**Exercise 1 : Control Structures**

**Scenerio 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.

**Program:**

BEGIN

FOR cus IN (SELECT CustomerID, Age, LoanInterestRate

FROM CUSTOMERS

WHERE Age > 60)

LOOP

UPDATE CUSTOMERS

SET LoanInterestRate = LoanInterestRate - 1

WHERE CustomerID = cus.CustomerID;

END LOOP;

COMMIT;

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.

**Program:**

BEGIN

FOR cus IN (SELECT CustomerID, Balance

FROM CUSTOMERS

WHERE Balance > 10000)

LOOP

UPDATE CUSTOMERS

SET IsVIP = 'TRUE'

WHERE CustomerID = cus.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.

**Program:**

BEGIN

FOR loan IN (

SELECT L.LoanID, L.CustomerID, C.CustomerName, L.DueDate

FROM LOANS L

JOIN CUSTOMERS C ON L.CustomerID = C.CustomerID

WHERE L.DueDate BETWEEN SYSDATE AND SYSDATE + 30

)

LOOP

DBMS\_OUTPUT.PUT\_LINE('Reminder: Dear ' || loan.CustomerName ||

', your loan (Loan ID: ' || loan.LoanID ||

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

END LOOP;

END;