**Scenario 1: Process Monthly Interest for Savings Accounts**

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest IS

v\_interest\_rate NUMBER := 0.01; -- 1% interest rate

BEGIN

-- Update balance of all savings accounts by applying the interest rate

UPDATE accounts

SET balance = balance \* (1 + v\_interest\_rate)

WHERE account\_type = 'Savings';

-- Commit the transaction

COMMIT;

DBMS\_OUTPUT.PUT\_LINE('Monthly interest processed for all savings accounts.');

END ProcessMonthlyInterest;

/

**Scenario 2: Implement a Bonus Scheme for Employees**

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus (

p\_department\_id IN NUMBER,

p\_bonus\_percentage IN NUMBER

) IS

BEGIN

-- Update salaries of employees in the specified department

UPDATE employees

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

WHERE department\_id = p\_department\_id;

-- Commit the transaction

COMMIT;

DBMS\_OUTPUT.PUT\_LINE('Bonus updated for employees in department ' || p\_department\_id || '.');

END UpdateEmployeeBonus;

/

**Scenario 3: Transfer Funds Between Accounts**

CREATE OR REPLACE PROCEDURE TransferFunds (

p\_from\_account\_id IN NUMBER,

p\_to\_account\_id IN NUMBER,

p\_amount IN NUMBER

) AS

v\_from\_balance NUMBER;

v\_to\_balance NUMBER;

BEGIN

-- Check if both accounts exist and get current balances

SELECT balance INTO v\_from\_balance

FROM accounts

WHERE account\_id = p\_from\_account\_id;

SELECT balance INTO v\_to\_balance

FROM accounts

WHERE account\_id = p\_to\_account\_id;

-- Ensure sufficient funds

IF v\_from\_balance < p\_amount THEN

RAISE\_APPLICATION\_ERROR(-20001, 'Insufficient funds for transfer.');

END IF;

-- Begin transaction

BEGIN

-- Transfer funds

UPDATE accounts

SET balance = balance - p\_amount

WHERE account\_id = p\_from\_account\_id;

UPDATE accounts

SET balance = balance + p\_amount

WHERE account\_id = p\_to\_account\_id;

-- Commit the transaction

COMMIT;

EXCEPTION

WHEN OTHERS THEN

-- Rollback transaction and log error

ROLLBACK;

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

RAISE;

END;

END TransferFunds;

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