**PL/SQL EXERCISES:**

**Exercise 3: Stored Procedures**

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest IS

  v\_count NUMBER;

BEGIN

  UPDATE Accounts

  SET Balance = Balance + (Balance \* 0.01)

  WHERE AccountType = 'Savings';

  v\_count := SQL%ROWCOUNT;

  DBMS\_OUTPUT.PUT\_LINE(v\_count || ' savings account(s) updated with 1% interest.');

  COMMIT;

END;

/

BEGIN

  ProcessMonthlyInterest;

END;

/

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus (

  p\_department IN VARCHAR2,

  p\_bonus\_percent IN NUMBER

) IS

  v\_count NUMBER;

BEGIN

  UPDATE Employees

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

  WHERE Department = p\_department;

  v\_count := SQL%ROWCOUNT;

  DBMS\_OUTPUT.PUT\_LINE(v\_count || ' employee(s) in department ' || p\_department ||

                       ' received a bonus of ' || p\_bonus\_percent || '%');

  COMMIT;

END;

/

BEGIN

  UpdateEmployeeBonus('IT', 10);

END;

/

CREATE OR REPLACE PROCEDURE TransferFunds (

  p\_from\_account IN NUMBER,

  p\_to\_account IN NUMBER,

  p\_amount IN NUMBER

) IS

  v\_balance NUMBER;

BEGIN

  -- Check balance

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

  IF v\_balance < p\_amount THEN

    DBMS\_OUTPUT.PUT\_LINE('❌ Insufficient funds. Available: ' || v\_balance || ', Required: ' || p\_amount);

    RETURN;

  END IF;

  -- Transfer

  UPDATE Accounts SET Balance = Balance - p\_amount WHERE AccountID = p\_from\_account;

  UPDATE Accounts SET Balance = Balance + p\_amount WHERE AccountID = p\_to\_account;

  DBMS\_OUTPUT.PUT\_LINE('Transferred ' || p\_amount || ' from Account ' ||

                       p\_from\_account || ' to Account ' || p\_to\_account);

  COMMIT;

END;

/

BEGIN

  TransferFunds(1, 2, 100);

END;

/

**DBMS OUTPUT:**

1 savings account(s) updated with 1% interest.

1 employee(s) in department IT received a bonus of 10%

Transferred 100 from Account 1 to Account 2

