PROGRAM 10:COLLEGE DATABASE

Consider the schema for College Database:

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

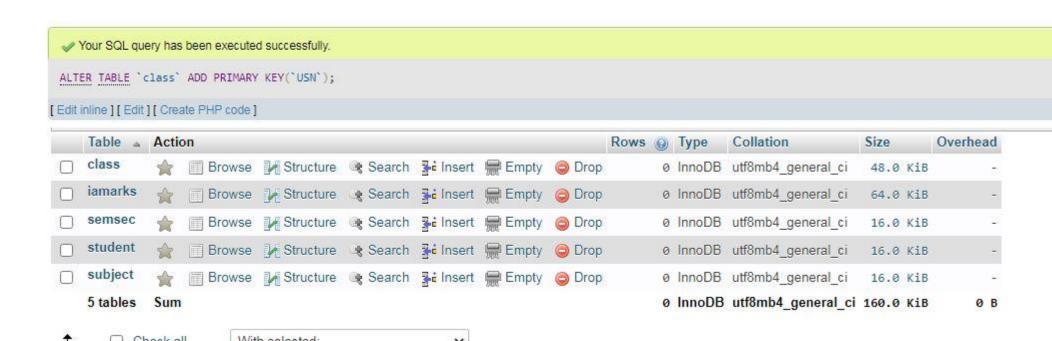
SEMSEC(SSID, Sem, Sec)

CLASS(USN, SSID)

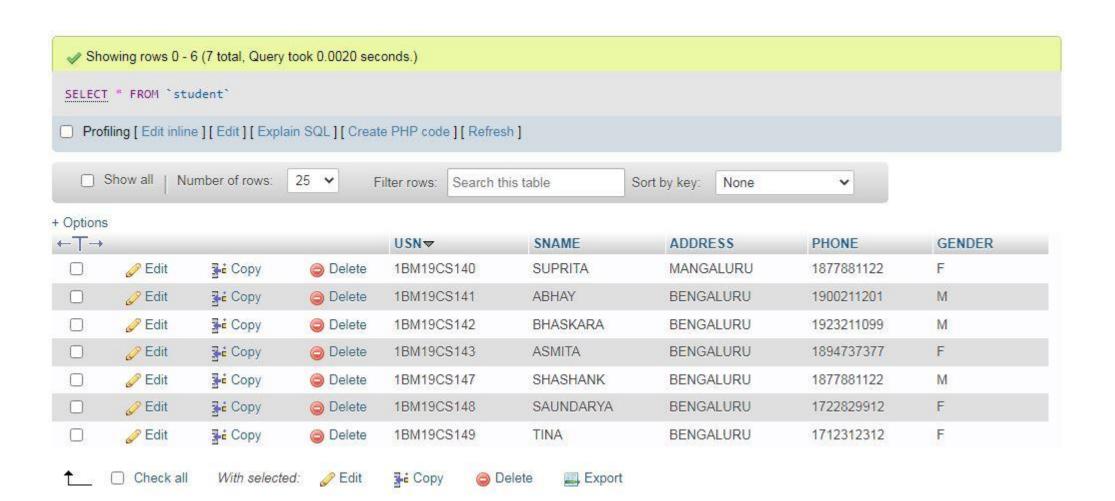
SUBJECT(Subcode, Title, Sem, Credits)

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

```
MySQL returned an empty result set (i.e. zero rows). (Query took 0.1704 seconds.)
 CREATE TABLE STUDENT ( USN VARCHAR (10) PRIMARY KEY, SNAME VARCHAR (25), ADDRESS VARCHAR (25), PHONE INT (11), GENDER CHAR (1))
[Edit inline][Edit][Create PHP code]
 MySQL returned an empty result set (i.e. zero rows). (Query took 0.2136 seconds.)
 CREATE TABLE SEMSEC ( SSID VARCHAR (5) PRIMARY KEY, SEM INT (1), SEC CHAR (1))
[Edit inline][Edit][Create PHP code]
 MySQL returned an empty result set (i.e. zero rows). (Query took 0.4516 seconds.)
 CREATE TABLE CLASS ( USN VARCHAR (10), SSID VARCHAR (5), FOREIGN KEY (USN) REFERENCES STUDENT (USN), FOREIGN KEY (SSID) REFERENCES SEMSEC
 (SSID))
[Edit inline][Edit][Create PHP code]
 MySQL returned an empty result set (i.e. zero rows). (Query took 0.1810 seconds.)
 CREATE TABLE SUBJECT ( SUBCODE VARCHAR (8) PRIMARY KEY, TITLE VARCHAR (20), SEM INT(1), CREDITS INT (1)
[ Edit inline ] [ Edit ] [ Create PHP code ]
 MySQL returned an empty result set (i.e. zero rows). (Query took 0.1800 seconds.)
 CREATE TABLE IAMARKS ( USN VARCHAR (10), SUBCODE VARCHAR (8), SSID VARCHAR (5), TEST1 INT , TEST2 INT , TEST3 INT , FINALIA INT , FOREIGN
 KEY (USN) REFERENCES STUDENT (USN)ON UPDATE CASCADE ON DELETE CASCADE, FOREIGN KEY (SUBCODE) REFERENCES SUBJECT (SUBCODE)ON UPDATE CASCADE
 ON DELETE CASCADE, FOREIGN KEY (SSID) REFERENCES SEMSEC (SSID)ON UPDATE CASCADE ON DELETE CASCADE)
[ Edit inline ] [ Edit ] [ Create PHP code ]
```



```
1 row inserted. (Query took 0.0306 seconds.)
 INSERT INTO STUDENT VALUES ('18M19CS147', 'SHASHANK', 'BENGALURU', 1877881122, 'M')
[ Edit inline ] [ Edit ] [ Create PHP code ]
  1 row inserted. (Query took 0.0316 seconds.)
 INSERT INTO STUDENT VALUES ('18M19CS148', 'SAUNDARYA', 'BENGALURU', 1722829912, 'F')
[ Edit inline ] [ Edit ] [ Create PHP code ]
  1 row inserted. (Query took 0.0468 seconds.)
 INSERT INTO STUDENT VALUES ('18M19CS149', 'TINA', 'BENGALURU', 1712312312, 'F')
[ Edit inline ] [ Edit ] [ Create PHP code ]
  1 row inserted. (Query took 0.0512 seconds.)
 INSERT INTO STUDENT VALUES ('18M19CS140', 'SUPRITA', 'MANGALURU', 1877881122, 'F')
[ Edit inline ] [ Edit ] [ Create PHP code ]
  1 row inserted. (Query took 0.0322 seconds.)
 INSERT INTO STUDENT VALUES ('18M19CS141', 'ABHAY', 'BENGALURU', 1900211201, 'M')
[ Edit inline ] [ Edit ] [ Create PHP code ]
  1 row inserted. (Query took 0.0310 seconds.)
 INSERT INTO STUDENT VALUES ('18M19CS142', 'BHASKARA', 'BENGALURU', 1923211099, 'M')
[ Edit inline ] [ Edit ] [ Create PHP code ]
  1 row inserted. (Query took 0.0312 seconds.)
 INSERT INTO STUDENT VALUES ('18M19CS143','ASMITA','BENGALURU', 1894737377,'F')
[ Edit inline ] [ Edit ] [ Create PHP code ]
```



```
√ 1 row inserted. (Query took 0.0690 seconds.)

 INSERT INTO SEMSEC VALUES ('CSE8A', 8, 'A')
[ Edit inline ] [ Edit ] [ Create PHP code ]

√ 1 row inserted. (Query took 0.1488 seconds.)

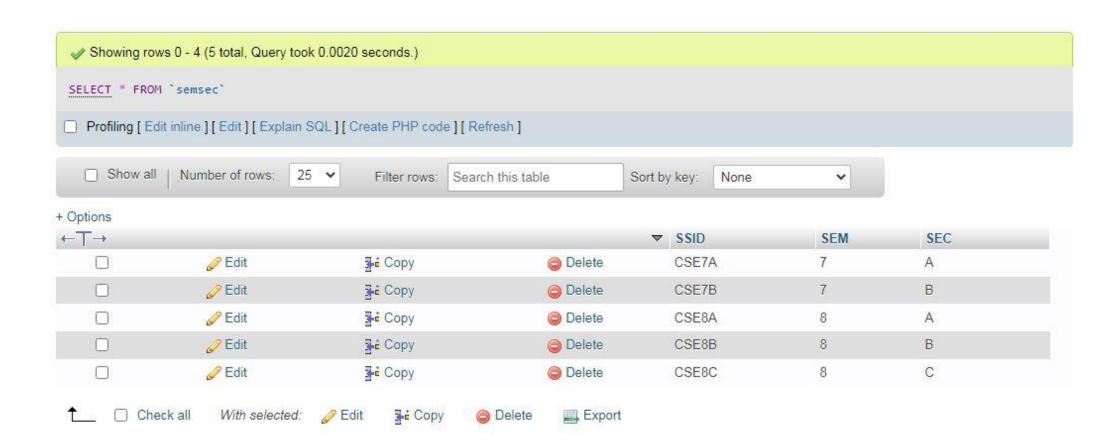
 INSERT INTO SEMSEC VALUES ('CSE8B', 8, 'B')
[ Edit inline ] [ Edit ] [ Create PHP code ]

√ 1 row inserted. (Query took 0.0532 seconds.)

 INSERT INTO SEMSEC VALUES ('CSE8C', 8,'C')
[ Edit inline ] [ Edit ] [ Create PHP code ]
 1 row inserted. (Query took 0.0442 seconds.)
 INSERT INTO SEMSEC VALUES ('CSE7A', 7, 'A')
[ Edit inline ] [ Edit ] [ Create PHP code ]

√ 1 row inserted. (Query took 0.0410 seconds.)

 INSERT INTO SEMSEC VALUES ('CSE7B', 7, 'B')
[ Edit inline ] [ Edit ] [ Create PHP code ]
```



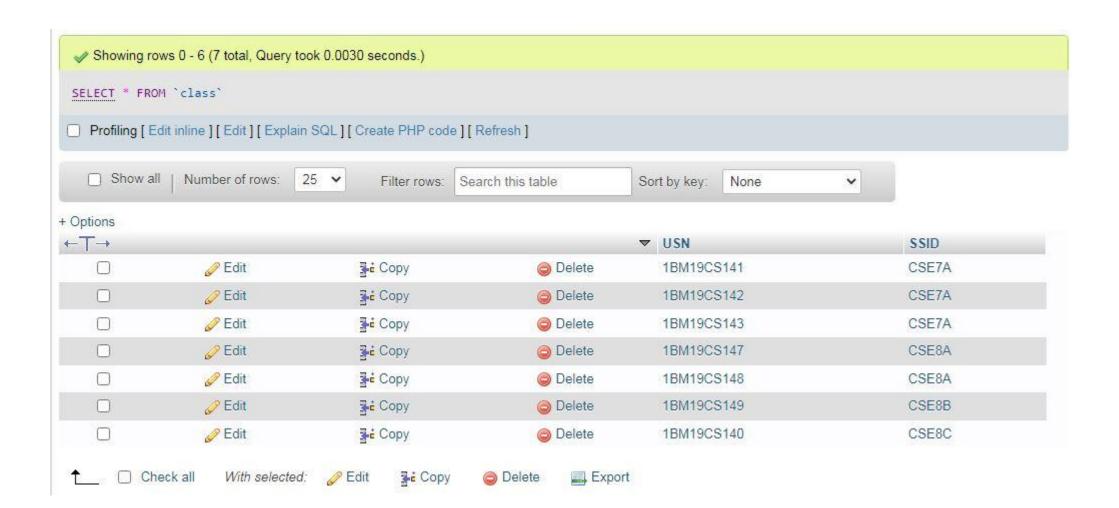
```
1 row inserted. (Query took 0.0552 seconds.)
 INSERT INTO CLASS VALUES ('18M19CS147', 'CSE8A')
[ Edit inline ] [ Edit ] [ Create PHP code ]
  1 row inserted. (Query took 0.0814 seconds.)
 INSERT INTO CLASS VALUES ('18M19CS148', 'CSE8A')
[ Edit inline ] [ Edit ] [ Create PHP code ]
  1 row inserted. (Query took 0.0300 seconds.)
 INSERT INTO CLASS VALUES ('18M19CS149','CSE8B')
[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ 1 row inserted. (Query took 0.0482 seconds.)

 INSERT INTO CLASS VALUES ('18M19CS140', 'CSE8C')
[ Edit inline ] [ Edit ] [ Create PHP code ]
  1 row inserted. (Query took 0.1624 seconds.)
 INSERT INTO CLASS VALUES ('18M19CS141', 'CSE7A')
[ Edit inline ] [ Edit ] [ Create PHP code ]

√ 1 row inserted. (Query took 0.0312 seconds.)

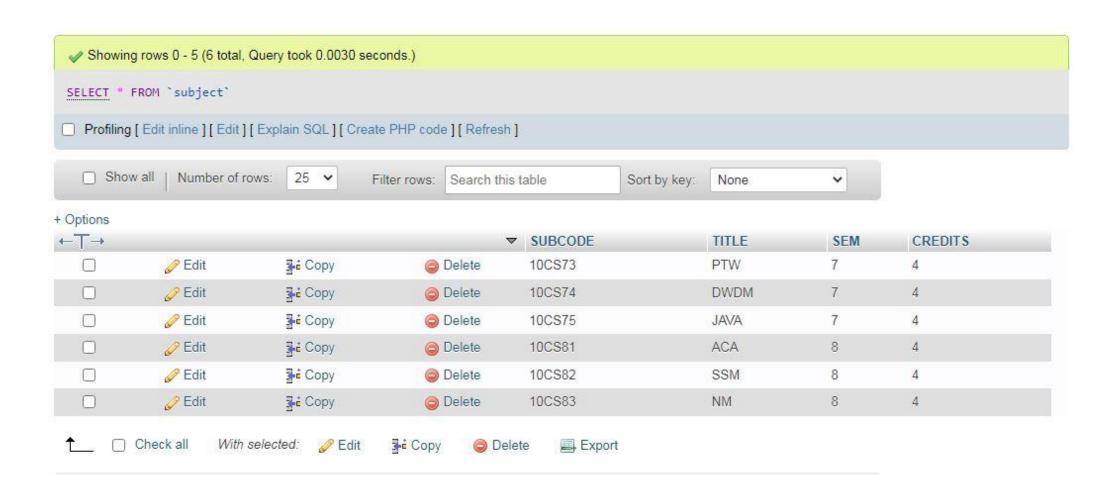
 INSERT INTO CLASS VALUES ('18M19CS142', 'CSE7A')
[ Edit inline ] [ Edit ] [ Create PHP code ]
 1 row inserted. (Query took 0.0312 seconds.)
 INSERT INTO CLASS VALUES ('18M19CS143', 'CSE7A')
[ Edit inline ] [ Edit ] [ Create PHP code ]
```



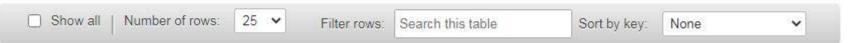
```
1 row inserted. (Query took 0.0488 seconds.)
 INSERT INTO SUBJECT VALUES ('10CS81', 'ACA', 8, 4)
[ Edit inline ] [ Edit ] [ Create PHP code ]
  1 row inserted. (Query took 0.0780 seconds.)
 INSERT INTO SUBJECT VALUES ('10C582', 'SSM', 8, 4)
[ Edit inline ] [ Edit ] [ Create PHP code ]
  1 row inserted. (Query took 0.0150 seconds.)
 INSERT INTO SUBJECT VALUES ('10CS83', 'NM', 8, 4)
[ Edit inline ] [ Edit ] [ Create PHP code ]
 1 row inserted. (Query took 0.1682 seconds.)
 INSERT INTO SUBJECT VALUES ('10CS73', 'PTW', 7, 4)
[ Edit inline ] [ Edit ] [ Create PHP code ]
 1 row inserted. (Query took 0.0340 seconds.)
 INSERT INTO SUBJECT VALUES ('10CS74', 'DWDM', 7, 4)
[ Edit inline ] [ Edit ] [ Create PHP code ]

√ 1 row inserted. (Query took 0.0276 seconds.)

 INSERT INTO SUBJECT VALUES ('10CS75', 'JAVA', 7, 4)
[ Edit inline ] [ Edit ] [ Create PHP code ]
```



✓ 9 rows inserted. (Query took 0.0850 seconds.) INSERT INTO `iamarks` (`USN`, `SUBCODE`, `SSID`, `TEST1`, `TEST2`, `TEST3`) VALUES ('18M19CS147', '10CS81', 'CSE8A', 15, 16, 18), ('18M19CS148', '10CS82', 'CSE8A', 12, 19, 14), ('18M19CS149', '10CS83', 'CSE8B', 19, 15, 20), ('18M19CS140', '10CS81', 'CSE8C', 20, 16, 19), ('18M19CS141', '10CS75', 'CSE7A', 15, 12), ('18M19CS141', '10CS75', 'CSE7A', 15, 12), ('18M19CS143', '10CS75', 'CSE7A', 15, 12), ('18M19CS143', '10CS75', 'CSE7A', 15, 12), ('18M19CS143', '10CS73', 'CSE7A', 30, 30, 40), ('18M19CS149', '10CS81', 'CSE8B', 40, 40, 0) [Edit inline] [Edit] [Create PHP code] ✓ Showing rows 0 - 8 (9 total, Query took 0.0020 seconds.) SELECT * FROM `iamarks`



Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

+ Options

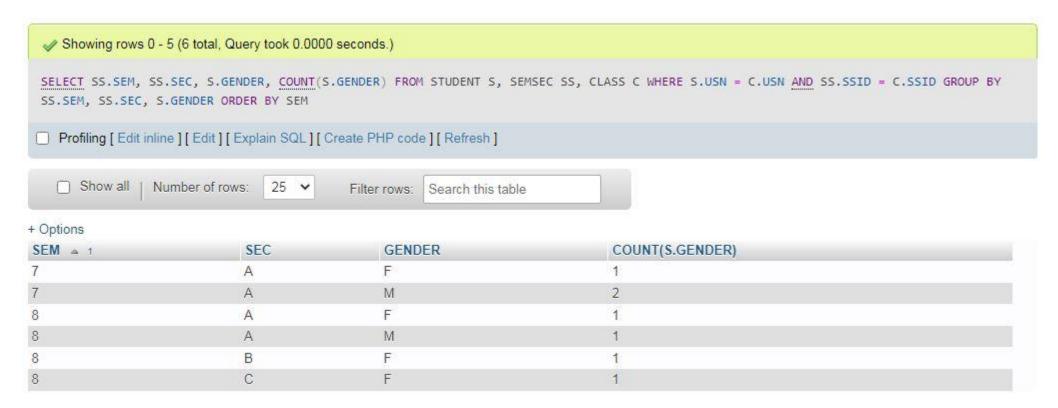
1BM19CS147 10CS81 CSE8A 15 16 18 1BM19CS148 10CS82 CSE8A 12 19 14 1BM19CS149 10CS83 CSE8B 19 15 20 1BM19CS140 10CS81 CSE8C 20 16 19 1BM19CS141 10CS75 CSE7A 15 15 12 1BM19CS142 10CS75 CSE7A 15 15 12	FINALIA
1BM19CS149 10CS83 CSE8B 19 15 20 1BM19CS140 10CS81 CSE8C 20 16 19 1BM19CS141 10CS75 CSE7A 15 15 12	NULL
1BM19CS140 10CS81 CSE8C 20 16 19 1BM19CS141 10CS75 CSE7A 15 15 12	NULL
1BM19CS141 10CS75 CSE7A 15 15 12	NULL
	NULL
1BM19CS142 10CS75 CSE7A 15 15 12	NULL
	NULL
1BM19CS143 10CS75 CSE7A 15 15 12	NULL
1BM19CS143 10CS73 CSE7A 30 30 40	NULL
1BM19CS149 10CS81 CSE8B 40 40 0	NULL

Write SQL queries to

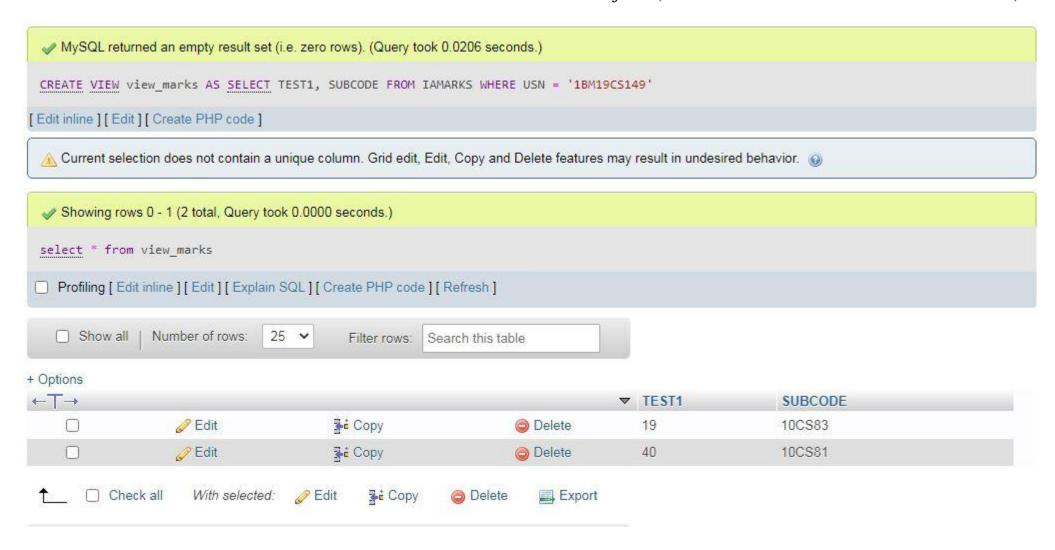
i. List all the student details studying in fourth semester 'C' section.



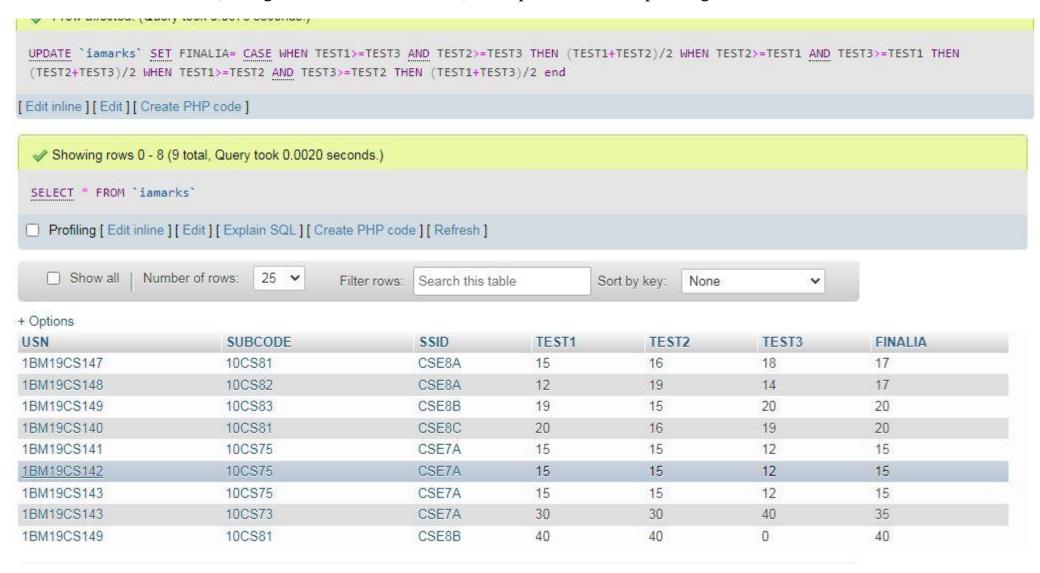
ii. Compute the total number of male and female students in each semester and in each section.



iii. Create a view of Test1 marks of student USN '1BI15CS101' in all subjects.(USN 1BM19CS149 USED IN THIS CASE)



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:

RANGE TAKEN AS

If FinalIA = 17 to 20 then CAT = 'Outstanding' (34 TO 40)

If FinalIA = 12 to 16 then CAT = 'Average' (24 TO 32)

If FinalIA< 12 then CAT = 'Weak' (<24)

Due to finalIA in range(0 to 40)

Give these details only for 8th semester A, B, and C section students.



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usn	SNAME	SUBCODE	FINALIA	CATEGORY
1BM19CS147	SHASHANK	10CS81	17	WEAK
1BM19CS148	SAUNDARYA	10CS82	17	WEAK
1BM19CS149	TINA	10CS83	20	WEAK
1BM19CS140	SUPRITA	10CS81	20	WEAK
1BM19CS149	TINA	10CS81	40	OUTSTANDING

Show all Number of rows:	25 🕶	Filter rows:	Search this table	
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