**PL/SQL**

**Exercise 3: Stored Procedures**

**Scenario 1:**

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.

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest IS

BEGIN

FOR acc IN (

SELECT AccountID, Balance

FROM Accounts

WHERE AccountType = 'Savings'

) LOOP

UPDATE Accounts

SET Balance = Balance + (acc.Balance \* 0.01)

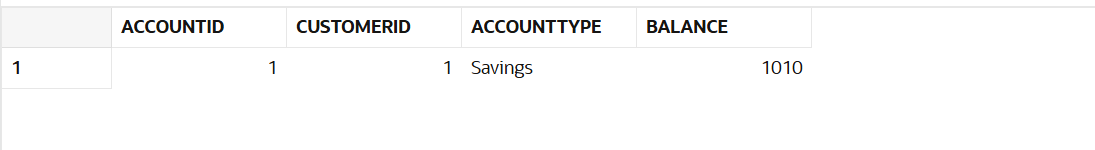
WHERE AccountID = acc.AccountID;

END LOOP;

COMMIT;

END;

**OUTPUT:**

****

**Scenario 2:**

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

CREATE OR REPLACE UpdateEmployeeBonus (

p\_Department IN VARCHAR2(100),

p\_bonus\_percentage IN NUMBER

)IS

BEGIN

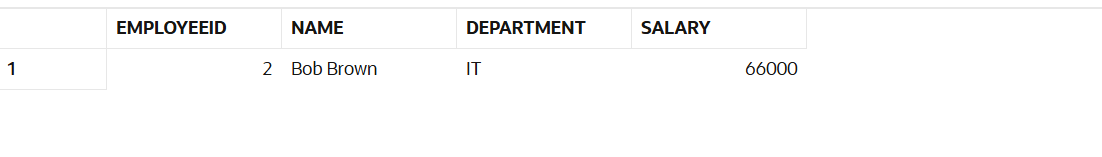
UPDATE Employees

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

WHERE Department=p\_Department;

END;

**OUTPUT:**

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**Scenario 3:**

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

CREATE OR REPLACE PROCEDURE TransferFunds(

p\_FromAccountID IN NUMBER,

p\_ToAccountID IN NUMBER,

p\_Amount IN NUMBER

) IS

v\_FromBalance NUMBER;

BEGIN

SELECT Balance INTO v\_FromBalance

FROM Accounts

WHERE AccountID = p\_FromAccountID;

IF v\_FromBalance < p\_Amount THEN

DBMS\_OUTPUT.PUT\_LINE('Insufficient funds in source account.');

ELSE

UPDATE Accounts

SET Balance = Balance - p\_Amount

WHERE AccountID = p\_FromAccountID;

UPDATE Accounts

SET Balance = Balance + p\_Amount

WHERE AccountID = p\_ToAccountID;

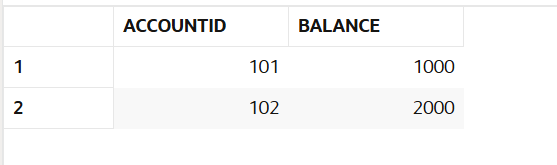
DBMS\_OUTPUT.PUT\_LINE('Transfer successful.');

END IF;

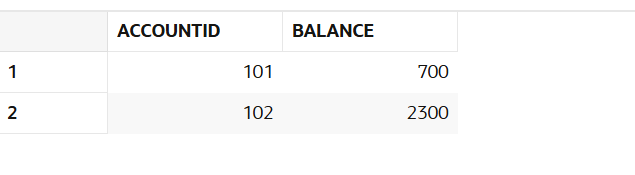
END;

**OUTPUT:**

Before Transfer

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After Transfer



Insufficient fund

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