**Exercise 1: Control Structures**

**Scenario 1:** The bank wants to apply a discount to loan interest rates for customers above 60 years old.

* + **Question:** Write a PL/SQL block that loops through all customers, checks their age, and if they are above 60, apply a 1% discount to their current loan interest rates.

**Scenario 2:** A customer can be promoted to VIP status based on their balance.

* + **Question:** Write a PL/SQL block that iterates through all customers and sets a flag IsVIP to TRUE for those with a balance over $10,000.

**Scenario 3:** The bank wants to send reminders to customers whose loans are due within the next 30 days.

* + **Question:** Write a PL/SQL block that fetches all loans due in the next 30 days and prints a reminder message for each customer.

## ****Scenario 1: Apply Discount to Customers Above 60****

DECLARE

CURSOR cust\_cursor IS

SELECT customer\_id, birthdate, loan\_interest\_rate

FROM customers

FOR UPDATE; -- Allows updating rows during iteration

v\_age NUMBER;

BEGIN

FOR cust\_rec IN cust\_cursor LOOP

-- Calculate age in years

v\_age := TRUNC(MONTHS\_BETWEEN(SYSDATE, cust\_rec.birthdate) / 12);

IF v\_age > 60 THEN

-- Apply 1% discount to loan interest rate

UPDATE customers

SET loan\_interest\_rate = loan\_interest\_rate - 1

WHERE CURRENT OF cust\_cursor; -- Updates current row in cursor

END IF;

END LOOP;

COMMIT; -- Save changes

END;

/

## ****Scenario 2: Promote Customers to VIP Based on Balance****

DECLARE

CURSOR vip\_cursor IS

SELECT customer\_id

FROM customers

WHERE balance > 10000

FOR UPDATE; -- Lock rows for update

BEGIN

FOR vip\_rec IN vip\_cursor LOOP

-- Set IsVIP flag to TRUE

UPDATE customers

SET isvip = 'TRUE'

WHERE CURRENT OF vip\_cursor; -- Updates current row

END LOOP;

COMMIT;

END;

/

## ****Scenario 2: Promote Customers to VIP Based on Balance****

DECLARE

CURSOR vip\_cursor IS

SELECT customer\_id

FROM customers

WHERE balance > 10000

FOR UPDATE; -- Lock rows for update

BEGIN

FOR vip\_rec IN vip\_cursor LOOP

-- Set IsVIP flag to TRUE

UPDATE customers

SET isvip = 'TRUE'

WHERE CURRENT OF vip\_cursor; -- Updates current row

END LOOP;

COMMIT;

END;

/