

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
```