Exercise 3: Stored Procedures

**Scenario 1: The bank needs to process monthly interest for all savings accounts.**

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest IS

BEGIN

FOR account IN (SELECT \* FROM Accounts WHERE AccountType = 'Savings') LOOP

UPDATE Accounts

SET Balance = Balance \* 1.01

WHERE AccountID = account.AccountID;

END LOOP;

END ProcessMonthlyInterest;

**Scenario 2: The bank wants to implement a bonus scheme for employees based on their performance.**

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus (

p\_department IN VARCHAR2,

p\_bonus\_percentage IN NUMBER

) IS

BEGIN

UPDATE Employees

SET Salary = Salary \* (1 + p\_bonus\_percentage / 100)

WHERE Department = p\_department;

END UpdateEmployeeBonus;

**Scenario 3: Customers should be able to transfer funds between their accounts.**

CREATE OR REPLACE PROCEDURE TransferFunds (

p\_from\_account\_id IN NUMBER,

p\_to\_account\_id IN NUMBER,

p\_amount IN NUMBER

) IS

BEGIN

UPDATE Accounts

SET Balance = Balance - p\_amount

WHERE AccountID = p\_from\_account\_id AND Balance >= p\_amount;

IF SQL%NOTFOUND THEN

RAISE\_APPLICATION\_ERROR(-20002, 'Insufficient balance.');

END IF;

UPDATE Accounts

SET Balance = Balance + p\_amount

WHERE AccountID = p\_to\_account\_id;

COMMIT;

EXCEPTION

WHEN OTHERS THEN

ROLLBACK;

DBMS\_OUTPUT.PUT\_LINE('Error: ' || SQLERRM);

END TransferFunds;