Name: Sanghavi Dommata

Id: AF0400654

Lab 3

1. Perform and demonstrate the cross-join between the student and course table.

Students

```
mysql> select * from Student;
+-----------+-----------+----------+--------+----------------+
| StudentID | FirstName | LastName | Gender | Email          |
+-----------+-----------+----------+--------+----------------+
|         1 | Teja      | kiran    | M      | tej@gmail.com  |
|         2 | raj       | kumar    | M      | rajj@gmail.com |
|         3 | sai       | kumar    | M      | sai@gmail.com  |
+-----------+-----------+----------+--------+----------------+
3 rows in set (0.00 sec)
```

Course

```
mysql> select * from course;
+----------+--------------------------+---------+
| CourseID | CourseTitle              | Credits |
+----------+--------------------------+---------+
|        1 | Introduction of computer |       4 |
|        2 | Science                  |       5 |
|        3 | Telugu                   |       3 |
|        4 | Maths                    |       5 |
|        5 | English                  |       4 |
+----------+--------------------------+---------+
5 rows in set (0.00 sec)
```

Select * from Student cross Join Course;

```
mysql> Select * from student cross join course;
+-----------+-----------+----------+--------+---------------+----------+-------------------------+---------+
| StudentID | FirstName | LastName | Gender | Email         | CourseID | CourseTitle             | Credits |
+-----------+-----------+----------+--------+---------------+----------+-------------------------+---------+
|         1 | Teja      | kiran    | M      | tej@gmail.com |        1 | Introduction of computer |       4 |
|         2 | raj       | kumar    | M      | rajj@gmail.com |        1 | Introduction of computer |       4 |
|         3 | sai       | kumar    | M      | sai@gmail.com |        1 | Introduction of computer |       4 |
|         1 | Teja      | kiran    | M      | tej@gmail.com |        2 | Science                 |       5 |
|         2 | raj       | kumar    | M      | rajj@gmail.com |        2 | Science                 |       5 |
|         3 | sai       | kumar    | M      | sai@gmail.com |        2 | Science                 |       5 |
|         1 | Teja      | kiran    | M      | tej@gmail.com |        3 | Telugu                  |       3 |
|         2 | raj       | kumar    | M      | rajj@gmail.com |        3 | Telugu                  |       3 |
|         3 | sai       | kumar    | M      | sai@gmail.com |        3 | Telugu                  |       3 |
|         1 | Teja      | kiran    | M      | tej@gmail.com |        4 | Maths                   |       5 |
|         2 | raj       | kumar    | M      | rajj@gmail.com |        4 | Maths                   |       5 |
|         3 | sai       | kumar    | M      | sai@gmail.com |        4 | Maths                   |       5 |
|         1 | Teja      | kiran    | M      | tej@gmail.com |        5 | English                 |       4 |
|         2 | raj       | kumar    | M      | rajj@gmail.com |        5 | English                 |       4 |
|         3 | sai       | kumar    | M      | sai@gmail.com |        5 | English                 |       4 |
+-----------+-----------+----------+--------+---------------+----------+-------------------------+---------+
15 rows in set (0.01 sec)
```

2.Perform and demonstrate the inner join on Student and instructor table based on common FirstName

```
mysql> select * from Student;
+-----------+-----------+----------+--------+----------------+
| StudentID | FirstName | LastName | Gender | Email          |
+-----------+-----------+----------+--------+----------------+
|         1 | Teja      | kiran    | M      | tej@gmail.com  |
|         2 | raj       | kumar    | M      | rajj@gmail.com |
|         3 | sai       | kumar    | M      | sai@gmail.com  |
|         4 | ankit     | raj      | NULL   | NULL           |
+-----------+-----------+----------+--------+----------------+
4 rows in set (0.00 sec)

mysql> select * from instructor;
+-------------+-----------+----------+-----------------------+
| InstructorID | FirstName | LastName | Email                 |
+-------------+-----------+----------+-----------------------+
|           1 | Teja      | Kiran    | tejakiran456@gmail.com |
|           2 | Kiran     | Teja     | teja123@gmail.com      |
|           3 | raj       | Kumar    | raju@gmail.com         |
|           4 | shiv      | Kumar    | shiva@gmail.com        |
|           5 | sai       | Tej      | sai@gmail.com          |
+-------------+-----------+----------+-----------------------+
5 rows in set (0.00 sec)
```

Mysql>selects s.firstname,c.firstname

→from Student s inner join instructor c

→where s.FirstName =c.FirstName;

```
mysql> select s.FirstName,c.FirstName
    -> from student s inner join instructor c
    -> where s.FirstName=c.Firstname;
+-----------+-----------+
| FirstName | FirstName |
+-----------+-----------+
| Teja      | Teja      |
| raj       | raj       |
| sai       | sai       |
+-----------+-----------+
```

3.Perform and demonstrate the left join instructor and student based on common id;

```
mysql> select * from instructor;
+--------------+-----------+----------+------------------------+
| InstructorID | FirstName | LastName | Email                  |
+--------------+-----------+----------+------------------------+
|            1 | Teja      | Kiran    | tejakiran456@gmail.com |
|            2 | Kiran     | Teja     | teja123@gmail.com      |
|            3 | raj       | Kumar    | raju@gmail.com         |
|            4 | shiv      | Kumar    | shiva@gmail.com        |
|            5 | sai       | Tej      | sai@gmail.com          |
+--------------+-----------+----------+------------------------+
5 rows in set (0.00 sec)

mysql> select * from student;
+-----------+-----------+----------+--------+----------------+
| StudentID | FirstName | LastName | Gender | Email          |
+-----------+-----------+----------+--------+----------------+
|         1 | Teja      | kiran    | M      | tej@gmail.com  |
|         2 | raj       | kumar    | M      | rajj@gmail.com |
|         3 | sai       | kumar    | M      | sai@gmail.com  |
+-----------+-----------+----------+--------+----------------+
3 rows in set (0.00 sec)
```

Mysql> select*

→from instructor I left join student s

→on I.instructorId = s.studentId;

```
mysql> select *
    -> from instructor i left join student s
    -> on i.InstructorId=s.studentId;
+--------------+-----------+----------+------------------------+-----------+-----------+----------+--------+----------------+
| InstructorID | FirstName | LastName | Email                  | StudentID | FirstName | LastName | Gender | Email          |
+--------------+-----------+----------+------------------------+-----------+-----------+----------+--------+----------------+
|            1 | Teja      | Kiran    | tejakiran456@gmail.com |         1 | Teja      | kiran    | M      | tej@gmail.com  |
|            2 | Kiran     | Teja     | teja123@gmail.com      |         2 | raj       | kumar    | M      | rajj@gmail.com |
|            3 | raj       | Kumar    | raju@gmail.com         |         3 | sai       | kumar    | M      | sai@gmail.com  |
|            4 | shiv      | Kumar    | shiva@gmail.com        |      NULL | NULL      | NULL     | NULL   | NULL           |
|            5 | sai       | Tej      | sai@gmail.com          |      NULL | NULL      | NULL     | NULL   | NULL           |
+--------------+-----------+----------+------------------------+-----------+-----------+----------+--------+----------------+
5 rows in set (0.00 sec)
```