I. DDL Commands:

1. Create the database named CYBERCOLLEGE and the above tables in the CYBERCOLLEGE database; include the Primary Key Constraint, Referential Integrity Constraints, and Check Constraints.
2. Add a field Country to the STUDENT table with the default value set to 'India'.
3. Add a constraint to the Grade field in the ENROLMENT table that accepts only the values 'A', 'B' , 'C' and 'D'.
4. Modify the ENROLMENT table by changing the width of the field Grade to 2
5. Add a new column, salary to the INSTRUCTOR table and display its modified schema.
6. Drop the column Country from the STUDENT table.
.


```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —    □    ×
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 4
Server version: 5.5.8-log MySQL Community Server (GPL)

Copyright (c) 2000, 2010, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database cybercollege;
Query OK, 1 row affected (0.00 sec)

mysql> use cybercollege;
Database changed
mysql> create table student(stud_no varchar(9),stud_lname varchar(30),stud_fname varchar(20),stud_address varchar(50),st
ud_city varchar(30),state varchar(2),postal_code varchar(9));
Query OK, 0 rows affected (0.58 sec)

mysql> create table instructor(instructor_id varchar(5) primary key,instructor_lname varchar(30),instructor_fname varcha
r(20),instructor_phone varchar(8));
Query OK, 0 rows affected (0.17 sec)

mysql> create table course(course_code varchar(50),course_title varchar(25),course_hours numeric(2,0),semester varchar(2
0));
Query OK, 0 rows affected (0.22 sec)
```



```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —    □    ×
mysql> create table course(course_code varchar(50),course_title varchar(25),course_hours numeric(2,0),semester varchar(2
0));
Query OK, 0 rows affected (0.22 sec)

mysql> create table section(section_id numeric primary key,time_offered varchar(10),days_offered varchar(8),clas_size nu
meric(3,0),check(class_size>=0),number_enrolled numeric(3.0),check(number_enrolled>-0),instructor_id varchar(5) referenc
es instructor(instructor_id),course_code varchar(6) references course(course_code));
Query OK, 0 rows affected (0.20 sec)

mysql> create table enrollment(stud_no varchar(9) references student(stud_no),section_id varchar(7) references section(s
ection_id),grade varchar(2));
Query OK, 0 rows affected (0.39 sec)

mysql> alter table student add(country varchar(20) default 'INDIA');
Query OK, 0 rows affected (0.30 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

```
mysql> alter table enrollment add constraint grade check(grade='A' or grade='B' or grade='C' or grade='D');
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> alter table enrollment modify grade varchar(1);
Query OK, 0 rows affected (0.28 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> alter table instructor add salary varchar(10);
Query OK, 0 rows affected (0.25 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> desc instructor;
+------------------+-------------+------+-----+---------+-------+
| Field            | Type        | Null | Key | Default | Extra |
+------------------+-------------+------+-----+---------+-------+
| instructor_id    | varchar(5)  | NO   | PRI | NULL    |       |
| instructor_lname | varchar(30) | YES  |     | NULL    |       |
| instructor_fname | varchar(20) | YES  |     | NULL    |       |
| instructor_phone | varchar(8)  | YES  |     | NULL    |       |
| salary           | varchar(10) | YES  |     | NULL    |       |
+------------------+-------------+------+-----+---------+-------+
5 rows in set (0.17 sec)

mysql> alter table student drop country;
Query OK, 0 rows affected (0.27 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

7. Create a view for instructors to display the courses taught by an instructor. Display the personal details but by hiding salary information

```
mysql> create view instructor1 as select i.instructor_id,i.instructor_fname,i.instructor_lname,i.instructor_phone,c.cour
se_title from instructor i join course c join section s where i.instructor_id=s.instructor_id and s.course_code=c.course
_code;
Query OK, 0 rows affected (0.06 sec)

mysql> select * from instructor1;
Empty set (0.11 sec)

mysql>
```

8. Insert details of you and your 5 friends in STUDENT table and the details of 5 instructors with names (Asha, Ashna, Sandeep, Asifa, George) in INSTRUCTOR table

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —  □  ✕

mysql> desc student;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| stud_no        | varchar(9)  | YES  |     | NULL    |       |
| stud_lname     | varchar(30) | YES  |     | NULL    |       |
| stud_fname     | varchar(20) | YES  |     | NULL    |       |
| stud_address   | varchar(50) | YES  |     | NULL    |       |
| stud_city      | varchar(30) | YES  |     | NULL    |       |
| state          | varchar(2)  | YES  |     | NULL    |       |
| postal_code    | varchar(9)  | YES  |     | NULL    |       |
+----------------+-------------+------+-----+---------+-------+
7 rows in set (0.38 sec)

mysql> insert into student values("1000","RAJASEKHARAN","SRUTHI","CHITTILANGHAT","EDAPPAL","KE","679578");
Query OK, 1 row affected (0.35 sec)

mysql> insert into student values("1001","BALAN","SREELAKSHMI","VARANATT","GURUVAYUR","KE","679278");
Query OK, 1 row affected (0.41 sec)

mysql> insert into student values("1002","HARIRAJ","CHAITHANYA","NNNN","CHAVAKKAD","KE","679020");
Query OK, 1 row affected (0.15 sec)

mysql> insert into student values("1003","MANI","MANASA","NMMNNN","ARTHATT","KE","679023");
Query OK, 1 row affected (0.17 sec)
```

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —  □  ✕

mysql> insert into student values("1004","ROY","MEVEENA","JJJJ","ARTHATT","KE","679023");
Query OK, 1 row affected (0.15 sec)

mysql> insert into student values("1005","JAYADEVAN","ANJANA","KKK","VADAKKEKAD","KE","679423");
Query OK, 1 row affected (0.41 sec)

mysql> select * from student;
+---------+--------------+-------------+---------------+------------+-------+-------------+
| stud_no | stud_lname   | stud_fname  | stud_address  | stud_city  | state | postal_code |
+---------+--------------+-------------+---------------+------------+-------+-------------+
| 1000    | RAJASEKHARAN | SRUTHI      | CHITTILANGHAT | EDAPPAL    | KE    | 679578      |
| 1001    | BALAN        | SREELAKSHMI | VARANATT      | GURUVAYUR  | KE    | 679278      |
| 1002    | HARIRAJ      | CHAITHANYA  | NNNN          | CHAVAKKAD  | KE    | 679020      |
| 1003    | MANI         | MANASA      | NMMNNN        | ARTHATT    | KE    | 679023      |
| 1004    | ROY          | MEVEENA     | JJJJ          | ARTHATT    | KE    | 679023      |
| 1005    | JAYADEVAN    | ANJANA      | KKK           | VADAKKEKAD | KE    | 679423      |
+---------+--------------+-------------+---------------+------------+-------+-------------+
6 rows in set (0.09 sec)

mysql> _
```

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                          —    □    ×

+------------------+--------------+------+-----+---------+-------+
5 rows in set (0.00 sec)

mysql>  insert into instructor values("100"," ","ASHA","98745612","10000");
Query OK, 1 row affected (0.17 sec)

mysql>  insert into instructor values("101"," ","ASHNA","87455612","12000");
Query OK, 1 row affected (0.15 sec)

mysql>  insert into instructor values("102"," ","SANDEEP","78655612","20200");
Query OK, 1 row affected (0.16 sec)

mysql>  insert into instructor values("103"," ","ASIFA","51236478","20400");
Query OK, 1 row affected (0.17 sec)

mysql>  insert into instructor values("104"," ","GEORGE","987456123","30000");
Query OK, 1 row affected, 1 warning (0.17 sec)

mysql> select * from instructor;
+---------------+-----------------+-----------------+-----------------+--------+
| instructor_id | instructor_lname | instructor_fname | instructor_phone | salary |
+---------------+-----------------+-----------------+-----------------+--------+
| 100           |                 | ASHA            | 98745612        | 10000  |
| 101           |                 | ASHNA           | 87455612        | 12000  |
| 102           |                 | SANDEEP         | 78655612        | 20200  |
| 103           |                 | ASIFA           | 51236478        | 20400  |
| 104           |                 | GEORGE          | 98745612        | 30000  |
+---------------+-----------------+-----------------+-----------------+--------+
5 rows in set (0.00 sec)
```

9)Add details of the first and second semester courses. Also add a new course for Data Mining with a course code of 20MCA260 worth with credit of 4 hours

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                              —    □    ×

mysql>  insert into course values("20MCA101"," MFCS",4,1);
Query OK, 1 row affected (0.06 sec)

mysql>  insert into course values("20MCA102"," DFCA",5,1);
Query OK, 1 row affected (0.38 sec)

mysql>  insert into course values("20MCA103"," ADS",4,1);
Query OK, 1 row affected (0.19 sec)

mysql>  insert into course values("20MCA104"," ASE",4,1);
Query OK, 1 row affected (0.16 sec)

mysql>  insert into course values("20MCA201"," ADBMS",5,1);
Query OK, 1 row affected (0.16 sec)

mysql>  insert into course values("20MCA202"," ACN",4,1);
Query OK, 1 row affected (0.16 sec)

mysql>  insert into course values("20MCA203"," AI",4,1);
Query OK, 1 row affected (0.15 sec)

mysql>  insert into course values("20MCA204"," AOS",4,1);
Query OK, 1 row affected (0.15 sec)

mysql>  insert into course values("20MCA260"," DATA MINING",4,2);
Query OK, 1 row affected (0.13 sec)

mysql> select * from course;
+-------------+-------------+--------------+----------+
| course_code | course_title | course_hours | semester |
+-------------+-------------+--------------+----------+
| 20MCA101    | MFCS        |            4 | 1        |
| 20MCA102    | DFCA        |            5 | 1        |
| 20MCA103    | ADS         |            4 | 1        |
| 20MCA104    | ASE         |            4 | 1        |
| 20MCA201    | ADBMS       |            5 | 1        |
| 20MCA202    | ACN         |            4 | 1        |
| 20MCA203    | AI          |            4 | 1        |
| 20MCA204    | AOS         |            4 | 1        |
| 20MCA260    | DATA MINING |            4 | 2        |
+-------------+-------------+--------------+----------+
```

10) Add a new section for this new course with section ID as 301.The section should meet in 2-4 on MW in BLGNG102. The class size should be 35, and number enrolled should be 0. The instructor should be 3, and the course is 20MCA260. Also add sections 302 and 303 for the courses AOS and OB and enrol 5 students each to these course

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —    □    X

mysql> INSERT INTO SECTION VALUES('301','2-4','MON-WED','BLGNL102',35,0,'3','20MCA260');
Query OK, 1 row affected (0.16 sec)

mysql> INSERT INTO SECTION VALUES('302','9-10','MON-FRI','BLGNL118',35,0,'3','20MCA112');
Query OK, 1 row affected (0.16 sec)

mysql> INSERT INTO SECTION VALUES('303','9-10','MON-FRI','BLGNL106',35,0,'1157','20MCA113');
Query OK, 1 row affected (0.19 sec)

mysql> SELECT * FROM SECTION;
+------------+--------------+--------------+--------------+------------+-----------------+---------------+--------------+
| SECTION_ID | TIME_OFFERED | DAYS_OFFERED | SECTION_ROOM | CLASS_SIZE | NUMBER_ENROLLED | INSTRUCTOR_ID | COURSE_CODE |
+------------+--------------+--------------+--------------+------------+-----------------+---------------+--------------+
| 301        | 2-4          | MON-WED      | BLGNL102     |         35 |               0 | 3             | 20MCA260    |
| 302        | 9-10         | MON-FRI      | BLGNL118     |         35 |               0 | 3             | 20MCA112    |
| 303        | 9-10         | MON-FRI      | BLGNL106     |         35 |               0 | 1157          | 20MCA113    |
+------------+--------------+--------------+--------------+------------+-----------------+---------------+--------------+
3 rows in set (0.00 sec)

mysql> _
```

11. Register yourself along with your 3 friends for this new course by adding a row to the ENROLMENT table. The grade should be null.


```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —    □    X
mysql> INSERT INTO ENROLLMENT VALUES('101','301','NULL');
Query OK, 1 row affected, 1 warning (0.19 sec)

mysql> INSERT INTO ENROLLMENT VALUES('102','301','NULL');
Query OK, 1 row affected, 1 warning (0.16 sec)

mysql> INSERT INTO ENROLLMENT VALUES('103','302','NULL');
Query OK, 1 row affected, 1 warning (0.16 sec)

mysql> INSERT INTO ENROLLMENT VALUES('104','302','NULL');
Query OK, 1 row affected, 1 warning (0.16 sec)

mysql> INSERT INTO ENROLLMENT VALUES('100','30','NULL');
Query OK, 1 row affected, 1 warning (0.18 sec)

mysql> SELECT * FROM ENROLLMENT;
+---------+------------+-------+
| STUD_NO | SECTION_ID | GRADE |
+---------+------------+-------+
| 105     | 212        |       |
| 101     | 301        | N     |
| 102     | 301        | N     |
| 103     | 302        | N     |
| 104     | 302        | N     |
| 100     | 30         | N     |
+---------+------------+-------+
6 rows in set (0.00 sec)

mysql> _
```
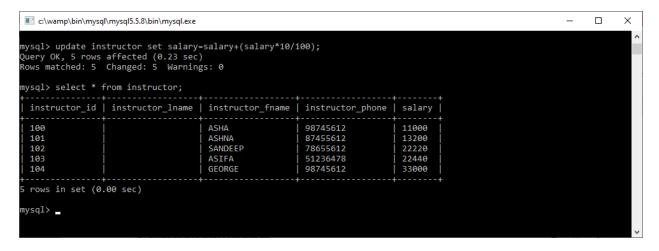
```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —    □    ×

mysql> INSERT INTO ENROLLMENT VALUES('106','301','NULL');
Query OK, 1 row affected, 1 warning (1.40 sec)

mysql> INSERT INTO ENROLLMENT VALUES('107','302','NULL');
Query OK, 1 row affected, 1 warning (0.16 sec)

mysql> INSERT INTO ENROLLMENT VALUES('108','303','NULL');
Query OK, 1 row affected, 1 warning (0.17 sec)

mysql> INSERT INTO ENROLLMENT VALUES('109','303','NULL');
Query OK, 1 row affected, 1 warning (0.16 sec)

mysql> SELECT * FROM ENROLLMENT;
+---------+------------+-------+
| STUD_NO | SECTION_ID | GRADE |
+---------+------------+-------+
| 105     | 212        |       |
| 101     | 301        | N     |
| 102     | 301        | N     |
| 103     | 302        | N     |
| 104     | 302        | N     |
| 100     | 30         | N     |
| 106     | 301        | N     |
| 107     | 302        | N     |
| 108     | 303        | N     |
| 109     | 303        | N     |
+---------+------------+-------+
10 rows in set (0.00 sec)
```

12. Update the 301 section, and increase the class sizes by 10%.

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —    □    ×

mysql> UPDATE SECTION SET CLASS_SIZE=(CLASS_SIZE*1.1) WHERE SECTION_ID='301';
Query OK, 1 row affected, 1 warning (0.21 sec)
Rows matched: 1  Changed: 1  Warnings: 1

mysql> SELECT * FROM SECTION;
+------------+-------------+-------------+--------------+------------+-----------------+---------------+-------------+
| SECTION_ID | TIME_OFFERED | DAYS_OFFERED | SECTION_ROOM | CLASS_SIZE | NUMBER_ENROLLED | INSTRUCTOR_ID | COURSE_CODE |
+------------+-------------+-------------+--------------+------------+-----------------+---------------+-------------+
| 301        | 2-4         | MON-WED     | BLGNL102     |     39 |             0 | 3             | 20MCA260    |
| 302        | 9-10        | MON-FRI     | BLGNL118     |     35 |             0 | 3             | 20MCA112    |
| 303        | 9-10        | MON-FRI     | BLGNL106     |     35 |             0 | 1157          | 20MCA113    |
+------------+-------------+-------------+--------------+------------+-----------------+---------------+-------------+
3 rows in set (0.00 sec)

mysql>
```

13. Give a 10% increment in salary for all instructors.

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —   □   ×

mysql> update instructor set salary=salary+(salary*10/100);
Query OK, 5 rows affected (0.23 sec)
Rows matched: 5  Changed: 5  Warnings: 0

mysql> select * from instructor;
+---------------+-----------------+-----------------+-----------------+--------+
| instructor_id | instructor_lname | instructor_fname | instructor_phone | salary |
+---------------+-----------------+-----------------+-----------------+--------+
| 100           |                 | ASHA            | 98745612        | 11000  |
| 101           |                 | ASHNA           | 87455612        | 13200  |
| 102           |                 | SANDEEP         | 78655612        | 22220  |
| 103           |                 | ASIFA           | 51236478        | 22440  |
| 104           |                 | GEORGE          | 98745612        | 33000  |
+---------------+-----------------+-----------------+-----------------+--------+
5 rows in set (0.00 sec)

mysql>
```

14. Delete Section 302and verify for the rows in ENROLMENT table for that section.

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —   □   ×

mysql> delete from section where section_id=302;
Query OK, 0 rows affected (0.00 sec)

mysql>


mysql> select * from Section;
+------------+--------------+-------------+--------------+------------+-----------------+---------------+-------------+
| Section_id | Time_offered | Day_offered | Section_room | Class_size | Number_enrolled | Instructor_id | Course_code |
+------------+--------------+-------------+--------------+------------+-----------------+---------------+-------------+
|        301 | -2           | MW          | BLGN102      |         39 |               0 | i3            | 20MCA6      |
|        303 | 2            | MW          | BLGN102      |         35 |               5 | i5            | 20MCA5      |
+------------+--------------+-------------+--------------+------------+-----------------+---------------+-------------+
2 rows in set (0.00 sec)

mysql>
```

15. Undo the previous delete operation

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —   □   ×

mysql> rollback;
Query OK, 0 rows affected (0.01 sec)

mysql>
```

16. Save all the transactions to the database.

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —    □    ✕

mysql> update instructor set salary=salary+(salary*10/100);
Query OK, 5 rows affected (0.23 sec)
Rows matched: 5  Changed: 5  Warnings: 0

mysql> select * from instructor;
+---------------+-----------------+-----------------+-----------------+--------+
| instructor_id | instructor_lname | instructor_fname | instructor_phone | salary |
+---------------+-----------------+-----------------+-----------------+--------+
| 100           |                 | ASHA            | 98745612        | 11000  |
| 101           |                 | ASHNA           | 87455612        | 13200  |
| 102           |                 | SANDEEP         | 78655612        | 22220  |
| 103           |                 | ASIFA           | 51236478        | 22440  |
| 104           |                 | GEORGE          | 98745612        | 33000  |
+---------------+-----------------+-----------------+-----------------+--------+
5 rows in set (0.00 sec)

mysql> commit;
Query OK, 0 rows affected (0.10 sec)

mysql> create user 'u1' identified by '12345678';
Query OK, 0 rows affected (0.70 sec)

mysql> select user from mysql.user;
+------+
| user |
+------+
| u1   |
| root |
| root |
|      |
| root |
+------+
5 rows in set (0.00 sec)
```

17. Grant the privilege to read and delete from the ENROLMENT table to the User U1.

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                    —    □    ✕
mysql> grant select,update on enrollment to u1;
Query OK, 0 rows affected (0.00 sec)

mysql> show grants for 'u1';
+---------------------------------------------------------------------------------------------------------+
| Grants for u1@%                                                                                          |
+---------------------------------------------------------------------------------------------------------+
| GRANT USAGE ON *.* TO 'u1'@'%' IDENTIFIED BY PASSWORD '*84AAC12F54AB666ECFC2A83C676908C8BBC381B1' |
| GRANT SELECT, UPDATE ON `cybercollege`.`enrollment` TO 'u1'@'%'                                          |
+---------------------------------------------------------------------------------------------------------+
2 rows in set (0.00 sec)

mysql>
```

18. Revoke the delete privilege from U1

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                          —    □    ×
mysql> grant select,update on enrollment to u1;
Query OK, 0 rows affected (0.00 sec)

mysql> show grants for 'u1';
+-------------------------------------------------------------------------------------------------------+
| Grants for u1@%                                                                                        |
+-------------------------------------------------------------------------------------------------------+
| GRANT USAGE ON *.* TO 'u1'@'%' IDENTIFIED BY PASSWORD '*84AAC12F54AB666ECFC2A83C676908C8BBC381B1'      |
| GRANT SELECT, UPDATE ON `cybercollege`.`enrollment` TO 'u1'@'%'                                        |
+-------------------------------------------------------------------------------------------------------+
2 rows in set (0.00 sec)

mysql> select user from mysql.user;
+------+
| user |
+------+
| u1   |
| root |
| root |
|      |
| root |
+------+
5 rows in set (0.00 sec)

mysql> revoke delete on enrollment from u1;
Query OK, 0 rows affected (0.00 sec)

mysql> show grants for 'u1';
+-------------------------------------------------------------------------------------------------------+
| Grants for u1@%                                                                                        |
+-------------------------------------------------------------------------------------------------------+
| GRANT USAGE ON *.* TO 'u1'@'%' IDENTIFIED BY PASSWORD '*84AAC12F54AB666ECFC2A83C676908C8BBC381B1'      |
| GRANT SELECT, UPDATE ON `cybercollege`.`enrollment` TO 'u1'@'%'                                        |
+-------------------------------------------------------------------------------------------------------+
2 rows in set (0.00 sec)

mysql>
```

19) 19. Display the full name and contact details of students living in Kochi.

20. List the student details who has longest first name

21. Display the name and phone number of the instructors who is handling the courses AOS and ADBMS.

22. List the codes, titles, and credit hours for courses worth 4 hours. Order the results in descending order of course code.

```
mysql> select Course_code, Course_title,Course_hours from Course where Course_hours=4 order by Course_code desc;
+-------------+--------------+--------------+
| Course_code | Course_title | Course_hours |
+-------------+--------------+--------------+
| 20MCA6      | Data Mining  |            4 |
+-------------+--------------+--------------+
1 row in set (0.08 sec)

mysql>
```

23. Display the names of the students in the descending order along with their phone number.

```
mysql> alter table student add phone_number varchar(10);
Query OK, 6 rows affected (0.67 sec)
Records: 6  Duplicates: 0  Warnings: 0

mysql> update student set phone_number="9778349331" where stud_no="1000";
Query OK, 1 row affected (0.17 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update student set phone_number="9656859215" where stud_no="1001";
Query OK, 1 row affected (0.17 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update student set phone_number="9656561284" where stud_no="1002";
Query OK, 1 row affected (0.19 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update student set phone_number="9656523894" where stud_no="1003";
Query OK, 1 row affected (0.06 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update student set phone_number="7733669988" where stud_no="1004";
Query OK, 1 row affected (0.17 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update student set phone_number="7722369988" where stud_no="1005";
Query OK, 1 row affected (0.16 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update student set phone_number="8866445577" where stud_no="1006";
Query OK, 0 rows affected (0.00 sec)
Rows matched: 0  Changed: 0  Warnings: 0

mysql> select *from student;
+---------+-------------+-------------+---------------+-------------+-------+-------------+--------------+
| stud_no | stud_lname  | stud_fname  | stud_address  | stud_city   | state | postal_code | phone_number |
```

```
Rows matched: 0  Changed: 0  Warnings: 0

mysql> select *from student;
+---------+--------------+--------------+--------------+--------------+-------+-------------+--------------+
| stud_no | stud_lname   | stud_fname   | stud_address | stud_city    | state | postal_code | phone_number |
+---------+--------------+--------------+--------------+--------------+-------+-------------+--------------+
|  1000   | RAJASEKHARAN | SRUTHI       | CHITTILANGHAT| KOCHI        | KE    | 679578      | 9778349331   |
|  1001   | BALAN        | SREELAKSHMI  | VARANATT     | GURUVAYUR    | KE    | 679278      | 9656859215   |
|  1002   | HARIRAJ      | CHAITHANYA   | NNNN         | CHAVAKKAD    | KE    | 679020      | 9656561284   |
|  1003   | MANI         | MANASA       | NMMNNN       | ARTHATT      | KE    | 679023      | 9656523894   |
|  1004   | ROY          | MEVEENA      | JJJJ         | ARTHATT      | KE    | 679023      | 7733669988   |
|  1005   | JAYADEVAN    | ANJANA       | KKK          | VADAKKEKAD   | KE    | 679423      | 7722369988   |
+---------+--------------+--------------+--------------+--------------+-------+-------------+--------------+
6 rows in set (0.00 sec)

mysql> select stud_fname,stud_lname,phone_number from student order by stud_fname desc;
+-------------+--------------+--------------+
| stud_fname  | stud_lname   | phone_number |
+-------------+--------------+--------------+
| SRUTHI      | RAJASEKHARAN | 9778349331   |
| SREELAKSHMI | BALAN        | 9656859215   |
| MEVEENA     | ROY          | 7733669988   |
| MANASA      | MANI         | 9656523894   |
| CHAITHANYA  | HARIRAJ      | 9656561284   |
| ANJANA      | JAYADEVAN    | 7722369988   |
+-------------+--------------+--------------+
6 rows in set (0.00 sec)

mysql> _
```

24. List the student's name, course code and section id grouping the students by their grade.

```
mysql> select Student.Stud_fname,Student.Stud_lname,Section.Course_code,Enrolment.Section_id from Student inner join S
ection inner join Enrolment on Student.Stud_no=Enrolment.Stud_no and Section.Section_id=Enrolment.Section_id group by
Enrolment.Grade;
+------------+------------+-------------+------------+
| Stud_fname | Stud_lname | Course_code | Section_id |
+------------+------------+-------------+------------+
| Meghna     | S          | 20MCA6      | 301        |
+------------+------------+-------------+------------+
1 row in set (0.16 sec)
```

25. Use an inner join between the STUDENT and ENROLMENT tables for showing the full name, Section id and Grade.

```
mysql> select student.stud_fname,student.stud_lname,enrollment.section_id,enrollment.grade from student inner join enrol
lment on student.stud_no=enrollment.stud_no;
Empty set (0.31 sec)

mysql>
```

26. Use an outer join between the STUDENT and ENROLMENT tables for showing the full name, Section id and Grade. Include all the students regardless of whether they

have a matching section.

27. Give a 7% salary raise to instructors whose salary is less than the average.

28. List full name and salary of instructors whose last name ends with 'a' and earns highest salary.

29. Display the details of instructor who draws lowest salary.

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                        —    □    ×

mysql> select instructor_fname,salary from instructor where salary=(select max(salary) from instructor)and instructor_fn
ame in(select instructor_fname from instructor where instructor_fname like "%a");
Empty set (0.00 sec)

mysql>
mysql> select   *  from  instructor where salary=(select min(salary)from instructor);
+---------------+-----------------+-----------------+-----------------+--------+
| instructor_id | instructor_lname | instructor_fname | instructor_phone | salary |
+---------------+-----------------+-----------------+-----------------+--------+
| 100           |                 | ASHA            | 98745612        | 11000  |
+---------------+-----------------+-----------------+-----------------+--------+
1 row in set (0.00 sec)

mysql>
```

30. List the students details who lived in Kochi, Kerala or in Bangalore, Karnataka or both.

```
c:\wamp\bin\mysql\mysql5.5.8\bin\mysql.exe                                        —    □    ×

mysql> select *from student;
+---------+-------------+-------------+---------------+------------+-------+-------------+--------------+
| stud_no | stud_lname  | stud_fname  | stud_address  | stud_city  | state | postal_code | phone_number |
+---------+-------------+-------------+---------------+------------+-------+-------------+--------------+
| 1000    | RAJASEKHARAN | SRUTHI     | CHITTILANGHAT | KOCHI      | KE    | 679578      | 9778349331   |
| 1001    | BALAN       | SREELAKSHMI | VARANATT      | GURUVAYUR  | KE    | 679278      | 9656859215   |
| 1002    | HARIRAJ     | CHAITHANYA  | NNNN          | CHAVAKKAD  | KE    | 679020      | 9656561284   |
| 1003    | MANI        | MANASA      | NMMNNN        | ARTHATT    | KE    | 679023      | 9656523894   |
| 1004    | ROY         | MEVEENA     | JJJJ          | KERALA     | KE    | 679023      | 7733669988   |
| 1005    | JAYADEVAN   | ANJANA      | KKK           | VADAKKEKAD | KE    | 679423      | 7722369988   |
+---------+-------------+-------------+---------------+------------+-------+-------------+--------------+
6 rows in set (0.00 sec)

mysql> select *from student where stud_city="KOCHI" and "KERALA" or "BANGALORE" and "KARNATAKA" or stud_city in("KOCHI",
"KERALA","BANGALORE","KARNATAKA");
+---------+-------------+-------------+---------------+------------+-------+-------------+--------------+
| stud_no | stud_lname  | stud_fname  | stud_address  | stud_city  | state | postal_code | phone_number |
+---------+-------------+-------------+---------------+------------+-------+-------------+--------------+
| 1000    | RAJASEKHARAN | SRUTHI     | CHITTILANGHAT | KOCHI      | KE    | 679578      | 9778349331   |
| 1004    | ROY         | MEVEENA     | JJJJ          | KERALA     | KE    | 679023      | 7733669988   |
+---------+-------------+-------------+---------------+------------+-------+-------------+--------------+
2 rows in set, 2 warnings (0.03 sec)

mysql>
```