Employee Management System SQL Exercises

Exercise 1: Create a Stored Procedure

Goal: Create a stored procedure to retrieve employee details by department.
Steps:

```sql
CREATE TABLE Departments (
    DepartmentID INT PRIMARY KEY,
    DepartmentName VARCHAR(100)
);

CREATE TABLE Employees (
    EmployeeID INT IDENTITY(1,1) PRIMARY KEY,
    FirstName VARCHAR(50),
    LastName VARCHAR(50),
    DepartmentID INT FOREIGN KEY REFERENCES Departments(DepartmentID),
    Salary DECIMAL(10,2),
    JoinDate DATE
);

-- Insert sample department data
INSERT INTO Departments (DepartmentID, DepartmentName) VALUES
(1, 'HR'),
(2, 'Finance'),
(3, 'IT'),
(4, 'Marketing');
```

1. Define the stored procedure with a parameter for DepartmentID.

```sql
DROP PROCEDURE sp_GetEmployeesByDepartment;
CREATE PROCEDURE sp_GetEmployeesByDepartment
    @DepartmentID INT
AS
BEGIN
    SELECT
        EmployeeID,
        FirstName,
        LastName,
        DepartmentID,
        Salary,
        JoinDate
    FROM Employees
    WHERE DepartmentID = @DepartmentID;
END;
```

2. Write the SQL query to select employee details based on the DepartmentID

```sql
EXEC sp_GetEmployeesByDepartment @DepartmentID = 4;
```


	EmployeeID	FirstName	LastName	DepartmentID	Salary	JoinDate
1	4	Souptik	Karan	4	7500.00	2025-06-29

3. Create a stored procedure named `sp_InsertEmployee` with the following code:
CREATE PROCEDURE sp_InsertEmployee
@FirstName VARCHAR(50),
@LastName VARCHAR(50),
@DepartmentID INT,
@Salary DECIMAL(10,2),
@JoinDate DATE
AS
BEGIN
INSERT INTO Employees (FirstName, LastName, DepartmentID, Salary, JoinDate)
VALUES (@FirstName, @LastName, @DepartmentID, @Salary, @JoinDate);
END;

```sql
CREATE PROCEDURE sp_InsertEmployee
    @FirstName VARCHAR(50),
    @LastName VARCHAR(50),
    @DepartmentID INT,
    @Salary DECIMAL(10,2),
    @JoinDate DATE
AS
BEGIN
    INSERT INTO Employees (FirstName, LastName, DepartmentID, Salary,
JoinDate)
    VALUES (@FirstName, @LastName, @DepartmentID, @Salary, @JoinDate);
END;

-- 4. Insert an employee using the new procedure
EXEC sp_InsertEmployee
    @FirstName = 'Souptik',
    @LastName = 'Karan',
    @DepartmentID = 4,
    @Salary = 7500.00,
    @JoinDate = '2025-06-29';
```