SELECT with various clause – BETWEEN, IN, Aggregate function

IN & BETWEEN

1.   List the type of the courses "Statistics" and "Programming"

```
LRRUR 1140 (42302). TdULE  student.courses doesn't exist
mysql> SELECT coursetype FROM Course WHERE CourseDesc IN ('Computer Science 101', 'Mathematics 201');
+------------+
| coursetype |
+------------+
| manadtory  |
| elective   |
+------------+
2 rows in set (0.00 sec)

mysql>
```

2.   The instructor wants to know the CourseNos whose scores are in the range 50 to 80

```
mysql> select CourseNo from StudentScores where score between 50 and 80;
+----------+
| CourseNo |
+----------+
| C001     |
| C001     |
| C002     |
| C002     |
+----------+
4 rows in set (0.00 sec)
```

AGGREGATE

1.   Find the average mark of "C002".

```
mysql> select avg(Score) from StudentScores where CourseNo='C002';
+------------+
| avg(Score) |
+------------+
|    75.0000 |
+------------+
1 row in set (0.00 sec)

mysql>
```

2.   List the maximum, minimum mark for "C021"

```
mysql> select max(Score),MIN(Score) from StudentScores where CourseNo='C002';
+------------+------------+
| max(Score) | MIN(Score) |
+------------+------------+
|         85 |         65 |
+------------+------------+
1 row in set (0.02 sec)

mysql>
```

```
mysql> select max(Score),min(Score),avg(Score) from StudentScores group by coursename ;
+------------+------------+------------+
| max(Score) | min(Score) | avg(Score) |
+------------+------------+------------+
|         90 |         70 |    80.0000 |
|         85 |         65 |    75.0000 |
+------------+------------+------------+
2 rows in set (0.02 sec)
```

3.   List the maximum, minimum, average mark for each subject in 5th semester
4.
List the name of the courses and average mark of each courses.

```
o rows in set (0.00 sec)

mysql> select coursename,avg(score) from StudentScores group by coursename;
+------------+------------+
| coursename | avg(score) |
+------------+------------+
| computersci |   80.0000 |
| probability |   75.0000 |
+------------+------------+
2 rows in set (0.02 sec)

mysql>
```

5.   Calculate the sum of all the scores.

```
2 rows in set (0.02 sec)

mysql> select sum(score) from StudentScores;
+------------+
| sum(score) |
+------------+
|        465 |
+------------+
1 row in set (0.00 sec)

mysql>
```

6.   How many students are registered for each course? Display the

course description and the number of students registered in each course.

```
mysql> select coursedesc,count(StudentNo) from StudentScores group by coursedesc;
+------------+------------------+
| coursedesc | count(StudentNo) |
+------------+------------------+
| Cse        |                3 |
| mat        |                3 |
+------------+------------------+
2 rows in set (0.00 sec)

mysql>
```

7.   How many courses did each student register for? Use Assessment table.

```
mysql> select StudentNo,count(coursename) from StudentScores group by StudentNo;
+-----------+-------------------+
| StudentNo | count(coursename) |
+-----------+-------------------+
| S001      |                 2 |
| S002      |                 2 |
| S003      |                 2 |
+-----------+-------------------+
3 rows in set (0.00 sec)

mysql>
```