**Exercise 1: Create a Stored Procedure**

CREATE TABLE Departments (

DepartmentID INT PRIMARY KEY,

DepartmentName VARCHAR(100)

);

CREATE TABLE Employees (

EmployeeID INT PRIMARY KEY,

FirstName VARCHAR(50),

LastName VARCHAR(50),

DepartmentID INT,

Salary DECIMAL(10,2),

JoinDate DATE,

FOREIGN KEY (DepartmentID) REFERENCES Departments(DepartmentID)

);

INSERT INTO Departments (DepartmentID, DepartmentName) VALUES

(1, 'HR'),

(2, 'Finance'),

(3, 'IT'),

(4, 'Marketing');

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

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

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

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

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

DROP PROCEDURE IF EXISTS sp\_GetEmployeesByDepartment;

DELIMITER //

CREATE PROCEDURE sp\_GetEmployeesByDepartment(IN dept\_id INT)

BEGIN

SELECT

EmployeeID,

FirstName,

LastName,

DepartmentID,

Salary,

JoinDate

FROM Employees

WHERE DepartmentID = dept\_id;

END //

DELIMITER ;

CALL sp\_GetEmployeesByDepartment(2);

DROP PROCEDURE IF EXISTS sp\_InsertEmployee;

DELIMITER //

CREATE PROCEDURE sp\_InsertEmployee(

IN FirstName VARCHAR(50),

IN LastName VARCHAR(50),

IN DepartmentID INT,

IN Salary DECIMAL(10,2),

IN JoinDate DATE

)

BEGIN

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

VALUES ((SELECT IFNULL(MAX(EmployeeID), 0) + 1 FROM Employees), FirstName, LastName, DepartmentID, Salary, JoinDate);

END //

DELIMITER ;

DROP TABLE IF EXISTS Employees;

CREATE TABLE Employees (

EmployeeID INT PRIMARY KEY AUTO\_INCREMENT,

FirstName VARCHAR(50),

LastName VARCHAR(50),

DepartmentID INT,

Salary DECIMAL(10,2),

JoinDate DATE,

FOREIGN KEY (DepartmentID) REFERENCES Departments(DepartmentID)

);

DROP PROCEDURE IF EXISTS sp\_InsertEmployee;

DELIMITER //

CREATE PROCEDURE sp\_InsertEmployee(

IN p\_FirstName VARCHAR(50),

IN p\_LastName VARCHAR(50),

IN p\_DepartmentID INT,

IN p\_Salary DECIMAL(10,2),

IN p\_JoinDate DATE

)

BEGIN

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

VALUES (p\_FirstName, p\_LastName, p\_DepartmentID, p\_Salary, p\_JoinDate);

END //

DELIMITER ;

CALL sp\_InsertEmployee('Alice', 'Taylor', 3, 7200.00, '2022-10-01');

