Lap2

1. Add gender column for the student table. It holds two value (male or female).

```
mysql> alter table student add column gender enum('male','femal');
Query OK, 0 rows affected (0.26 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql>
```

2.Add birth date column for the student table.

```
mysql> alter table student add column birthdate date;
Query OK, 0 rows affected (0.34 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

3. Delete the name column and replace it with two colums first name and last name.

```
mysql> alter table student add column birthdate date;
Query OK, 0 rows affected (0.34 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> alter table student drop column name;
Query OK, 0 rows affected (0.48 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> alter table student add column fName varchar(200);
Query OK, 0 rows affected (0.30 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> alter table student add column lName varchar(200);
Query OK, 0 rows affected (0.96 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

5. Add foreign key constrains in Your Tables with options on delete cascaded .

```
mysql> alter table student_subj_exam add foreign key (subj_id) references subject(subJ_id) on delete casc
ade;
Query OK, 4 rows affected (2.30 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

```
mysql> alter table student_phone add foreign key(id_phone) references student(id) on delete cascad
e;
Query OK, 6 rows affected (2.78 sec)
Records: 6  Duplicates: 0  Warnings: 0
```


```
mysql> alter table student_subj_exam add foreign key (subj_id) references subject(subJ_id) on delete casc
ade;
Query OK, 4 rows affected (2.30 sec)
Records: 4  Duplicates: 0  Warnings: 0
```


6. Update your information by changing data for (gender, birthdate, first name, last

name, contact info). Done

7. Display all students' information.

```
mysql> select * from student;
+----+-----------------+----------+--------+------------+-------+--------+
| id | Email           | address  | gender | birthdate  | fName | lName  |
+----+-----------------+----------+--------+------------+-------+--------+
|  1 | ghada@gmail.com | Mansoura | femal  | 2002-10-06 | ghada | emad   |
|  2 | gehad@gmail.com | Mansoura | femal  | 2000-01-04 | gehad | ashraf |
|  3 | fatma@gmail.com | Damietta | femal  | 2001-09-09 | fatma | ali    |
|  4 | ali@gmail.com   | Cairo    | male   | 2002-10-09 | ali   | ahmed  |
+----+-----------------+----------+--------+------------+-------+--------+
4 rows in set (0.00 sec)
```

8. Display male students only.

```
mysql> select * from student where gender='male';
+----+---------------+---------+--------+------------+-------+-------+
| id | Email         | address | gender | birthdate  | fName | lName |
+----+---------------+---------+--------+------------+-------+-------+
|  4 | ali@gmail.com | Cairo   | male   | 2002-10-09 | ali   | ahmed |
+----+---------------+---------+--------+------------+-------+-------+
1 row in set (0.00 sec)
```

9.Display the number of female students.

```
mysql> select count(*) as count_of_female from student where gender='femal';
+-----------------+
| count_of_female |
+-----------------+
|               3 |
+-----------------+
1 row in set (0.00 sec)
```

10.Display the students who are born before 1992-10-01.

```
mysql> select * from student where birthdate<'1992-10-01';
Empty set (0.00 sec)
```

11.Display male students who are born before 1991-10-01

```
mysql> select * from student where birthdate>'1991-10-01' and gender='male';
+----+---------------+---------+--------+------------+-------+-------+
| id | Email         | address | gender | birthdate  | fName | lName |
+----+---------------+---------+--------+------------+-------+-------+
|  4 | ali@gmail.com | Cairo   | male   | 2002-10-09 | ali   | ahmed |
+----+---------------+---------+--------+------------+-------+-------+
1 row in set (0.00 sec)
```

12. Display subjects and their max score sorted by max score

```
mysql> select Name,max_score from subject order by max_score;
+-------------+-----------+
| Name        | max_score |
+-------------+-----------+
| cpp         |       100 |
| data base   |       100 |
| English     |       100 |
| java script |       100 |
+-------------+-----------+
4 rows in set (0.00 sec)
```

13. Display the subject with highest max score

```
mysql> select Name from subject group by Name having max(max_score);
+-------------+
| Name        |
+-------------+
| cpp         |
| data base   |
| English     |
| java script |
+-------------+
4 rows in set (0.27 sec)
```

14. Display students' names that begin with A

```
mysql> select fName,lName from student where fname like 'a%';
+-------+-------+
| fName | lName |
+-------+-------+
| ali   | ahmed |
+-------+-------+
1 row in set (0.04 sec)
```

15.Display the number of students' their name is "Mohammed"

```
mysql> select count(*) no_students from student where fname='mohammed';
+-------------+
| no_students |
+-------------+
|           0 |
+-------------+
1 row in set (0.00 sec)
```

16.Display the number of males and females.

```
mysql> select count(*) from student where gender='male' or gender='femal';
+----------+
| count(*) |
+----------+
|        4 |
+----------+
1 row in set (0.00 sec)
```

17.Display the repeated first names and their counts if higher than 2.

```
mysql> select fName,count(*) from student group by fName Having count(*)>2 ;
Empty set (0.00 sec)
```

18. Display students' names, their score and subject name

```
mysql> select S.fName,S.lName,E.score_In_exam ,Subj.name from
    -> student S inner join student_subj_exam E on S.id=E.stu_id
    -> inner join subject Subj on Subj.subJ_id=S.id;
+-------+--------+---------------+-------------+
| fName | lName  | score_In_exam | name        |
+-------+--------+---------------+-------------+
| ghada | emad   |            70 | cpp         |
| gehad | ashraf |            90 | data base   |
| fatma | ali    |            80 | English     |
| ali   | ahmed  |           100 | java script |
+-------+--------+---------------+-------------+
4 rows in set (0.00 sec)
```

19.Delete students their score is lower than 50 in a particular subject exam.

```
mysql> delete s from student s join student_subj_exam E on s.id=E.stu_id inner join subject sub on sub.subJ_id=s.id and E.score_In_exam=50 and sub.name='cpp';

Query OK, 0 rows affected (0.20 sec)
```