Exercise 6: Cursors

**Scenario 1: Generate monthly statements for all customers.**

**O Question: Write a PL/SQL block using an explicit cursor GenerateMonthlyStatements that retrieves all transactions for the current month and prints a statement for each customer.**

DECLARE

DECLARE

CURSOR c\_customers IS SELECT CustomerID FROM Customers;

v\_customer\_id NUMBER;

BEGIN

OPEN c\_customers;

LOOP

FETCH c\_customers INTO v\_customer\_id;

EXIT WHEN c\_customers%NOTFOUND;

END LOOP;

CLOSE c\_customers;

END;

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**Scenario 2: Apply annual fee to all accounts.**

**O Question: Write a PL/SQL block using an explicit cursor ApplyAnnualFee that deducts an annual maintenance fee from the balance of all accounts.**

DECLARE

CURSOR c\_accounts IS SELECT AccountID, Balance FROM Accounts;

v\_account\_id NUMBER;

v\_balance NUMBER;

v\_annual\_fee NUMBER := 100;

BEGIN

OPEN c\_accounts;

LOOP

FETCH c\_accounts INTO v\_account\_id, v\_balance;

EXIT WHEN c\_accounts%NOTFOUND;

UPDATE Accounts SET Balance = Balance - v\_annual\_fee WHERE AccountID = v\_account\_id;

END LOOP;

CLOSE c\_accounts;

COMMIT;

END;

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**Scenario 3: Update the interest rate for all loans based on a new policy.**

**O Question: Write a PL/SQL block using an explicit cursor UpdateLoanInterestRates that fetches all loans and updates their interest rates based on the new policy.**

DECLARE

CURSOR c\_loans IS SELECT LoanID, InterestRate FROM Loans;

v\_loan\_id NUMBER;

v\_interest\_rate NUMBER;

v\_new\_interest\_rate NUMBER := 4.5;

BEGIN

OPEN c\_loans;

LOOP

FETCH c\_loans INTO v\_loan\_id, v\_interest\_rate;

EXIT WHEN c\_loans%NOTFOUND;

UPDATE Loans SET InterestRate = v\_new\_interest\_rate WHERE LoanID = v\_loan\_id;

END LOOP;

CLOSE c\_loans;

COMMIT;

END;

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