**Exercise 6:**

**Scenario 1:**

DECLARE

CURSOR c\_monthly\_transactions IS

SELECT c.CustomerID, c.Name, t.TransactionID, t.TransactionDate, t.Amount, t.TransactionType

FROM Customers c

JOIN Accounts a ON c.CustomerID = a.CustomerID

JOIN Transactions t ON a.AccountID = t.AccountID

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

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

v\_customer\_id Customers.CustomerID%TYPE;

v\_customer\_name Customers.Name%TYPE;

v\_transaction\_id Transactions.TransactionID%TYPE;

v\_transaction\_date Transactions.TransactionDate%TYPE;

v\_amount Transactions.Amount%TYPE;

v\_transaction\_type Transactions.TransactionType%TYPE;

BEGIN

OPEN c\_monthly\_transactions;

LOOP

FETCH c\_monthly\_transactions INTO v\_customer\_id, v\_customer\_name, v\_transaction\_id, v\_transaction\_date, v\_amount, v\_transaction\_type;

EXIT WHEN c\_monthly\_transactions%NOTFOUND;

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

DBMS\_OUTPUT.PUT\_LINE('Customer Name: ' || v\_customer\_name);

DBMS\_OUTPUT.PUT\_LINE('Transaction ID: ' || v\_transaction\_id);

DBMS\_OUTPUT.PUT\_LINE('Date: ' || TO\_CHAR(v\_transaction\_date, 'YYYY-MM-DD'));

DBMS\_OUTPUT.PUT\_LINE('Amount: ' || v\_amount);

DBMS\_OUTPUT.PUT\_LINE('Type: ' || v\_transaction\_type);

DBMS\_OUTPUT.PUT\_LINE('-----------------------------------');

END LOOP;

CLOSE c\_monthly\_transactions;

END;

/

**Scenario 2:**

DECLARE

CURSOR c\_accounts IS

SELECT AccountID, Balance

FROM Accounts;

v\_account\_id Accounts.AccountID%TYPE;

v\_balance Accounts.Balance%TYPE;

v\_annual\_fee NUMBER := 50;

BEGIN

OPEN c\_accounts;

LOOP

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

EXIT WHEN c\_accounts%NOTFOUND;

UPDATE Accounts

SET Balance = v\_balance - v\_annual\_fee

WHERE AccountID = v\_account\_id;

END LOOP;

CLOSE c\_accounts;

COMMIT;

END;

/

**Scenario 3:**

DECLARE

CURSOR c\_loans IS

SELECT LoanID, InterestRate

FROM Loans;

v\_loan\_id Loans.LoanID%TYPE;

v\_current\_interest\_rate Loans.InterestRate%TYPE;

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

BEGIN

OPEN c\_loans;

LOOP

FETCH c\_loans INTO v\_loan\_id, v\_current\_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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