**Exercise 6: Cursors**

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

DECLARE

CURSOR c\_monthly\_statements IS

SELECT DISTINCT CustomerID FROM Transactions

WHERE EXTRACT(MONTH FROM TransactionDate) = EXTRACT(MONTH FROM SYSDATE)

AND EXTRACT(YEAR FROM TransactionDate) = EXTRACT(YEAR FROM SYSDATE);

v\_customer\_id Customers.CustomerID%TYPE;

BEGIN

OPEN c\_monthly\_statements;

LOOP

FETCH c\_monthly\_statements INTO v\_customer\_id;

EXIT WHEN c\_monthly\_statements%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE('Generating statement for Customer ID ' || v\_customer\_id);

END LOOP;

CLOSE c\_monthly\_statements;

END;

/

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

DECLARE

CURSOR c\_accounts IS

SELECT AccountID FROM Accounts;

BEGIN

FOR rec IN c\_accounts LOOP

UPDATE Accounts

SET Balance = Balance - 50 -- assuming an annual fee of $50

WHERE AccountID = rec.AccountID;

END LOOP;

COMMIT;

END;

/

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

DECLARE

CURSOR c\_loans IS

SELECT LoanID, InterestRate FROM Loans;

BEGIN

FOR rec IN c\_loans LOOP

UPDATE Loans

SET InterestRate = rec.InterestRate \* 1.02 -- assuming a 2% increase

WHERE LoanID = rec.LoanID;

END LOOP;

COMMIT;

END;

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