#### **ASSIGNMENT 10 MySQL**

## Create three tables using MySQL

#### (1) Students

```
mysql> desc students;
                                           | Null | Key | Default | Extra
 Field
                  | Type
 student_id
                    int
                                             NO
                                                    PRI |
                                                          NULL
                                                                    auto_increment
 first_name
                    varchar(50)
                                                          NULL
 last_name
                    varchar(50)
                                             YES
                                                          NULL
                    varchar(100)
 email
                                             YES
                                                          NULL
 birthdate
                                             YES
                                                          NULL
                    date
                    enum('Male', 'Female')
 gender
                                             YES
                                                          NULL
 enrollment_date | date
                                             YES
                                                          NULL
7 rows in set (0.02 sec)
```

### (2) courses

```
mysql> desc courses;
 Field
                                     Null | Key | Default | Extra
                     Type
                                     NO
course_id
                      int
                                          PRI | NULL
                                                            auto_increment
 course_name
                      varchar(100)
                                     YES
                                                  NULL
                                     YES
                                                  NULL
 course_description | text
 start_date
                                     YES
                                                  NULL
                      date
 end_date
                      date
                                     YES
                                                  NULL
5 rows in set (0.00 sec)
```

#### (3) enrollments

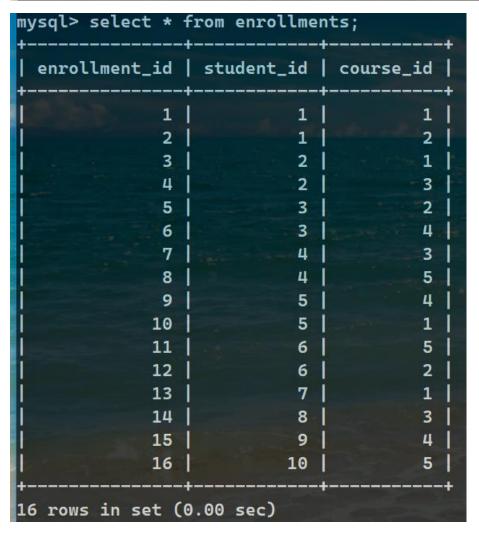
```
mysql> desc enrollments;
 Field
                | Type | Null | Key | Default |
 enrollment_id | int
                        NO
                                PRI
                                      NULL
                                                auto_increment
 student_id
                 int
                         YES
                              MUL
                                      NULL
                       YES
 course_id
                                MUL
3 rows in set (0.00 sec)
```

# Add some data in all tables

# For example:

student_id	first_name	last_name	email	birthdate	gender	enrollment_date
1	Aarav	Sharma	aarav.sharma@example.com	2003-01-15	Male	2024-01-01
2	Aditi	Mehta	aditi.mehta@example.com	2002-05-22	Female	2024-01-01
3	Ishaan	Singh	ishaan.singh@example.com	2004-02-14	Male	2024-01-01
4	Riya	Patel	riya.patel@example.com	2001-11-30	Female	2024-01-01
5	Kavya	Reddy	kavya.reddy@example.com	2003-07-07	Female	2024-01-01
6	Vivaan	Nair	vivaan.nair@example.com	2002-03-20	Male	2024-01-01
7	Ananya	Ghosh	ananya.ghosh@example.com	2004-05-25	Female	2024-01-01
8	Arjun	Kumar	arjun.kumar@example.com	2003-10-10	Male	2024-01-01
9	Saanvi	Joshi	saanvi.joshi@example.com	2004-08-18	Female	2024-01-01
10	Dev	Bose	dev.bose@example.com	2001-12-12	Male	2024-01-01

	ysql> select	sql> select * from courses;							
	course_id	course_name	course_description	start_date	end_date				
1	1	Database Systems	Introduction to Database Systems and SQL.	   2024-02-01	2024-05-01				
ı	2	Web Development	Learn HTML, CSS, JavaScript, and basic web development techniques.	2024-02-01	2024-05-01				
	3	Data Structures	Learn about various data structures and their applications.	2024-02-01	2024-05-01				
	4	Algorithms	Introduction to algorithms and problem-solving techniques.	2024-02-01	2024-05-01				
	5	Computer Networks	Overview of computer networking principles and practices.	2024-02-01	2024-05-01				
ŀ			·	+	++				
	rows in set	(0.00 sec)							



## Question 1)

Retrieve a list of all students along with the courses they are enrolled in, including students who are not enrolled in any course.

## Question 2)

Find the number of courses each student is enrolled in, and include students who are not enrolled in any course.

## Question 3)

List all courses along with the number of students enrolled in each course. Include courses that currently have no students enrolled.

## Question 4)

Find the names of students who are enrolled in both 'Database Systems' and 'Web Development' courses.

# Question 5)

Retrieve the first name, last name, and email of students who are enrolled in exactly two courses.