

LAB ON JOINS

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1.perform and demonstrate the cross-join between the student and course table.

```
mysql> INSERT INTO Course (CourseTitle, Credits)
-> VALUES ('Mathematics', 3),
->         ('History', 4),
->         ('Science', 3);
Query OK, 3 rows affected (0.01 sec)
Records: 3  Duplicates: 0  Warnings: 0

mysql> SELECT s.StudentID, s.FirstName, s.LastName, c.CourseID, c.CourseTitle
-> FROM Student s
-> CROSS JOIN Course c;
```

StudentID	FirstName	LastName	CourseID	CourseTitle
3	Chennu	SaiLakshmi	1	Mathematics
2	Chennu	Revathi	1	Mathematics
1	Chennu	Sudha	1	Mathematics
3	Chennu	SaiLakshmi	2	History
2	Chennu	Revathi	2	History
1	Chennu	Sudha	2	History
3	Chennu	SaiLakshmi	3	Science
2	Chennu	Revathi	3	Science
1	Chennu	Sudha	3	Science

```
9 rows in set (0.01 sec)
```

2. perform and demonstrate the inner join on student and score table based on common id

```
mysql> INSERT INTO Score (ScoreID, CourseID, StudentID, DateOfExam, CreditObtained)
-> VALUES
-> (1, 1, 1, '2023-01-15', 85.5),
-> (2, 2, 2, '2023-01-20', 78.0),
-> (3, 3, 1, '2023-02-05', 92.5),
-> (4, 1, 3, '2023-02-10', 88.0);
Query OK, 4 rows affected (0.01 sec)
Records: 4 Duplicates: 0 Warnings: 0

mysql> SELECT s.StudentID, s.FirstName, s.LastName, sc.CourseID, sc.DateOfExam, sc.CreditObtained
-> FROM Student s
-> INNER JOIN Score sc ON s.StudentID = sc.StudentID;
```

StudentID	FirstName	LastName	CourseID	DateOfExam	CreditObtained
1	Chennu	Sudha	1	2023-01-15	85.50
1	Chennu	Sudha	3	2023-02-05	92.50
2	Chennu	Revathi	2	2023-01-20	78.00
3	Chennu	SaiLakshmi	1	2023-02-10	88.00

4 rows in set (0.00 sec)

3. perform and demonstrate the left join instructor and student based on common id

```
mysql> INSERT INTO Instructor (InstructorID, FirstName, LastName, Email)
-> VALUES
-> (1, 'Chennu', 'Sudha', 'chennusudha2001@gmail.com'),
-> (2, 'Jane', 'Smith', 'jane.smith@gmail.com'),
-> (3, 'sabineni', 'Sindhu', 'sindhu34@gmail.com');
Query OK, 3 rows affected (0.01 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT i.InstructorID, i.FirstName AS InstructorFirstName, i.LastName AS InstructorLastName,
-> s.StudentID, s.FirstName AS StudentFirstName, s.LastName AS StudentLastName
-> FROM Instructor i
-> LEFT JOIN Student s ON i.InstructorID = s.StudentID;
```

InstructorID	InstructorFirstName	InstructorLastName	StudentID	StudentFirstName	StudentLastName
1	Chennu	Sudha	1	Chennu	Sudha
2	Jane	Smith	2	Chennu	Revathi
3	sabineni	Sindhu	3	Chennu	SaiLakshmi

3 rows in set (0.00 sec)