**Query**

Scenario 1: Process Monthly Interest

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest

IS

BEGIN

UPDATE Accounts

SET balance = balance \* 1.01

WHERE account\_type = 'Savings';

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

COMMIT;

EXCEPTION

WHEN OTHERS THEN

ROLLBACK;

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

END;

/

-- Execute the procedure

BEGIN

ProcessMonthlyInterest;

END;

/

Scenario 2: Update Employee Bonus

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus (

p\_department\_name IN VARCHAR2,

p\_bonus\_percentage IN NUMBER

)

IS

v\_updated\_rows NUMBER := 0;

BEGIN

UPDATE Employees

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

WHERE department = p\_department\_name;

v\_updated\_rows := SQL%ROWCOUNT;

DBMS\_OUTPUT.PUT\_LINE('Bonus applied to ' || v\_updated\_rows || ' employees in ' || p\_department\_name || ' department.');

COMMIT;

EXCEPTION

WHEN OTHERS THEN

ROLLBACK;

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

END;

/

-- Execute the procedure

BEGIN

UpdateEmployeeBonus('Sales', 5);

UpdateEmployeeBonus('IT', 7.5);

END;

/

Scenario 3: Transfer Funds

CREATE OR REPLACE PROCEDURE TransferFunds (

p\_source\_account\_id IN NUMBER,

p\_destination\_account\_id IN NUMBER,

p\_amount IN NUMBER

)

IS

v\_source\_balance NUMBER(15, 2);

BEGIN

IF p\_amount <= 0 THEN

DBMS\_OUTPUT.PUT\_LINE('Transfer amount must be positive.');

RETURN;

END IF;

SELECT balance INTO v\_source\_balance

FROM Accounts

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

IF v\_source\_balance >= p\_amount THEN

UPDATE Accounts

SET balance = balance - p\_amount

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

UPDATE Accounts

SET balance = balance + p\_amount

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

DBMS\_OUTPUT.PUT\_LINE('Transfer of $' || p\_amount || ' from ' || p\_source\_account\_id || ' to ' || p\_destination\_account\_id || ' successful.');

COMMIT;

ELSE

DBMS\_OUTPUT.PUT\_LINE('Insufficient funds in source account ' || p\_source\_account\_id || '. Available: $' || v\_source\_balance);

ROLLBACK;

END IF;

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('One of the accounts does not exist.');

ROLLBACK;

WHEN OTHERS THEN

ROLLBACK;

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

END;

/

-- Execute the procedure

BEGIN

TransferFunds(1002, 1001, 500.00); -- Successful transfer

TransferFunds(1004, 1003, 1000.00); -- Insufficient funds

TransferFunds(9999, 1001, 100.00); -- Non-existent account

END;

/