**Exercise 1: Create a Stored Procedure**

**SQL**

-- Stored procedure to retrieve employee details by department

CREATE PROCEDURE sp\_GetEmployeesByDepartment

@DepartmentID INT

AS

BEGIN

SELECT

e.EmployeeID,

e.FirstName,

e.LastName,

d.DepartmentName,

e.Salary,

e.JoinDate

FROM Employees e

INNER JOIN Departments d ON e.DepartmentID = d.DepartmentID

WHERE e.DepartmentID = @DepartmentID

ORDER BY e.EmployeeID;

END;

-- Stored procedure to insert a new employee (as provided)

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;

-- Example usage of sp\_GetEmployeesByDepartment

EXEC sp\_GetEmployeesByDepartment @DepartmentID = 3;

-- Example usage of sp\_InsertEmployee

EXEC sp\_InsertEmployee

@FirstName = 'Sarah',

@LastName = 'Wilson',

@DepartmentID = 1,

@Salary = 6500.00,

@JoinDate = '2023-02-10';

**Output**

EmployeeID | FirstName | LastName | DepartmentName | Salary | JoinDate

3 | Michael | Johnson | IT | 7000.00 | 2018-07-30

**Exercise 4: Execute a Stored Procedure**

**SQL**

-- Execute the stored procedure for DepartmentID = 2 (Finance)

EXEC sp\_GetEmployeesByDepartment @DepartmentID = 2;

**Output**

EmployeeID | FirstName | LastName | DepartmentName | Salary | JoinDate

2 | Jane | Smith | Finance | 6000.00 | 2019-03-22

**Exercise 5: Return Data from a Stored Procedure**

**SQL**

-- Create stored procedure to return the count of employees in a department

CREATE PROCEDURE sp\_CountEmployeesByDepartment

@DepartmentID INT,

@EmployeeCount INT OUTPUT

AS

BEGIN

SELECT @EmployeeCount = COUNT(\*)

FROM Employees

WHERE DepartmentID = @DepartmentID;

END;

-- Example execution to test the stored procedure

DECLARE @Count INT;

EXEC sp\_CountEmployeesByDepartment @DepartmentID = 2, @EmployeeCount = @Count OUTPUT;

SELECT @Count AS TotalEmployees;

**Output**

TotalEmployees

1