**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:**

DECLARE

v\_customer\_id NUMBER;

v\_dob DATE;

v\_age NUMBER;

BEGIN

FOR rec IN (SELECT CustomerID, DOB FROM Customers) LOOP

v\_customer\_id := rec.CustomerID;

v\_dob := rec.DOB;

v\_age := FLOOR(MONTHS\_BETWEEN(SYSDATE, v\_dob) / 12);

IF v\_age > 60 THEN

UPDATE Loans

SET InterestRate = InterestRate - 1

WHERE CustomerID = v\_customer\_id;

END IF;

END LOOP;

END;

**Scenario 2:**

BEGIN

FOR rec IN (SELECT CustomerID, Balance FROM Customers) LOOP

IF rec.Balance > 10000 THEN

UPDATE Customers

SET IsVIP = 'TRUE'

WHERE CustomerID = rec.CustomerID;

END IF;

END LOOP;

END;

**Scenario 3:**

BEGIN

FOR rec IN (SELECT CustomerID, LoanID, EndDate FROM Loans WHERE EndDate <= SYSDATE + 30) LOOP

DBMS\_OUTPUT.PUT\_LINE('Reminder: Loan ' || rec.LoanID || ' for customer ' || rec.CustomerID || ' is due within 30 days.');

  END LOOP;

END;