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.

BEGIN

FOR rec IN (SELECT CustomerID, InterestRate

FROM Loans l JOIN Customers c ON l.CustomerID = c.CustomerID

WHERE MONTHS\_BETWEEN(SYSDATE, DOB) / 12 > 60) LOOP

UPDATE Loans

SET InterestRate = InterestRate - 1

WHERE CustomerID = rec.CustomerID;

END LOOP;

END;

# 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.

BEGIN

FOR rec IN (SELECT CustomerID FROM Customers WHERE Balance > 10000) LOOP

UPDATE Customers

SET IsVIP = TRUE

WHERE CustomerID = rec.CustomerID;

END LOOP;

END;

# 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.

BEGIN

FOR rec IN (SELECT CustomerID, LoanID

FROM Loans

WHERE EndDate BETWEEN SYSDATE AND SYSDATE + 30) LOOP

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

' for Customer ID ' || rec.CustomerID ||

' is due within 30 days.');

END LOOP;

END;