**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\_age NUMBER;

BEGIN

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

v\_age := FLOOR(MONTHS\_BETWEEN(SYSDATE, cust.DOB) / 12);

IF v\_age > 60 THEN

UPDATE Loans

SET InterestRate = InterestRate - 1

WHERE CustomerID = cust.CustomerID AND InterestRate > 1;

DBMS\_OUTPUT.PUT\_LINE('Applied discount for customer ID: ' || cust.CustomerID);

END IF;

END LOOP;

COMMIT;

END;

**/**

**Scenario 2:**

BEGIN

UPDATE Customers

SET IsVIP = 1

WHERE Balance > 10000;

DBMS\_OUTPUT.PUT\_LINE('Updated VIP status for ' || SQL%ROWCOUNT || ' customers');

COMMIT;

END;

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**Scenario 3:**

DECLARE

v\_customer\_name Customers.Name%TYPE;

BEGIN

FOR loan IN (

SELECT l.LoanID, l.CustomerID, l.EndDate, c.Name

FROM Loans l

JOIN Customers c ON l.CustomerID = c.CustomerID

WHERE l.EndDate BETWEEN SYSDATE AND SYSDATE + 30

) LOOP

v\_customer\_name := loan.Name;

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

' for customer ' || v\_customer\_name ||

' is due on ' || TO\_CHAR(loan.EndDate, 'YYYY-MM-DD'));

END LOOP;

END;

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