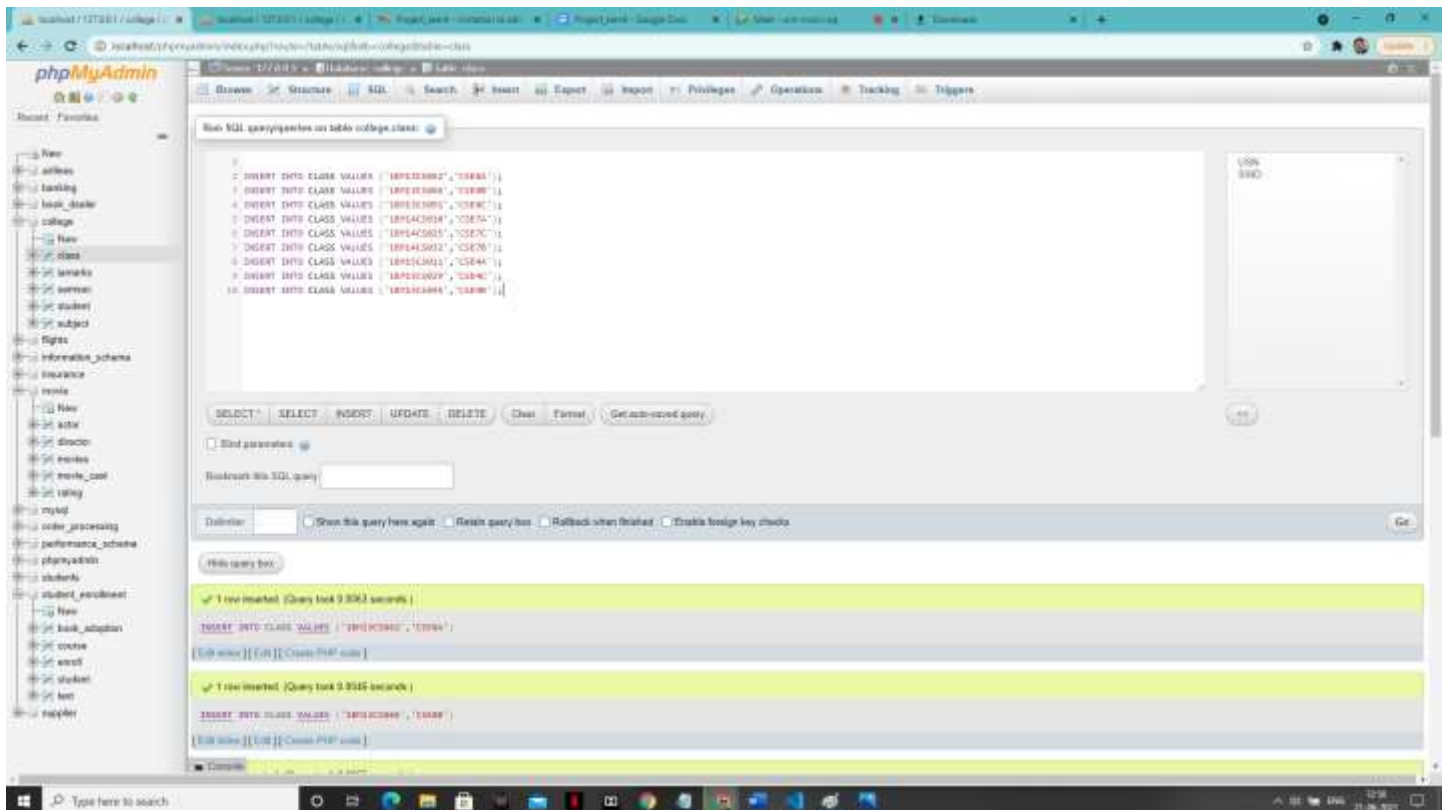


2) Enter tuples for each relation.

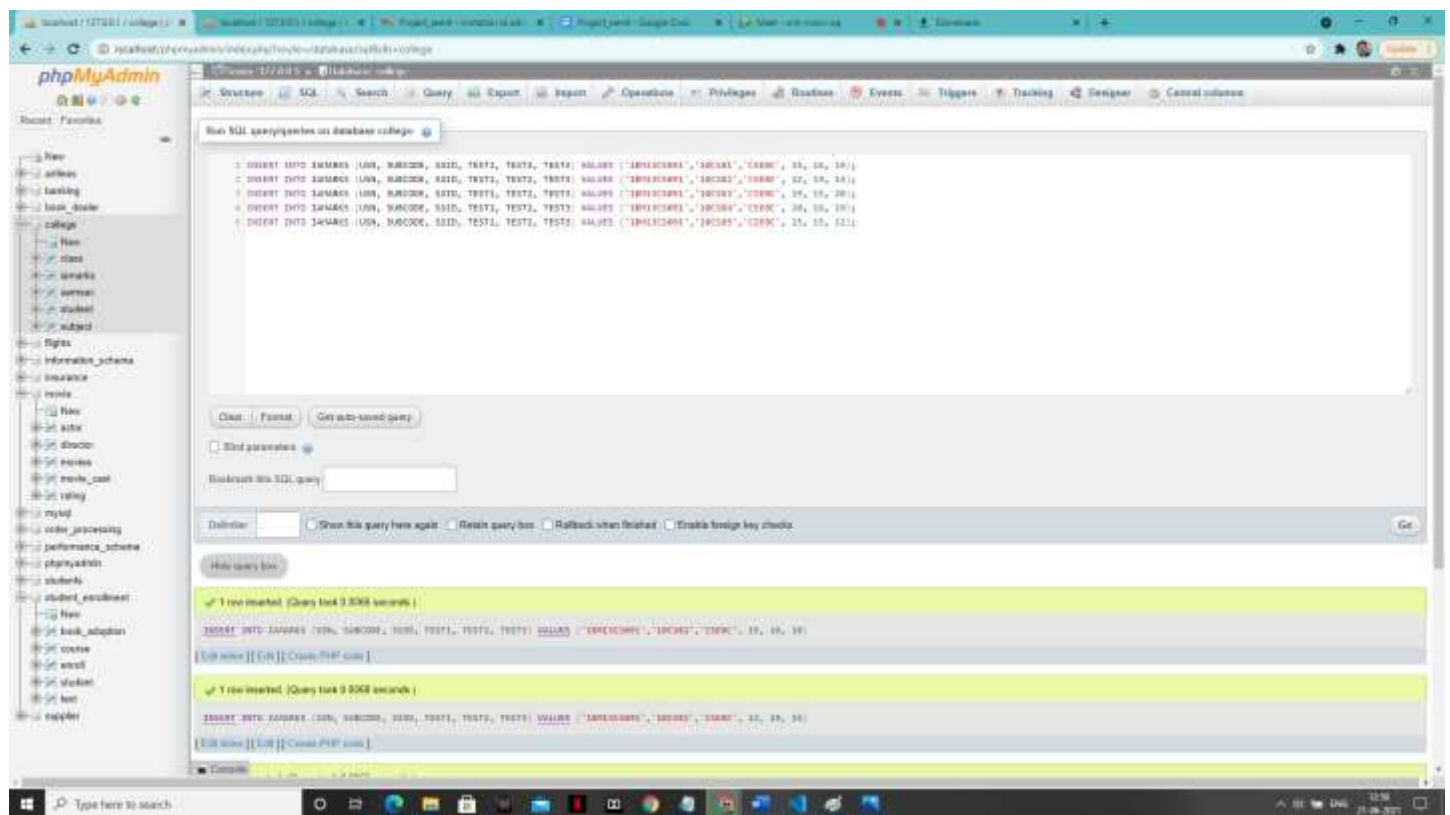
'STUDENT' table:



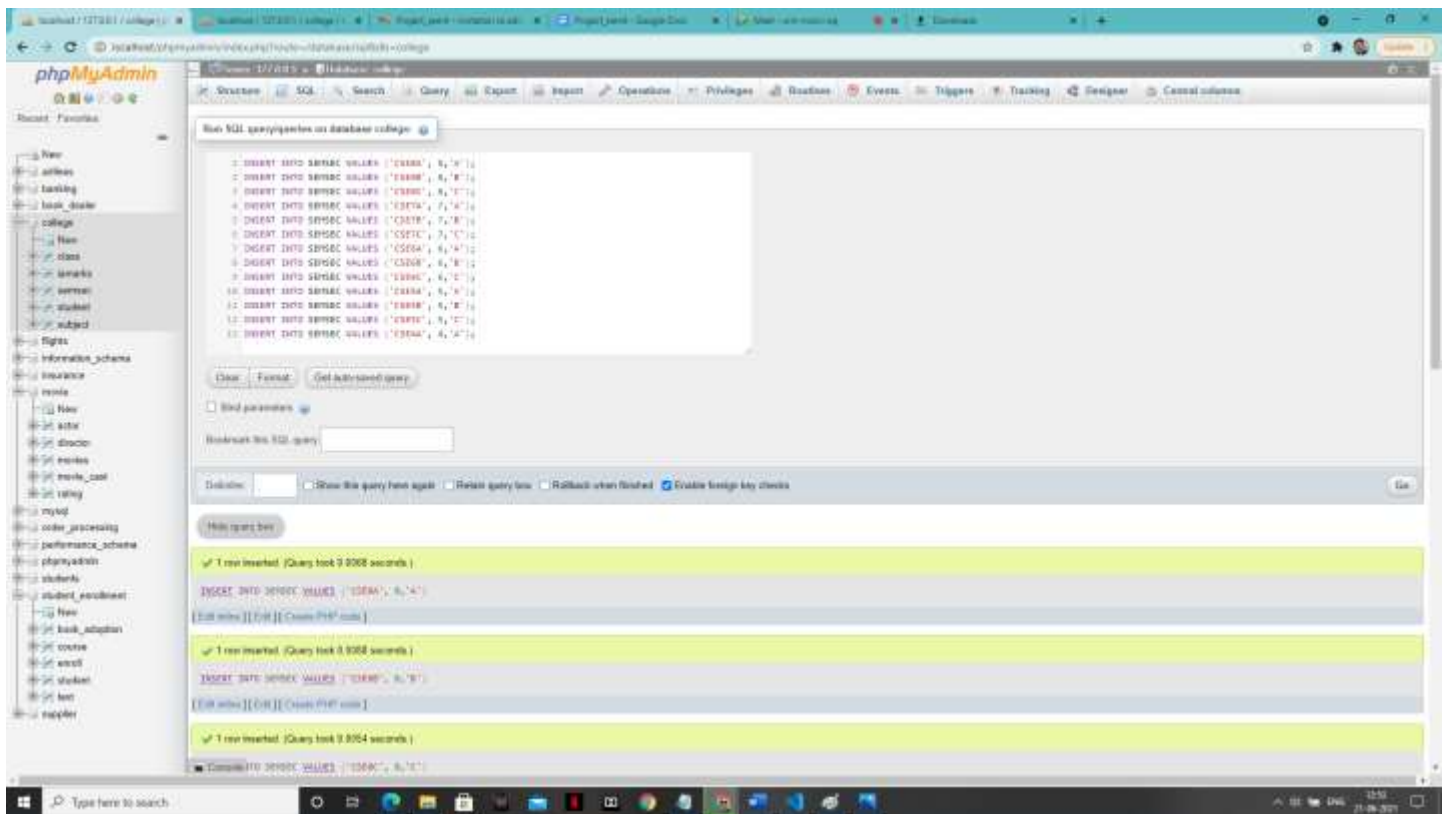
'Class' table:



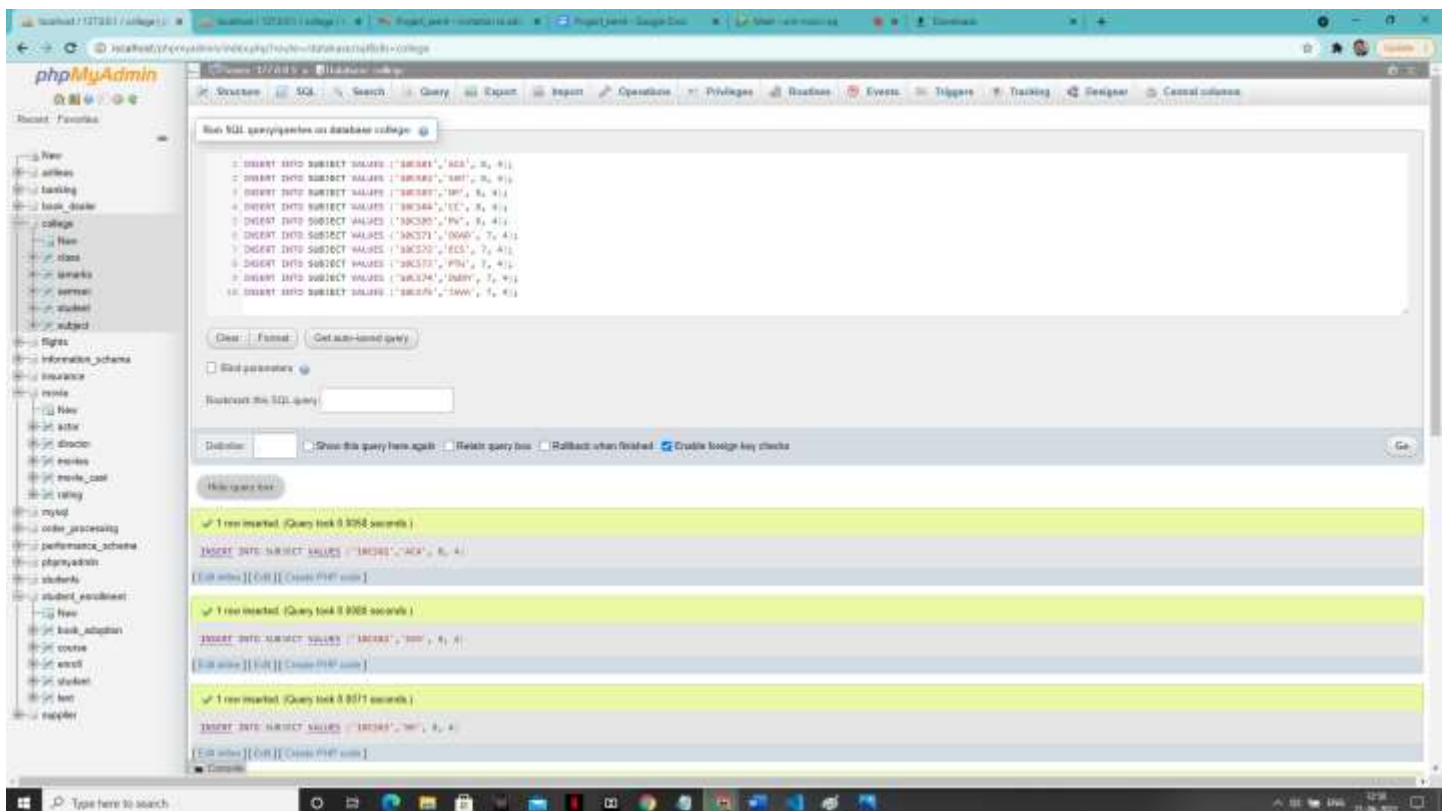
'Marks' table:



'semsec' value: -

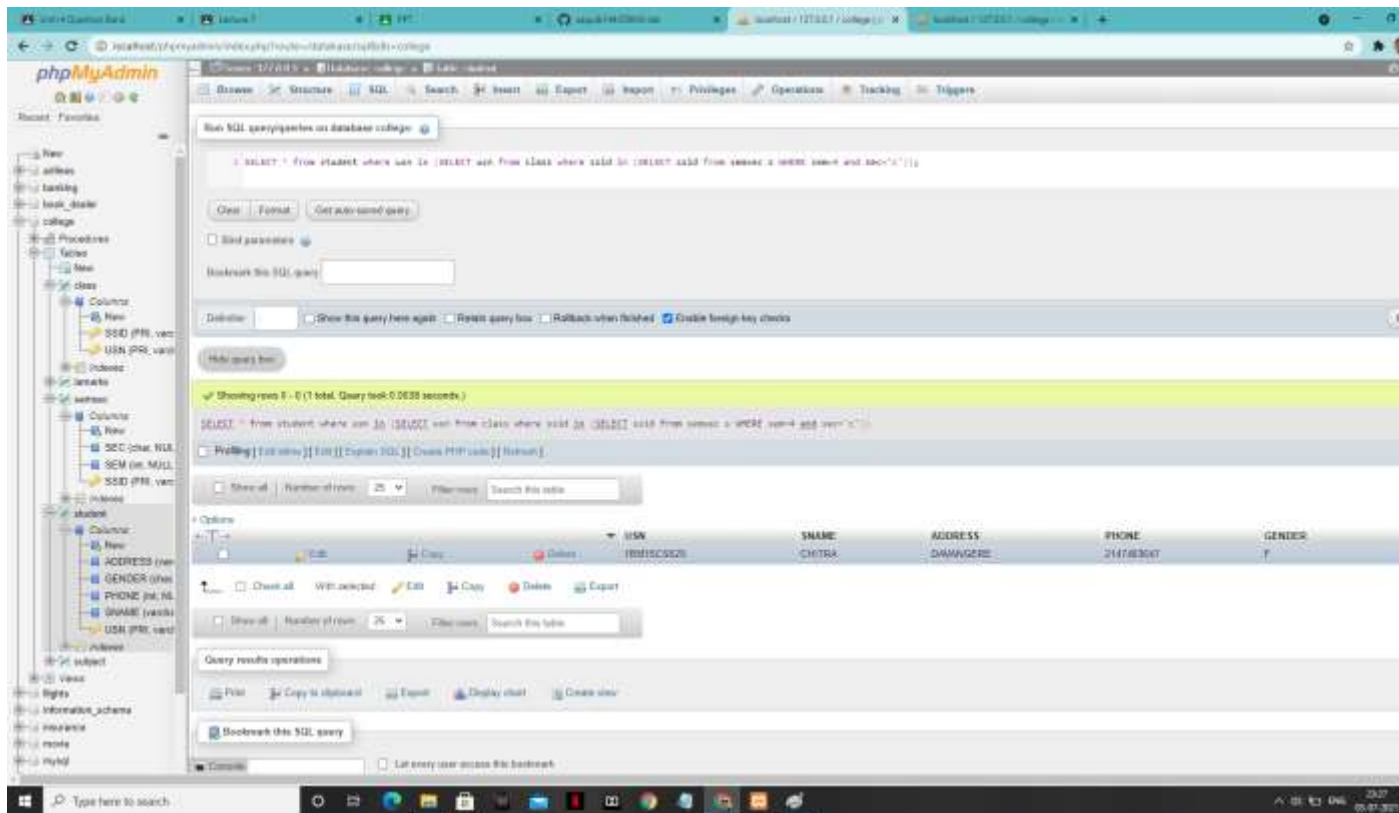


‘subject’ table:



SOLUTION

1:-



2:-

Run SQL query/queries on database college:

```

SELECT SS.IDPG, SS.SEC, S.NAMEIN, COUNT(S.IDPG) AS COUNT
FROM STUDENT S, SEMSEC SS, CLASS C
WHERE S.IDPG = C.IDPG AND
SS.IDPG = C.IDPG
GROUP BY SS.IDPG, SS.SEC, S.IDPGIN
ORDER BY IDPG

```

Showing rows 0 - 5 (8 total. Query took 0.0072 seconds)

```

SELECT SS.IDPG, SS.SEC, S.IDPGIN, COUNT(S.IDPGIN) AS COUNT FROM STUDENT S, SEMSEC SS, CLASS C WHERE S.IDPG = C.IDPG AND SS.IDPG = C.IDPG GROUP BY SS.IDPG, SS.SEC, S.IDPGIN ORDER BY IDPG

```

| SS.IDPG | SS.SEC | S.IDPGIN | COUNT |
|---------|--------|----------|-------|
| 7 | A | M | 1 |
| 7 | B | M | 1 |
| 7 | C | F | 1 |
| 8 | A | F | 1 |
| 1 | B | M | 1 |
| 3 | C | M | 1 |

3:-

Run SQL query/queries on database college:

```

CREATE VIEW STUDENT_TEST1_NAME_V AS SELECT TEST1, SUBCODE FROM SEMSEC WHERE USE = 'SEMSECUSE'
SELECT * FROM STUDENT_TEST1_NAME_V

```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0076 seconds)

```

CREATE VIEW STUDENT_TEST1_NAME_V AS SELECT TEST1, SUBCODE FROM SEMSEC WHERE USE = 'SEMSECUSE'
SELECT * FROM STUDENT_TEST1_NAME_V

```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0076 seconds)

```

SELECT * FROM STUDENT_TEST1_NAME_V

```

| TEST1 | SUBCODE |
|-------|---------|
|-------|---------|

The screenshot shows the phpMyAdmin interface with the 'college' database selected. The SQL tab is active, displaying three queries: 1. ALTER TABLE Sawaris ADD COLUMN FINAL_ALL FLOAT; 2. UPDATE Sawaris SET FINAL_ALL=(TESTS+TEST2+TEST3+LAST+TEST4+TEST5+TEST6); 3. SELECT * FROM Sawaris; The 'Execute' button is clicked, and the results are displayed in a table format. The table has columns: USN, SUBCODE, SSI, TEST1, TEST2, TEST3, TEST4, TEST5, TEST6, and FINAL_ALL. The results show two rows of data for USN 18M1SC5891 and 18M1SC5892.

| USN | SUBCODE | SSI | TEST1 | TEST2 | TEST3 | TEST4 | TEST5 | TEST6 | FINAL_ALL |
|------------|---------|-------|-------|-------|-------|-------|-------|-------|-----------|
| 18M1SC5891 | SC5891 | CS680 | 15 | 16 | 10 | 17 | | | 17 |
| 18M1SC5892 | SC5892 | CS680 | 12 | 10 | 14 | 15.5 | | | 15.5 |

5:-

