# LAB 1

# Q1) Now create tables and insert at least 5 campuses in Campus\_degree, 5 student in each campus and 10 course marks for each student.

**QUERY FOR CREATING TABLE:**

CREATE TABLE Campus\_degree ( Campus\_id NUMBER PRIMARY KEY, Campus VARCHAR2(50),

Degree VARCHAR2(50)

);

**QUERY FOR INSERTION IN TABLE:**

INSERT INTO Campus\_degree (Campus\_id, Campus, Degree) VALUES (1, 'Karachi Campus', 'Computer Science');

INSERT INTO Campus\_degree (Campus\_id, Campus, Degree) VALUES (2, 'Lahore Campus', 'Electrical Engineering');

INSERT INTO Campus\_degree (Campus\_id, Campus, Degree) VALUES (3, 'Islamabad Campus', 'Business

Administration');

INSERT INTO Campus\_degree (Campus\_id, Campus, Degree) VALUES (4, 'Faisalabad Campus', 'Mechanical

Engineering');

CREATE TABLE Student\_Performance ( Sid NUMBER,

Course\_code VARCHAR2(10), Marks NUMBER,

PRIMARY KEY (Sid, Course\_code),

FOREIGN KEY (Sid) REFERENCES Campus\_degree (Campus\_id)

);

CREATE TABLE Student\_Campus ( Sid NUMBER PRIMARY KEY,

Campus\_id NUMBER,

FOREIGN KEY (Sid) REFERENCES Campus\_degree (Campus\_id),

FOREIGN KEY (Campus\_id) REFERENCES Campus\_degree (Campus\_id) );

INSERT INTO Student\_Campus (Sid, Campus\_id) VALUES (1, 1);

INSERT INTO Student\_Campus (Sid, Campus\_id) VALUES (2, 2);

INSERT INTO Student\_Campus (Sid, Campus\_id) VALUES (3, 3);

INSERT INTO Student\_Campus (Sid, Campus\_id) VALUES (4, 4);

INSERT INTO Student\_Campus (Sid, Campus\_id) VALUES (5, 5);

INSERT INTO Student\_Performance (Sid, Course\_code, Marks) VALUES (1, 'CS101', 90);

INSERT INTO Student\_Performance (Sid, Course\_code, Marks) VALUES (2, 'EE101', 85);

INSERT INTO Student\_Performance (Sid, Course\_code, Marks) VALUES (3, 'BA201', 78);

INSERT INTO Student\_Performance (Sid, Course\_code, Marks) VALUES (4, 'ME101', 92);

INSERT INTO Student\_Performance (Sid, Course\_code, Marks) VALUES (5, 'MED101', 88);

**Q2) Perform equijoin, outer join on above table**

**EQUIJOIN**

SELECT Student\_Campus.Sid, Campus\_degree.Campus, Campus\_degree.Degree FROM Student\_Campus

JOIN Campus\_degree ON Student\_Campus.Campus\_id = Campus\_degree.Campus\_id;

# LEFT JOIN

SELECT Student\_Campus.Sid, Campus\_degree.Campus, Campus\_degree.Degree FROM Student\_Campus

LEFT JOIN Campus\_degree ON Student\_Campus.Campus\_id = Campus\_degree.Campus\_id;

# RIGHT OUTER JOIN

SELECT Student\_Campus.Sid, Campus\_degree.Campus, Campus\_degree.Degree FROM Student\_Campus

RIGHT JOIN Campus\_degree ON Student\_Campus.Campus\_id = Campus\_degree.Campus\_id;

**Q3) Perform group by clause using Student\_Performance**

# QUERY:

SELECT Course\_code, AVG(Marks) AS AverageMarks FROM Student\_Performance

GROUP BY Course\_code;