## RDBMS AND SQL

**- FOREIGN KEY --**

**# Create a table Departments -**

CREATE TABLE Departments (

DepartmentID INT PRIMARY KEY,

DepartmentName NVARCHAR(50) NOT NULL

);

**# Create a table Employees with foreign key -**

CREATE TABLE Employees (

EmployeeID INT PRIMARY KEY,

FirstName NVARCHAR(50) NOT NULL,

LastName NVARCHAR(50) NOT NULL,

Email NVARCHAR(50) NOT NULL,

DepartmentID INT NOT NULL,

Salary DECIMAL(10, 2) NOT NULL,

FOREIGN KEY (DepartmentID) REFERENCES Departments(DepartmentID)

);

**# Inserting data into Departments table -**

INSERT INTO Departments (DepartmentID, DepartmentName) VALUES

(1, 'Human Resources'),

(2, 'Information Technology'),

(3, 'Finance'),

(4, 'Marketing');

**# Inserting data into Employees table -**

INSERT INTO Employees (EmployeeID, FirstName, LastName, Email, DepartmentID, Salary) VALUES

(1, 'John', 'Doe', 'john.doe@example.com', 1, 50000.00),

(2, 'Jane', 'Smith', 'jane.smith@example.com', 2, 60000.00),

(3, 'Sam', 'Brown', 'sam.brown@example.com', 3, 55000.00),

(4, 'Sara', 'Johnson', 'sara.johnson@example.com', 4, 45000.00),

(5, 'David', 'Wilson', 'david.wilson@example.com', 2, 70000.00);

**# INNER JOIN -**

SELECT e.FirstName, e.LastName, d.DepartmentName, e.Salary

FROM Employees e

JOIN Departments d ON e.DepartmentId = d.DepartmentId

WHERE d.DepartmentName = 'Information Technology'

**# LEFT JOIN -**

SELECT e.FirstName, e.LastName, d.DepartmentName, e.Salary

FROM Employees e

LEFT JOIN Departments d ON e.DepartmentId = d.DepartmentId