**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;

**SQL Queries/Outputs**

1> CREATE TABLE Departments (

2> DepartmentID INT PRIMARY KEY,

3> DepartmentName VARCHAR(100)

4> );

5> go

1> CREATE TABLE Employees (

2> EmployeeID INT PRIMARY KEY,

3> FirstName VARCHAR(50),

4> LastName VARCHAR(50),

5> DepartmentID INT FOREIGN KEY REFERENCES Departments(DepartmentID),

6> Salary DECIMAL(10,2),

7> JoinDate DATE

8> );

9> go

1> INSERT INTO Departments (DepartmentID, DepartmentName) VALUES

2> (1, 'HR'),

3> (2, 'Finance'),

4> (3, 'IT'),

5> (4, 'Marketing');

6> go

(4 rows affected)

1> INSERT INTO Employees (EmployeeID, FirstName, LastName, DepartmentID, Salary,

2> JoinDate) VALUES

3> (1, 'John', 'Doe', 1, 5000.00, '2020-01-15'),

4> (2, 'Jane', 'Smith', 2, 6000.00, '2019-03-22'),

5> (3, 'Michael', 'Johnson', 3, 7000.00, '2018-07-30'),

6> (4, 'Emily', 'Davis', 4, 5500.00, '2021-11-05');

7> go

(4 rows affected)

1> CREATE PROCEDURE sp\_InsertEmployee

2> @FirstName VARCHAR(50),

3> @LastName VARCHAR(50),

4> @DepartmentID INT,

5> @Salary DECIMAL(10,2),

6> @JoinDate DATE

7> AS

8> BEGIN

9> INSERT INTO Employees (FirstName, LastName, DepartmentID, Salary, JoinDate)

10> VALUES (@FirstName, @LastName, @DepartmentID, @Salary, @JoinDate);

11> END;

12> go

1> CREATE PROCEDURE sp\_GetEmployeesByDepartment

2> @DeptID INT

3> AS

4> BEGIN

5> SELECT

6> E.EmployeeID,

7> E.FirstName,

8> E.LastName,

9> E.Salary,

10> E.JoinDate,

11> D.DepartmentName

12> FROM

13> Employees E

14> INNER JOIN

15> Departments D ON E.DepartmentID = D.DepartmentID

16> WHERE

17> E.DepartmentID = @DeptID;

18> END;

19> go

1> EXEC sp\_GetEmployeesByDepartment @DeptID = 3;

2> go

EmployeeID FirstName LastName Salary JoinDate DepartmentName

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3 Michael Johnson 7000.00 2018-07-30 IT

(1 rows affected)

1>