**Exercise 3: Stored Procedures**

**Scenario-1 Solution:**

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest IS

BEGIN

FOR acc IN (SELECT AccountID, Balance FROM SavingsAccounts) LOOP

UPDATE SavingsAccounts

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

WHERE AccountID = acc.AccountID;

END LOOP;

COMMIT;

END;

Output 🡪

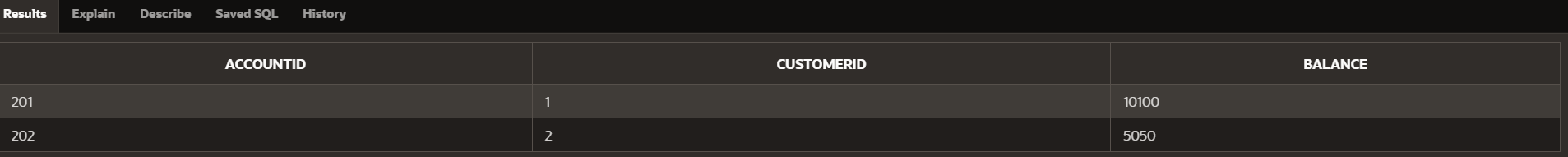
BEGIN

ProcessMonthlyInterest;

END;

/

SELECT \* FROM SavingsAccounts;



**Scenario-2 Solution:**

CREATE OR REPLACE PROCEDURE UpdateEmployeeBonus (

p\_DepartmentID IN NUMBER,

p\_BonusPercent IN NUMBER

) IS

BEGIN

UPDATE Employees

SET Salary = Salary + (Salary \* p\_BonusPercent / 100)

WHERE DepartmentID = p\_DepartmentID;

COMMIT;

END;

/

Output 🡪

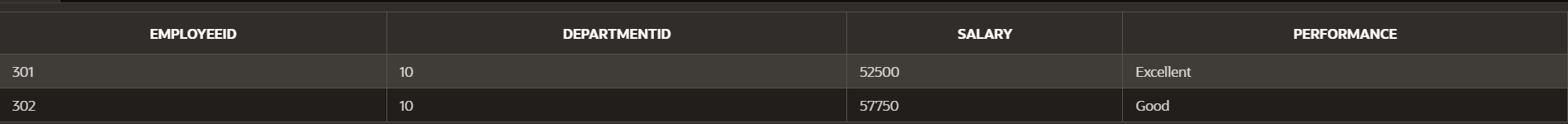
BEGIN

UpdateEmployeeBonus(10, 5); -- 5% bonus for department 10

END;

/

SELECT \* FROM Employees WHERE DepartmentID = 10;



**Scenarion-2 Solution:**

CREATE OR REPLACE PROCEDURE TransferFunds(

p\_SourceAccountID IN NUMBER,

p\_TargetAccountID IN NUMBER,

p\_Amount IN NUMBER

) IS

v\_SourceBalance NUMBER;

BEGIN

SELECT Balance INTO v\_SourceBalance

FROM BankAccounts

WHERE AccountID = p\_SourceAccountID

FOR UPDATE;

IF v\_SourceBalance < p\_Amount THEN

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

END IF;

UPDATE BankAccounts

SET Balance = Balance - p\_Amount

WHERE AccountID = p\_SourceAccountID;

UPDATE BankAccounts

SET Balance = Balance + p\_Amount

WHERE AccountID = p\_TargetAccountID;

COMMIT;

END;

/

Output 🡪

BEGIN

TransferFunds(401, 403, 5000); -- transfer ₹5000 from account 401 to 403

END;

/

SELECT \* FROM BankAccounts

WHERE AccountID IN (401, 403);

