**WEEK 2\_ Create a Stored Procedure**

Exercise 1: Create a Stored Procedure Goal:

Create a stored procedure to retrieve employee details by department.

Steps:

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

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

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;

-- Drop tables if exist (to start fresh)

IF OBJECT\_ID('Employees', 'U') IS NOT NULL DROP TABLE Employees;

IF OBJECT\_ID('Departments', 'U') IS NOT NULL DROP TABLE Departments;

GO

-- Create Departments table

CREATE TABLE Departments (

DepartmentID INT PRIMARY KEY,

DepartmentName VARCHAR(100)

);

GO

-- Create Employees table

CREATE TABLE Employees (

EmployeeID INT IDENTITY(1,1) PRIMARY KEY, -- Identity for auto increment

FirstName VARCHAR(50),

LastName VARCHAR(50),

DepartmentID INT FOREIGN KEY REFERENCES Departments(DepartmentID),

Salary DECIMAL(10,2),

JoinDate DATE

);

GO

-- Insert sample data into Departments

INSERT INTO Departments (DepartmentID, DepartmentName) VALUES

(1, 'HR'),

(2, 'Finance'),

(3, 'IT'),

(4, 'Marketing');

GO

-- Insert sample data into Employees

INSERT INTO Employees (FirstName, LastName, DepartmentID, Salary, JoinDate) VALUES

('John', 'Doe', 1, 5000.00, '2020-01-15'),

('Jane', 'Smith', 2, 6000.00, '2019-03-22'),

('Michael', 'Johnson', 3, 7000.00, '2018-07-30'),

('Emily', 'Davis', 4, 5500.00, '2021-11-05');

GO

-- Drop procedure if exists, then create sp\_GetEmployeesByDepartment

IF OBJECT\_ID('sp\_GetEmployeesByDepartment', 'P') IS NOT NULL

DROP PROCEDURE sp\_GetEmployeesByDepartment;

GO

CREATE PROCEDURE sp\_GetEmployeesByDepartment

@DeptID INT

AS

BEGIN

SELECT

EmployeeID,

FirstName,

LastName,

DepartmentID,

Salary,

JoinDate

FROM Employees

WHERE DepartmentID = @DeptID;

END;

GO

-- Drop procedure if exists, then create sp\_InsertEmployee

IF OBJECT\_ID('sp\_InsertEmployee', 'P') IS NOT NULL

DROP PROCEDURE sp\_InsertEmployee;

GO

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;

GO

-- Test inserting new employee

EXEC sp\_InsertEmployee

@FirstName = 'Alice',

@LastName = 'Taylor',

@DepartmentID = 3,

@Salary = 6200.00,

@JoinDate = '2022-10-10';

GO

-- Test fetching employees by department 3

EXEC sp\_GetEmployeesByDepartment @DeptID = 3;

GO

OUTPUT:

