**Exercise 3: Stored Procedures**

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus(

p\_department IN VARCHAR2,

p\_bonus\_percent IN NUMBER

) IS

BEGIN

FOR emp IN (

SELECT EmployeeID, Salary

FROM Employees

WHERE Department = p\_department

) LOOP

UPDATE Employees

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

WHERE EmployeeID = emp.EmployeeID;

DBMS\_OUTPUT.PUT\_LINE('Bonus applied to Employee ID: ' || emp.EmployeeID);

END LOOP;

COMMIT;

END;

/

Output;

A black screen with white text

AI-generated content may be incorrect.

**SCENARIO 2: UpdateEmployeeBonus**

**CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus(**

**p\_department IN VARCHAR2,**

**p\_bonus\_percent IN NUMBER**

**) IS**

**BEGIN**

**FOR emp IN (**

**SELECT EmployeeID, Name, Salary**

**FROM Employees**

**WHERE Department = p\_department**

**) LOOP**

**UPDATE Employees**

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

**WHERE EmployeeID = emp.EmployeeID;**

**DBMS\_OUTPUT.PUT\_LINE('Bonus applied to Employee: ' || emp.Name ||**

**' | New Salary: ' || TO\_CHAR(emp.Salary + (emp.Salary \* p\_bonus\_percent / 100)));**

**END LOOP;**

**COMMIT;**

**END;**

**/**

**Output:**

A screenshot of a computer program

AI-generated content may be incorrect.

**Scenario 3: Customers should be able to transfer funds between their accounts.**

CREATE OR REPLACE PROCEDURE TransferFunds(

p\_from\_account IN NUMBER,

p\_to\_account IN NUMBER,

p\_amount IN NUMBER

) IS

v\_from\_balance NUMBER;

BEGIN

-- Check if the source account exists and get its balance (with locking)

SELECT Balance INTO v\_from\_balance

FROM Accounts

WHERE AccountID = p\_from\_account

FOR UPDATE;

-- Check if sufficient balance exists

IF v\_from\_balance < p\_amount THEN

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

END IF;

-- Deduct from source account

UPDATE Accounts

SET Balance = Balance - p\_amount,

LastModified = SYSDATE

WHERE AccountID = p\_from\_account;

-- Add to destination account

UPDATE Accounts

SET Balance = Balance + p\_amount,

LastModified = SYSDATE

WHERE AccountID = p\_to\_account;

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

' from Account ' || p\_from\_account ||

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

COMMIT;

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

RAISE\_APPLICATION\_ERROR(-20002, 'One or both account IDs not found.');

WHEN OTHERS THEN

ROLLBACK;

RAISE;

END;

/  
  
Output;

A black screen with white text

AI-generated content may be incorrect.