RDBMS (Lab1_ANP_C7279_RDBMS_DDL)

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Lab 1. Create a Database & Table Using MySQL Command-Line Client.

- Create a database with the name StudentManagementSystem.

Code:

```
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 22
Server version: 8.0.37 MySQL Community Server - GPL

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owners.

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

mysql> create database StudentManagementSystem;
Query OK, 1 row affected (0.28 sec)

mysql> use StudentManagementSystem;
Database changed
mysql>
```

Output:

```
mysql> show databases;
+------------------------+
| Database               |
+------------------------+
| hareesh                |
| information_schema     |
| mysql                  |
| performance_schema     |
| studentmanagementsystem |
| sys                    |
+------------------------+
6 rows in set (0.12 sec)
```

Create a table with named Student with attributes:

- StudentID (Primary Key)
- FirstName
- LastName
- DateOfBirth
- Gender
- Email

(

● Phone

Code:

```
mysql> CREATE TABLE Student (
    ->     StudentID INT AUTO_INCREMENT PRIMARY KEY,
    ->     FirstName VARCHAR(50),
    ->     LastName VARCHAR(50),
    ->     DateOfBirth DATE,
    ->     Gender ENUM('Male', 'Female', 'Other'),
    ->     Email VARCHAR(100),
    ->     Phone VARCHAR(15)
    -> );
Query OK, 0 rows affected (0.06 sec)
```

Output:

```
mysql> DESCRIBE Student;
+-------------+-------------------------------+------+-----+---------+----------------+
| Field       | Type                          | Null | Key | Default | Extra          |
+-------------+-------------------------------+------+-----+---------+----------------+
| StudentID   | int                           | NO   | PRI | NULL    | auto_increment |
| FirstName   | varchar(50)                   | YES  |     | NULL    |                |
| LastName    | varchar(50)                   | YES  |     | NULL    |                |
| DateOfBirth | date                          | YES  |     | NULL    |                |
| Gender      | enum('Male','Female','Other') | YES  |     | NULL    |                |
| Email       | varchar(100)                  | YES  |     | NULL    |                |
| Phone       | varchar(15)                   | YES  |     | NULL    |                |
+-------------+-------------------------------+------+-----+---------+----------------+
7 rows in set (0.00 sec)
```

Create a table with name Course with attributes:

- CourseID (Primary Key)
- CourseTitle
- Credits

Code:

```
mysql> CREATE TABLE Course (
    ->     CourseID INT AUTO_INCREMENT PRIMARY KEY,
    ->     CourseTitle VARCHAR(100),
    ->     Credits INT
    -> );
Query OK, 0 rows affected (0.05 sec)
```

Output:

```
mysql> describe course;
+-------------+--------------+------+-----+---------+----------------+
| Field       | Type         | Null | Key | Default | Extra          |
+-------------+--------------+------+-----+---------+----------------+
| CourseID    | int          | NO   | PRI | NULL    | auto_increment |
| CourseTitle | varchar(100) | YES  |     | NULL    |                |
| Credits     | int          | YES  |     | NULL    |                |
+-------------+--------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)
```

Create a table with named Instructor with attributes:

- InstructorID (Primary Key)
- FirstName
- LastName
- Email

Code:

```
mysql> CREATE TABLE Instructor (
    ->     InstructorID INT AUTO_INCREMENT PRIMARY KEY,
    ->     FirstName VARCHAR(50),
    ->     LastName VARCHAR(50),
    ->     Email VARCHAR(100)
    -> );
Query OK, 0 rows affected (0.04 sec)
```

Output:

```
mysql> DESCRIBE Instructor;
+--------------+--------------+------+-----+---------+----------------+
| Field        | Type         | Null | Key | Default | Extra          |
+--------------+--------------+------+-----+---------+----------------+
| InstructorID | int          | NO   | PRI | NULL    | auto_increment |
| FirstName    | varchar(50)  | YES  |     | NULL    |                |
| LastName     | varchar(50)  | YES  |     | NULL    |                |
| Email        | varchar(100) | YES  |     | NULL    |                |
+--------------+--------------+------+-----+---------+----------------+
4 rows in set (0.00 sec)
```

Create a table with named Enrollment with attributes:

- EnrollmentID (Primary Key)
- EnrollmentDate
- StudentID(Foreign key)
- CourseID(Foreign Key)
- InstructorID(Foreign key)

Code:

```
mysql> CREATE TABLE Enrollment (
    ->     EnrollmentID INT AUTO_INCREMENT PRIMARY KEY,
    ->     EnrollmentDate DATE,
    ->     StudentID INT,
    ->     CourseID INT,
    ->     InstructorID INT,
    ->     FOREIGN KEY (StudentID) REFERENCES Student(StudentID),
    ->     FOREIGN KEY (CourseID) REFERENCES Course(CourseID),
    ->     FOREIGN KEY (InstructorID) REFERENCES Instructor(InstructorID)
    -> );
Query OK, 0 rows affected (0.12 sec)
```

Output:

```
mysql> DESCRIBE Enrollment;
+----------------+------+------+-----+---------+----------------+
| Field          | Type | Null | Key | Default | Extra          |
+----------------+------+------+-----+---------+----------------+
| EnrollmentID   | int  | NO   | PRI | NULL    | auto_increment |
| EnrollmentDate | date | YES  |     | NULL    |                |
| StudentID      | int  | YES  | MUL | NULL    |                |
| CourseID       | int  | YES  | MUL | NULL    |                |
| InstructorID   | int  | YES  | MUL | NULL    |                |
+----------------+------+------+-----+---------+----------------+
5 rows in set (0.00 sec)
```

Create a table with named Score with attributes:

- ScoreID (Primary Key)
- CourseID (Foreign key)
- StudentID (Foreign Key)
- DateOfExam
- CreditObtained

Code:

```
mysql> CREATE TABLE Score (
    ->     ScoreID INT AUTO_INCREMENT PRIMARY KEY,
    ->     CourseID INT,
    ->     StudentID INT,
    ->     DateOfExam DATE,
    ->     CreditObtained INT,
    ->     FOREIGN KEY (CourseID) REFERENCES Course(CourseID),
    ->     FOREIGN KEY (StudentID) REFERENCES Student(StudentID)
    -> );
Query OK, 0 rows affected (0.18 sec)
```

Output:

```
mysql> DESCRIBE Score;
+----------------+------+------+-----+---------+----------------+
| Field          | Type | Null | Key | Default | Extra          |
+----------------+------+------+-----+---------+----------------+
| ScoreID        | int  | NO   | PRI | NULL    | auto_increment |
| CourseID       | int  | YES  | MUL | NULL    |                |
| StudentID      | int  | YES  | MUL | NULL    |                |
| DateOfExam     | date | YES  |     | NULL    |                |
| CreditObtained | int  | YES  |     | NULL    |                |
+----------------+------+------+-----+---------+----------------+
5 rows in set (0.00 sec)
```

Create a table with named Feedback with attributes:

- FeedbackID (Primary Key)
- StudentID (Foreign key)
- Date
- InstructorName
- Feedback

Code:

```
mysql> CREATE TABLE Feedback (
    ->     FeedbackID INT AUTO_INCREMENT PRIMARY KEY,
    ->     StudentID INT,
    ->     Date DATE,
    ->     InstructorName VARCHAR(100),
    ->     Feedback TEXT,
    ->     FOREIGN KEY (StudentID) REFERENCES Student(StudentID)
    -> );
Query OK, 0 rows affected (0.14 sec)
```

Output:

```
mysql> DESCRIBE Feedback;
+----------------+--------------+------+-----+---------+----------------+
| Field          | Type         | Null | Key | Default | Extra          |
+----------------+--------------+------+-----+---------+----------------+
| FeedbackID     | int          | NO   | PRI | NULL    | auto_increment |
| StudentID      | int          | YES  | MUL | NULL    |                |
| Date           | date         | YES  |     | NULL    |                |
| InstructorName | varchar(100) | YES  |     | NULL    |                |
| Feedback       | text         | YES  |     | NULL    |                |
+----------------+--------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)
```