

SQL MODULE

LAB - 5

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Questions

Lab 1: Use the Student management system Database and table from our previous lab and write a sql query to achieve the below scenario.

Assume you are managing a university database that tracks student enrollments in various courses. You have two tables, "Student" and "Enrollment". The goal is to retrieve information about each student's ID, first name, last name, and their enrollment details, including the enrollment ID and the associated course ID.

Hint: Use inner join to retrieve data.

Submission:

Create an SQL script file containing your solutions for all tasks (queries). Name the file "lab_assignment1.sql" Provide comments above each query to indicate the query's purpose.

ChatGPT Exercise

Using ChatGPT generates SQL queries of the below problem .

Scenario 1: Imagine you have tables for students and courses. Use an inner join to generate a list of all possible student-course combinations, displaying the student name and course name.

We have a "Student" table with the following a

columns: StudentId, FirstName, LastName and "Course" table with the following a

columns: CourseId, CourseName and Enrollment table with the following a

columns:EnrollmentID,StudentID(Foreign key),CourseID(Foreign Key).You want to

use inner join to generate a list of all possible student-course combinations.Generate

the ChatGPT prompt for the above scenario.

ASSINGMENT - 1 & 2



```
mysql> CREATE TABLE Enrollment (
  -> EnrollmentId INT NOT NULL PRIMARY KEY,
  -> StudentId INT NOT NULL,
  -> CourseId INT NOT NULL,
  -> FOREIGN KEY (StudentId) REFERENCES Student(StuId)
  -> );
Query OK, 0 rows affected (1.02 sec)

mysql> INSERT INTO Student (StudentId, FirstName, LastName, DOB, Gender, Email, Phone) VALUES
  -> (6, 'Smriti', 'Mandhana', '1996-07-18', 'F', 'smriti
@mandhana.com', '1234567890'),
  -> (7, 'Harmanpreet', 'Kaur', '1995-03-08', 'F', 'harma
n@kaur.com', '2345678901');
ERROR 1054 (42S22): Unknown column 'StudentId' in 'field list'
mysql> INSERT INTO Student (StuId, FirstName, LastName, DOB
, Gender, Email, Phone) VALUES
  -> (6, 'Smriti', 'Mandhana', '1996-07-18', 'F', 'smriti@mandhana.com', '1234567890'),
  -> (7, 'Harmanpreet', 'Kaur', '1995-03-08', 'F', 'harman@kaur.com', '2345678901');
ERROR 1054 (42S22): Unknown column 'Phone' in 'field list'
mysql> INSERT INTO Student (StuId, FirstName, LastName, DOB, Gender, Email, Ph) VALUES
  -> (6, 'Smriti', 'Mandhana', '1996-07-18', 'F', 'smriti@mandhana.com', '1234567890'),
  -> (7, 'Harmanpreet', 'Kaur', '1995-03-08', 'F', 'harman@kaur.com', '2345678901');
Query OK, 2 rows affected (0.09 sec)
Records: 2 Duplicates: 0 Warnings: 0
```



```
mysql> INSERT INTO Enrollment (EnrollmentId, StudentId, CourseId) VALUES
  -> (1, 1, 101),
  -> (2, 2, 102),
  -> (3, 3, 103),
  -> (4, 4, 104),
  -> (5, 1, 105);
Query OK, 5 rows affected (0.08 sec)
Records: 5 Duplicates: 0 Warnings: 0

mysql> SELECT
  -> s.StudentId,
  -> s.FirstName, ^C
mysql> SELECT
  -> s.StuId,
  -> ^C
mysql> SELECT
  -> s.StuId,
  -> s.FirstName,
  -> s.LastName,
  -> e.EnrollmentId,
  -> e.CourseId
  -> FROM
  -> Student s
  -> INNER JOIN
  -> Enrollment e ON s.StuId = e.StudentId;
+-----+-----+-----+-----+-----+
| StuId | FirstName | LastName | EnrollmentId | CourseId |
+-----+-----+-----+-----+-----+
| 1 | Rohit | Sharma | 1 | 101 |
| 2 | virat | kohli | 2 | 102 |
| 3 | mahi | dhoni | 3 | 103 |
| 4 | yuvraj | singh | 4 | 104 |
| 1 | Rohit | Sharma | 5 | 105 |
+-----+-----+-----+-----+-----+
```



```
mysql> SELECT
  -> s.StuId,
  -> s.FirstName,
  -> s.LastName,
  -> e.EnrollmentId,
  -> e.CourseId
  -> FROM
  -> Student s
  -> INNER JOIN
  -> Enrollment e ON s.StuId = e.StudentId;
```

| StuId | FirstName | LastName | EnrollmentId | CourseId |
|-------|-----------|----------|--------------|----------|
| 1 | Rohit | Sharma | 1 | 101 |
| 2 | virat | kohli | 2 | 102 |
| 3 | mahi | dhoni | 3 | 103 |
| 4 | yuvraj | singh | 4 | 104 |
| 1 | Rohit | Sharma | 5 | 105 |

5 rows in set (0.00 sec)



```
mysql> CREATE TABLE Course (
  -> CourseId INT NOT NULL PRIMARY KEY,
  -> CourseName VARCHAR(100) NOT NULL
  -> );
Query OK, 0 rows affected (0.34 sec)

mysql> INSERT INTO Course (CourseId, CourseName) VALUES
  -> (101, 'Mathematics'),
  -> (102, 'Physics'),
  -> (103, 'Chemistry'),
  -> (104, 'Biology'),
  -> (105, 'Computer Science');
Query OK, 5 rows affected (0.16 sec)
Records: 5 Duplicates: 0 Warnings: 0

mysql> SELECT
```



```
mysql> SELECT
  -> s.FirstName,
  -> s.LastName,
  -> c.CourseName
  -> FROM
  -> Student s
  -> INNER JOIN
  -> Enrollment e ON s.StuId = e.StudentId
  -> INNER JOIN
  -> Course c ON e.CourseId = c.CourseId;
```

| FirstName | LastName | CourseName |
|-----------|----------|------------------|
| Rohit | Sharma | Mathematics |
| virat | kohli | Physics |
| mahi | dhoni | Chemistry |
| yuvraj | singh | Biology |
| Rohit | Sharma | Computer Science |

5 rows in set (0.00 sec)