Exercise 2: Stored Procedures - PL/SQL Script

Exercise 3: Stored Procedures - PL/SQL Script

-- STEP 1: Drop Tables (if exist)

BEGIN

   EXECUTE IMMEDIATE 'DROP TABLE SavingAccounts\_SP';

EXCEPTION WHEN OTHERS THEN NULL;

END;

/

BEGIN

   EXECUTE IMMEDIATE 'DROP TABLE Employees\_SP';

EXCEPTION WHEN OTHERS THEN NULL;

END;

/

BEGIN

   EXECUTE IMMEDIATE 'DROP TABLE BankAccounts\_SP';

EXCEPTION WHEN OTHERS THEN NULL;

END;

/

-- STEP 2: Create Tables

CREATE TABLE SavingAccounts\_SP (

    AccountID NUMBER PRIMARY KEY,

    CustomerName VARCHAR2(50),

    Balance NUMBER

);

CREATE TABLE Employees\_SP (

    EmpID NUMBER PRIMARY KEY,

    Name VARCHAR2(50),

    Department VARCHAR2(30),

    Salary NUMBER

);

CREATE TABLE BankAccounts\_SP (

    AccountID NUMBER PRIMARY KEY,

    CustomerName VARCHAR2(50),

    Balance NUMBER

);

/

-- STEP 3: Insert Sample Data

INSERT INTO SavingAccounts\_SP VALUES (1, 'Ravi', 10000);

INSERT INTO SavingAccounts\_SP VALUES (2, 'Meena', 12000);

INSERT INTO Employees\_SP VALUES (101, 'John', 'HR', 50000);

INSERT INTO Employees\_SP VALUES (102, 'Mary', 'IT', 60000);

INSERT INTO Employees\_SP VALUES (103, 'Alex', 'IT', 55000);

INSERT INTO BankAccounts\_SP VALUES (201, 'Ravi', 15000);

INSERT INTO BankAccounts\_SP VALUES (202, 'Ravi', 5000);

COMMIT;

/

-- STEP 4: Procedure 1 - Process Monthly Interest

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest\_SP AS

BEGIN

    FOR rec IN (SELECT AccountID, Balance FROM SavingAccounts\_SP) LOOP

        UPDATE SavingAccounts\_SP

        SET Balance = Balance + (rec.Balance \* 0.01)

        WHERE AccountID = rec.AccountID;

    END LOOP;

    COMMIT;

END;

/

EXEC ProcessMonthlyInterest\_SP;

SELECT \* FROM SavingAccounts\_SP;

/

-- STEP 5: Procedure 2 - Update Employee Bonus

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus\_SP (

    p\_dept IN VARCHAR2,

    p\_bonus\_pct IN NUMBER

) AS

BEGIN

    UPDATE Employees\_SP

    SET Salary = Salary + (Salary \* p\_bonus\_pct / 100)

    WHERE Department = p\_dept;

    COMMIT;

END;

/

EXEC UpdateEmployeeBonus\_SP('IT', 10);

SELECT \* FROM Employees\_SP;

/

-- STEP 6: Procedure 3 - Transfer Funds

CREATE OR REPLACE PROCEDURE TransferFunds\_SP (

    p\_from\_id IN NUMBER,

    p\_to\_id IN NUMBER,

    p\_amount IN NUMBER

) AS

    v\_balance NUMBER;

BEGIN

    SELECT Balance INTO v\_balance FROM BankAccounts\_SP WHERE AccountID = p\_from\_id;

    IF v\_balance < p\_amount THEN

        RAISE\_APPLICATION\_ERROR(-20001, 'Insufficient balance in source account');

    END IF;

    UPDATE BankAccounts\_SP

    SET Balance = Balance - p\_amount

    WHERE AccountID = p\_from\_id;

    UPDATE BankAccounts\_SP

    SET Balance = Balance + p\_amount

    WHERE AccountID = p\_to\_id;

    COMMIT;

END;

/

EXEC TransferFunds\_SP(201, 202, 2000);

SELECT \* FROM BankAccounts\_SP;

/



