PL/SQL Programming

SuperSet ID:6412063

Exercise 3: Stored Procedures

INSERT INTO Accounts (AccountID, CustomerID, AccountType, Balance, LastModified)

VALUES (101, 1, 'Savings', 10000, SYSDATE);

INSERT INTO Accounts (AccountID, CustomerID, AccountType, Balance, LastModified)

VALUES (102, 2, 'Checking', 5000, SYSDATE);

INSERT INTO Employees (EmployeeID, Name, Position, Salary, Department, HireDate)

VALUES (101, 'Alice Johnson', 'Manager', 70000, 'HR', TO\_DATE('2015-06-15', 'YYYY-MM-DD'));

INSERT INTO Employees (EmployeeID, Name, Position, Salary, Department, HireDate)

VALUES (102, 'Bob Brown', 'Developer', 60000, 'IT', TO\_DATE('2017-03-20', 'YYYY-MM-DD'));

Scenario 1:

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest IS

BEGIN

UPDATE Accounts

SET Balance = Balance + (Balance \* 0.01)

WHERE AccountType = 'Savings';

COMMIT;

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

END;

/

Output:

A black screen with a black background

Description automatically generated

Scenario 2:

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus (

p\_department IN VARCHAR2,

p\_bonus\_percent IN NUMBER

) IS

BEGIN

UPDATE Employees

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

WHERE Department = p\_department;

COMMIT;

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

END;

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Output:

A black screen with a black background

Description automatically generated

Scenario 3:

CREATE OR REPLACE PROCEDURE TransferFunds (

p\_from\_account\_id IN NUMBER,

p\_to\_account\_id IN NUMBER,

p\_amount IN NUMBER

) IS

v\_balance NUMBER;

BEGIN

-- Check source account balance

SELECT Balance INTO v\_balance

FROM Accounts

WHERE AccountID = p\_from\_account\_id;

IF v\_balance < p\_amount THEN

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

END IF;

UPDATE Accounts

SET Balance = Balance - p\_amount

WHERE AccountID = p\_from\_account\_id;

UPDATE Accounts

SET Balance = Balance + p\_amount

WHERE AccountID = p\_to\_account\_id;

COMMIT;

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

EXCEPTION

WHEN OTHERS THEN

ROLLBACK;

DBMS\_OUTPUT.PUT\_LINE('Transfer failed: ' || SQLERRM);

END;

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Output:

A black screen with a black background

Description automatically generated