**Exercise 6: Cursors**

**Scenario 3:**

**CODE:**

***-- creation of Customers table***

CREATE TABLE Customers (

CustomerID NUMBER PRIMARY KEY,

Name VARCHAR2(100),

DOB DATE,

Balance NUMBER,

LastModified DATE

);

***-- Inserting values into Customers table***

BEGIN

INSERT INTO Customers VALUES (1, 'Alice Reddy', TO\_DATE('1950-05-10', 'YYYY-MM-DD'), 12000, SYSDATE);

INSERT INTO Customers VALUES (2, 'Bob Singh', TO\_DATE('1990-08-21', 'YYYY-MM-DD'), 8000, SYSDATE);

INSERT INTO Customers VALUES (3, 'Carol Mehta', TO\_DATE('1962-01-15', 'YYYY-MM-DD'), 15000, SYSDATE );

INSERT INTO Customers VALUES (4, 'David Rao', TO\_DATE('1985-12-01', 'YYYY-MM-DD'), 9500, SYSDATE);

INSERT INTO Customers VALUES (5, 'Esha Iyer', TO\_DATE('1945-03-25', 'YYYY-MM-DD'), 20000, SYSDATE);

END;

/

***-- creation of Loans table***

CREATE TABLE Loans (

LoanID NUMBER PRIMARY KEY,

CustomerID NUMBER,

LoanAmount NUMBER,

InterestRate NUMBER,

StartDate DATE,

EndDate DATE,

FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)

);

***-- Inserting values into Loans table***

BEGIN

INSERT INTO Loans VALUES (1, 1, 5000, 5, SYSDATE, ADD\_MONTHS(SYSDATE, 60));

INSERT INTO Loans VALUES (2, 2, 15000, 6.5, SYSDATE, ADD\_MONTHS(SYSDATE, 36));

INSERT INTO Loans VALUES (3, 3, 25000, 7, SYSDATE, ADD\_MONTHS(SYSDATE, 24));

INSERT INTO Loans VALUES (4, 4, 10000, 6.8, SYSDATE, ADD\_MONTHS(SYSDATE, 12));

INSERT INTO Loans VALUES (5, 5, 30000, 5.5, SYSDATE, ADD\_MONTHS(SYSDATE, 48));

END;

/

DECLARE

CURSOR UpdateLoanInterestRates IS

SELECT LoanID, LoanAmount, InterestRate

FROM Loans;

loan\_rec UpdateLoanInterestRates%ROWTYPE;

new\_rate NUMBER;

BEGIN

OPEN UpdateLoanInterestRates;

LOOP

FETCH UpdateLoanInterestRates INTO loan\_rec;

EXIT WHEN UpdateLoanInterestRates%NOTFOUND;

IF loan\_rec.LoanAmount < 10000 THEN

new\_rate := loan\_rec.InterestRate + 0.5;

ELSIF loan\_rec.LoanAmount BETWEEN 10000 AND 20000 THEN

new\_rate := loan\_rec.InterestRate + 0.3;

ELSE

new\_rate := loan\_rec.InterestRate + 0.2;

END IF;

UPDATE Loans

SET InterestRate = new\_rate

WHERE LoanID = loan\_rec.LoanID;

DBMS\_OUTPUT.PUT\_LINE('Loan ID: ' || loan\_rec.LoanID ||

' | Old Rate: ' || loan\_rec.InterestRate || '%' ||

' | New Rate: ' || new\_rate || '%');

END LOOP;

CLOSE UpdateLoanInterestRates;

END;

/

**OUTPUT:**

