SUPERSET ID- 6363144

STORED PROCEDURE:-

**/\*============================================================**

**1) TABLES + SAMPLE DATA**

**============================================================\*/**

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

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

**GO**

**CREATE TABLE dbo.Departments (**

**DepartmentID INT PRIMARY KEY,**

**DepartmentName VARCHAR(100)**

**);**

**GO**

**CREATE TABLE dbo.Employees (**

**EmployeeID INT IDENTITY(1,1) PRIMARY KEY,**

**FirstName VARCHAR(50),**

**LastName VARCHAR(50),**

**DepartmentID INT FOREIGN KEY REFERENCES dbo.Departments(DepartmentID),**

**Salary DECIMAL(10,2),**

**JoinDate DATE**

**);**

**GO**

**INSERT dbo.Departments VALUES**

**(1,'HR'),(2,'Finance'),(3,'IT'),(4,'Marketing');**

**GO**

**INSERT dbo.Employees (FirstName,LastName,DepartmentID,Salary,JoinDate) VALUES**

**('John','Doe', 1,5000,'2020-01-15'),**

**('Jane','Smith', 2,6000,'2019-03-22'),**

**('Michael','Johnson',3,7000,'2018-07-30'),**

**('Emily','Davis', 4,5500,'2021-11-05');**

**GO**

**/\*============================================================**

**2) STORED PROCEDURES**

**============================================================\*/**

**-- 2‑1 Insert employee**

**IF OBJECT\_ID('dbo.sp\_InsertEmployee','P') IS NOT NULL DROP PROCEDURE dbo.sp\_InsertEmployee;**

**GO**

**CREATE PROCEDURE dbo.sp\_InsertEmployee**

**@FirstName VARCHAR(50),**

**@LastName VARCHAR(50),**

**@DepartmentID INT,**

**@Salary DECIMAL(10,2),**

**@JoinDate DATE**

**AS**

**BEGIN**

**INSERT dbo.Employees (FirstName,LastName,DepartmentID,Salary,JoinDate)**

**VALUES (@FirstName,@LastName,@DepartmentID,@Salary,@JoinDate);**

**END;**

**GO**

**-- 2‑2 Get employees by department (includes Salary)**

**IF OBJECT\_ID('dbo.sp\_GetEmployeesByDepartment','P') IS NOT NULL DROP PROCEDURE dbo.sp\_GetEmployeesByDepartment;**

**GO**

**CREATE PROCEDURE dbo.sp\_GetEmployeesByDepartment**

**@DepartmentID INT**

**AS**

**BEGIN**

**SELECT EmployeeID,FirstName,LastName,Salary**

**FROM dbo.Employees**

**WHERE DepartmentID=@DepartmentID;**

**END;**

**GO**

**-- 2‑3 Count employees in a department**

**IF OBJECT\_ID('dbo.sp\_CountEmployeesByDepartment','P') IS NOT NULL DROP PROCEDURE dbo.sp\_CountEmployeesByDepartment;**

**GO**

**CREATE PROCEDURE dbo.sp\_CountEmployeesByDepartment**

**@DepartmentID INT**

**AS**

**BEGIN**

**SELECT COUNT(\*) AS TotalEmployees**

**FROM dbo.Employees**

**WHERE DepartmentID=@DepartmentID;**

**END;**

**GO**

**-- 2‑4 Total salary by department (OUTPUT param)**

**IF OBJECT\_ID('dbo.sp\_TotalSalaryByDepartment','P') IS NOT NULL DROP PROCEDURE dbo.sp\_TotalSalaryByDepartment;**

**GO**

**CREATE PROCEDURE dbo.sp\_TotalSalaryByDepartment**

**@DepartmentID INT,**

**@TotalSalary DECIMAL(10,2) OUTPUT**

**AS**

**BEGIN**

**SELECT @TotalSalary = SUM(Salary)**

**FROM dbo.Employees**

**WHERE DepartmentID=@DepartmentID;**

**END;**

**GO**

**-- 2‑5 Update one employee’s salary**

**IF OBJECT\_ID('dbo.sp\_UpdateEmployeeSalary','P') IS NOT NULL DROP PROCEDURE dbo.sp\_UpdateEmployeeSalary;**

**GO**

**CREATE PROCEDURE dbo.sp\_UpdateEmployeeSalary**

**@EmployeeID INT,**

**@NewSalary DECIMAL(10,2)**

**AS**

**BEGIN**

**UPDATE dbo.Employees**

**SET Salary=@NewSalary**

**WHERE EmployeeID=@EmployeeID;**

**END;**

**GO**

**-- 2‑6 Give flat bonus to every employee in a department**

**IF OBJECT\_ID('dbo.sp\_GiveBonus','P') IS NOT NULL DROP PROCEDURE dbo.sp\_GiveBonus;**

**GO**

**CREATE PROCEDURE dbo.sp\_GiveBonus**

**@DepartmentID INT,**

**@BonusAmount DECIMAL(10,2)**

**AS**

**BEGIN**

**UPDATE dbo.Employees**

**SET Salary = Salary + @BonusAmount**

**WHERE DepartmentID=@DepartmentID;**

**END;**

**GO**

**-- 2‑7 Transactional salary update (rollback on fail)**

**IF OBJECT\_ID('dbo.sp\_TransactionalSalaryUpdate','P') IS NOT NULL DROP PROCEDURE dbo.sp\_TransactionalSalaryUpdate;**

**GO**

**CREATE PROCEDURE dbo.sp\_TransactionalSalaryUpdate**

**@EmployeeID INT,**

**@NewSalary DECIMAL(10,2)**

**AS**

**BEGIN**

**SET NOCOUNT ON;**

**BEGIN TRAN;**

**BEGIN TRY**

**UPDATE dbo.Employees**

**SET Salary=@NewSalary**

**WHERE EmployeeID=@EmployeeID;**

**COMMIT;**

**END TRY**

**BEGIN CATCH**

**ROLLBACK;**

**THROW;**

**END CATCH**

**END;**

**GO**

**/\*============================================================**

**3) SAMPLE EXECUTIONS**

**============================================================\*/**

**EXEC dbo.sp\_InsertEmployee 'Olivia','Brown',1,4800,'2022-05-10';**

**GO**

**EXEC dbo.sp\_GetEmployeesByDepartment 2;**

**GO**

**EXEC dbo.sp\_CountEmployeesByDepartment 3;**

**GO**

**DECLARE @TotSal DECIMAL(10,2);**

**EXEC dbo.sp\_TotalSalaryByDepartment 2, @TotSal OUTPUT;**

**PRINT 'Finance total salary = '+CAST(@TotSal AS VARCHAR);**

**GO**

**EXEC dbo.sp\_GiveBonus 4, 200;**

**GO**

**EXEC dbo.sp\_TransactionalSalaryUpdate 3, 7600;**

**GO**

