**Exercise 6: Cursors**

**ANS1**DECLARE

CID ACCOUNTS.CUSTOMERID%TYPE;

TID TRANSACTIONS.TRANSACTIONID%TYPE;

AID ACCOUNTS.ACCOUNTID%TYPE;

TDATE TRANSACTIONS.TRANSACTIONDATE%TYPE;

TTYPE TRANSACTIONS.TRANSACTIONTYPE%TYPE;

CURSOR GenerateMonthlyStatements IS SELECT ACCOUNTS.CUSTOMERID, TRANSACTIONID, ACCOUNTS.ACCOUNTID, TRANSACTIONDATE, TRANSACTIONTYPE

FROM TRANSACTIONS, ACCOUNTS WHERE ACCOUNTS.ACCOUNTID=TRANSACTIONS.ACCOUNTID AND EXTRACT(MONTH FROM TRANSACTIONDATE)=EXTRACT(MONTH FROM SYSDATE);

BEGIN

OPEN GenerateMonthlyStatements;

LOOP

FETCH GenerateMonthlyStatements INTO CID, TID, AID, TDATE, TTYPE;

EXIT WHEN GenerateMonthlyStatements%NOTFOUND;

DBMS\_OUTPUT.PUT\_LINE(CID);

DBMS\_OUTPUT.PUT\_LINE(TID);

DBMS\_OUTPUT.PUT\_LINE(AID);

DBMS\_OUTPUT.PUT\_LINE(TDATE);

DBMS\_OUTPUT.PUT\_LINE(TTYPE);

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

END LOOP;

CLOSE GenerateMonthlyStatements;

END;

/ **========================================================================================**

**ANS2**

DECLARE

AID ACCOUNTS.ACCOUNTID%TYPE;

ABAL ACCOUNTS.BALANCE%TYPE;

ANNUAL\_FEE NUMBER:=50;

CURSOR ApplyAnnualFee IS SELECT ACCOUNTID,BALANCE FROM ACCOUNTS;

BEGIN

OPEN ApplyAnnualFee;

LOOP

FETCH ApplyAnnualFee INTO AID,ABAL;

EXIT WHEN ApplyAnnualFee%NOTFOUND;

UPDATE ACCOUNTS

SET UPDATED\_BALANCE= BALANCE-ANNUAL\_FEE

WHERE ACCOUNTID=AID;

END LOOP;

CLOSE ApplyAnnualFee;

COMMIT;

DBMS\_OUTPUT.PUT\_LINE('ACCOUNT BALANCE UPDATED FOR ALL ACCOUNTS!');

END;

/

**ANS3**

DECLARE

LID LOANS.LOANID%TYPE;

LIR LOANS.INTERESTRATE%TYPE;

NEW\_IR NUMBER:=5.5;

CURSOR UpdateLoanInterestRates IS SELECT LOANID,INTERESTRATE FROM LOANS;

BEGIN

OPEN UpdateLoanInterestRates;

LOOP

FETCH UpdateLoanInterestRates INTO LID,LIR;

EXIT WHEN UpdateLoanInterestRates%NOTFOUND;

UPDATE LOANS

SET INTERESTRATE= INTERESTRATE+NEW\_IR

WHERE LOANID=LID;

END LOOP;

CLOSE UpdateLoanInterestRates;

COMMIT;

DBMS\_OUTPUT.PUT\_LINE('INTEREST RATES UPDATED FOR ALL LOANS!');

END;

/