Exercise 1:**PL/SQL Code:**

BEGIN

EXECUTE IMMEDIATE 'DROP TABLE LoanDetails\_CTRL'; EXCEPTION WHEN OTHERS THEN NULL;

END;

/

BEGIN

EXECUTE IMMEDIATE 'DROP TABLE CustomerInfo\_CTRL'; EXCEPTION WHEN OTHERS THEN NULL;

END;

/

**Create tables**

CREATE TABLE CustomerInfo\_CTRL ( CustomerID NUMBER PRIMARY KEY, Name VARCHAR2(50),

Age NUMBER,

Balance NUMBER, LoanInterestRate NUMBER, IsVIP VARCHAR2(5)

);

CREATE TABLE LoanDetails\_CTRL ( LoanID NUMBER PRIMARY KEY,

CustomerID NUMBER, DueDate DATE,

FOREIGN KEY (CustomerID) REFERENCES CustomerInfo\_CTRL(CustomerID)

);

/

**Insert sample data**

INSERT INTO CustomerInfo\_CTRL VALUES (1, 'Ravi', 65, 15000, 10, 'FALSE');

INSERT INTO CustomerInfo\_CTRL VALUES (2, 'Meena', 45, 8000, 12, 'FALSE');

INSERT INTO CustomerInfo\_CTRL VALUES (3, 'Asha', 70, 11000, 11, 'FALSE');

INSERT INTO CustomerInfo\_CTRL VALUES (4, 'Kumar', 50, 9500, 13, 'FALSE');

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| INSERT | INTO | LoanDetails\_CTRL | VALUES | (101, | 1, | SYSDATE | + | 15); |
| INSERT | INTO | LoanDetails\_CTRL | VALUES | (102, | 2, | SYSDATE | + | 40); |
| INSERT | INTO | LoanDetails\_CTRL | VALUES | (103, | 3, | SYSDATE | + | 10); |
| INSERT | INTO | LoanDetails\_CTRL | VALUES | (104, | 4, | SYSDATE | + | 25); |
| / |  | | | | | | | |
| COMMIT; |
| / |

**Apply 1% Discount to Loan Interest if Age > 60** BEGIN

FOR rec IN (SELECT CustomerID, Age FROM CustomerInfo\_CTRL) LOOP

IF rec.Age > 60 THEN

UPDATE CustomerInfo\_CTRL

SET LoanInterestRate = LoanInterestRate - 1 WHERE CustomerID = rec.CustomerID;

END IF;

END LOOP;

COMMIT;

END;

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**View after Scenario 1**

SELECT \* FROM CustomerInfo\_CTRL;

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-- Scenario 2: Set IsVIP = 'TRUE' if Balance > 10,000 BEGIN

FOR rec IN (SELECT CustomerID, Balance FROM CustomerInfo\_CTRL) LOOP IF rec.Balance > 10000 THEN

UPDATE CustomerInfo\_CTRL SET IsVIP = 'TRUE'

WHERE CustomerID = rec.CustomerID; END IF;

END LOOP;

COMMIT;

END;

/

**View after Scenario 2**

SELECT \* FROM CustomerInfo\_CTRL;

/

-- Scenario 3: Print reminders for loans due in next 30 days

-- Make sure DBMS\_OUTPUT is enabled in Oracle Live SQL DECLARE

CURSOR c\_loans IS

SELECT LoanID, CustomerID, DueDate FROM LoanDetails\_CTRL

WHERE DueDate <= SYSDATE + 30;

v\_name CustomerInfo\_CTRL.Name%TYPE; BEGIN

FOR rec IN c\_loans LOOP SELECT Name INTO v\_name FROM CustomerInfo\_CTRL

WHERE CustomerID = rec.CustomerID;

DBMS\_OUTPUT.PUT\_LINE('Reminder: Dear ' || v\_name ||

', your loan (ID: ' || rec.LoanID || ') is due on ' || TO\_CHAR(rec.DueDate, 'DD-MON-YYYY'));

END LOOP;

END;



