Lab Exercise 2 (27-02-2023)

Table Creation

```sql
3    CREATE TABLE Department(
4      DeptId int PRIMARY KEY,
5      Name varchar(25),
6      HoD int,
7      Phone bigint
8    );

9
10   CREATE TABLE Professor(
11     EmpId int PRIMARY KEY,
12     Name varchar(25),
13     Sex varchar(2),
14     StartYear date,
15     DeptNo int,
16     Phone bigint
17   );

18
19   CREATE TABLE Student(
20     RollNo int PRIMARY KEY,
21     Name varchar(25),
22     Degree varchar(30),
23     Year date,
24     Sex varchar(2),
25     DeptNo int,
26     Advisor int
27   );

30   CREATE TABLE Course(
31     CourseId char(5) PRIMARY KEY,
32     CourseName varchar(25),
33     Credits int,
34     DeptNo int REFERENCES Department(DeptId)
35   );

36
37
38   CREATE TABLE Enrollment(
39     RollNo int REFERENCES Student(RollNo),
40     CourseId char(5) REFERENCES Course(CourseId),
41     Sem int,
42     Year int,
43     Grade varchar(2)
44   );

45
46
47   CREATE TABLE Teaching(
48     EmpId int REFERENCES Professor(EmpId),
49     CourseId char(5) REFERENCES Course(CourseId),
50     Sem int,
51     Year int,
52     ClassRoom char(4)
53   );

54
```

```
55    CREATE TABLE Prerequisite(
56      Prereqcourse char(5) REFERENCES Course(CourseId),
57      CourseId char(5) REFERENCES Course(CourseId)
58    );
59
```

Added Constraints

```
1    ALTER TABLE Student
2    ADD CONSTRAINT c1 FOREIGN KEY(DeptNo) REFERENCES Department(DeptId);
3
4    ALTER TABLE Student
5    ADD CONSTRAINT c2 FOREIGN KEY(Advisor) REFERENCES Professor(EmpId);
6
7    ALTER TABLE Department
8    ADD CONSTRAINT c3 FOREIGN KEY(HoD) REFERENCES Professor(EmpId);
9
10   ALTER TABLE Professor
11   ADD CONSTRAINT c4 FOREIGN KEY(DeptNo) REFERENCES Department(DeptId);
12
13
```

Display of All tables

```
mysql> Select * from teaching;
+--------+----------+-------+-------+-----------+
| EmpId  | CourseId | Sem   | Year  | ClassRoom |
+--------+----------+-------+-------+-----------+
|     1  | CS101    |    1  |    1  | CS-1      |
+--------+----------+-------+-------+-----------+
1 row in set (0.00 sec)
```

```
mysql> select * from Course;
+----------+-------------------------+---------+--------+
| CourseId | CourseName              | Credits | DeptNo |
+----------+-------------------------+---------+--------+
| CS101    | Artificial Intelligence |       4 |      3 |
+----------+-------------------------+---------+--------+
1 row in set (0.00 sec)

mysql> Select * from Department;
+--------+------+------+-------+
| DeptId | Name | HoD  | Phone |
+--------+------+------+-------+
|      3 | CSE  |    1 | 1212  |
|      5 | CHEM |    2 | 1212  |
+--------+------+------+-------+
2 rows in set (0.01 sec)

mysql> Select * from Enrollment;
+----------+----------+------+------+-------+
| RollNo   | CourseId | Sem  | Year | Grade |
+----------+----------+------+------+-------+
| 21110088 | CS101    |    1 |    1 | O     |
+----------+----------+------+------+-------+
1 row in set (0.01 sec)

mysql> Select * from Prerequisite;
+--------------+----------+
| Prereqcourse | CourseId |
+--------------+----------+
| NULL         | CS101    |
+--------------+----------+
1 row in set (0.00 sec)

mysql> Select * from Professor;
+-------+----------+------+------------+--------+------------+
| EmpId | Name     | Sex  | StartYear  | DeptNo | Phone      |
+-------+----------+------+------------+--------+------------+
|     1 | Waseem   | m    | 2017-01-01 |      3 | 9988776656 |
|     2 | Harini   | f    | 2000-01-01 |      5 | 9943424656 |
|     3 | Ravindran| m    | 1989-01-01 |      3 | 8843444656 |
+-------+----------+------+------------+--------+------------+
3 rows in set (0.00 sec)

mysql> Select * from student;
+----------+----------+--------+------------+------+--------+---------+
| RollNo   | Name     | Degree | Year       | Sex  | DeptNo | Advisor |
+----------+----------+--------+------------+------+--------+---------+
| 21110011 | Balu     | Btech  | 2020-07-01 | M    |      3 |       3 |
| 21110032 | Mrunal   | Btech  | 2020-07-01 | F    |      5 |       2 |
| 21110088 | Prathosh | Btech  | 2021-07-01 | M    |      3 |       1 |
+----------+----------+--------+------------+------+--------+---------+
```