SQL LAB -8

(Table Aliases,Joins,Cross Join)

Submitted by: Seelam Vijayalakshmi

AF ID : AF0366867

Batch ID : ANP-C7374

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.

```
mysql> use studentmanagementsystem;
Database changed

mysql> SELECT
    ->     Student.StudentId,
    ->     Student.FirstName,
    ->     Student.LastName,
    ->     Enrollment.EnrollmentID,
    ->     Enrollment.CourseID
    -> FROM
    ->     Student
    -> INNER JOIN
    ->     Enrollment
    -> ON
    ->     Student.StudentId = Enrollment.StudentID;
```

StudentId	FirstName	LastName	EnrollmentID	CourseID
102	Ishitha	Iyer	402	202
103	Raman	Bhalla	403	203
104	Ruhi	Khan	404	204
105	Vidyuth	Sahay	405	205

4 rows in set (0.03 sec)

```
mysql> SELECT
    ->      Student.FirstName,
    ->      Student.LastName,
    ->      Course.CourseTitle
    -> FROM
    ->      Student
    -> INNER JOIN
    ->      Enrollment
    -> ON
    ->      Student.StudentId = Enrollment.StudentID
    -> INNER JOIN
    ->      Course
    -> ON
    ->      Enrollment.CourseID = Course.CourseID;
```

```
+-------------+-------------+------------------+
| FirstName   | LastName    | CourseTitle      |
+-------------+-------------+------------------+
| Ishitha     | Iyer        | Physics          |
| Raman       | Bhalla      | Chemistry        |
| Ruhi        | Khan        | Biology          |
| Vidyuth     | Sahay       | Computer Science |
+-------------+-------------+------------------+
4 rows in set (0.04 sec)
```

For getting the total query in a single table

```
mysql> SELECT
    ->      Student.StudentId,
    ->      Student.FirstName,
    ->      Student.LastName,
    ->      Enrollment.EnrollmentID,
    ->      Enrollment.CourseID,
    ->      Course.CourseTitle
    -> FROM
    ->      Student
    -> INNER JOIN
    ->      Enrollment
    -> ON
    ->      Student.StudentId = Enrollment.StudentID
    -> INNER JOIN
    ->      Course
    -> ON
    ->      Enrollment.CourseID = Course.CourseID;
```

```
+-----------+-----------+----------+--------------+----------+------------------+
| StudentId | FirstName | LastName | EnrollmentID | CourseID | CourseTitle      |
+-----------+-----------+----------+--------------+----------+------------------+
|       102 | Ishitha   | Iyer     |          402 |      202 | Physics          |
|       103 | Raman     | Bhalla   |          403 |      203 | Chemistry        |
|       104 | Ruhi      | Khan     |          404 |      204 | Biology          |
|       105 | Vidyuth   | Sahay    |          405 |      205 | Computer Science |
+-----------+-----------+----------+--------------+----------+------------------+
4 rows in set (0.00 sec)
```

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.

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 columns: StudentId, FirstName, LastName, and a "Course" table with the following columns: CourseId, CourseName, and an "Enrollment" table with the following columns: EnrollmentID, StudentID (Foreign key), CourseID (Foreign Key). You want to use inner join to generate a list of all possible student-course combinations.

SELECT

   Student.FirstName,

   Student.LastName,

   Course.CourseName

FROM

   Student

INNER JOIN

   Enrollment

ON

   Student.StudentId = Enrollment.StudentID

INNER JOIN

Course

ON

Enrollment.CourseID = Course.CourseID;

Enrollment.CourseID = Course.CourseID;