**Exercise 3: Stored Procedures**

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

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest AS

BEGIN

UPDATE Accounts

SET Balance = Balance + (Balance \* 0.01)

WHERE AccountType = 'Savings';

COMMIT;

DBMS\_OUTPUT.PUT\_LINE('Monthly interest (1%) applied to all Savings accounts.');

END;

/

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

**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\_percent IN NUMBER

) AS

BEGIN

UPDATE Employees

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

WHERE Department = p\_department;

IF SQL%ROWCOUNT = 0 THEN

DBMS\_OUTPUT.PUT\_LINE('No employees found in department: ' || p\_department);

ELSE

COMMIT;

DBMS\_OUTPUT.PUT\_LINE('Bonus applied to employees in department: ' || p\_department);

END IF;

END;

/

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

**Scenario 3: Transfer Funds Between Two Accounts:**

CREATE OR REPLACE PROCEDURE TransferFunds (

p\_from\_account\_id IN NUMBER,

p\_to\_account\_id IN NUMBER,

p\_amount IN NUMBER

) AS

v\_balance NUMBER;

BEGIN

-- Check if source account has sufficient balance

SELECT Balance INTO v\_balance FROM Accounts WHERE AccountID = p\_from\_account\_id;

IF v\_balance < p\_amount THEN

DBMS\_OUTPUT.PUT\_LINE('Error: Insufficient balance in source account.');

RETURN;

END IF;

-- Deduct from source account

UPDATE Accounts

SET Balance = Balance - p\_amount

WHERE AccountID = p\_from\_account\_id;

-- Add to target account

UPDATE Accounts

SET Balance = Balance + p\_amount

WHERE AccountID = p\_to\_account\_id;

COMMIT;

DBMS\_OUTPUT.PUT\_LINE('Transfer successful from Account ' || p\_from\_account\_id || ' to Account ' || p\_to\_account\_id);

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

ROLLBACK;

DBMS\_OUTPUT.PUT\_LINE('Error: One of the account IDs does not exist.');

WHEN OTHERS THEN

ROLLBACK;

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

END;

/

A white background with black text

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.