// Table creation before PL SQL Block

CREATE TABLE Accounts (

account\_id NUMBER PRIMARY KEY,

customer\_id NUMBER,

balance NUMBER(7,2),

account\_type VARCHAR2(20)

);  
  
CREATE TABLE Employees (

employee\_id NUMBER PRIMARY KEY,

name VARCHAR2(100),

department VARCHAR2(50),

salary NUMBER(7,2)

);

**Question:** Write a stored procedure **ProcessMonthlyInterest** that calculates and updates the balance of all savings accounts by applying an interest rate of 1% to the current balance.

**Solution :**

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest

IS

BEGIN

UPDATE Accounts

SET balance = balance + (balance \* 0.01)

WHERE account\_type = 'Savings';

COMMIT;

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

END;

**Question:** Write a stored procedure **UpdateEmployeeBonus** that updates the salary of employees in a given department by adding a bonus percentage passed as a parameter.

**Solution :**

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus(

p\_department IN VARCHAR2,

p\_bonus\_pct IN NUMBER

)

IS

BEGIN

UPDATE Employees

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

WHERE department = p\_department;

COMMIT;

DBMS\_OUTPUT.PUT\_LINE('Bonus of ' || p\_bonus\_pct || '% applied to ' || p\_department || ' department employees');

END;

**Question:** Write a stored procedure **TransferFunds** that transfers a specified amount from one account to another, checking that the source account has sufficient balance before making the transfer.

**Solution :**

CREATE OR REPLACE PROCEDURE TransferFunds p\_from\_account IN NUMBER, p\_to\_account IN NUMBER, p\_amount IN NUMBER) IS v\_balance NUMBER;

BEGIN

SELECT balance INTO v\_balance FROM Accounts WHERE account\_id = p\_from\_account;

IF v\_balance < p\_amount THEN

RAISE\_APPLICATION\_ERROR(-20202, 'Insufficient funds in source account');

END IF;

UPDATE Accounts

SET balance = balance - p\_amount

WHERE account\_id = p\_from\_account;

UPDATE Accounts

SET balance = balance + p\_amount

WHERE account\_id = p\_to\_account;

COMMIT;

DBMS\_OUTPUT.PUT\_LINE('Fund transfer of ' || p\_amount || ' completed from account ' || p\_from\_account || ' to account ' || p\_to\_account || '.');

END;