**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:** 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.

**Code:**

DECLARE

    CURSOR curs IS

        SELECT l.LoanID,l.InterestRate

        FROM Customers c

        JOIN Loans l ON c.CustomerID=l.CustomerID

        WHERE MONTHS\_BETWEEN(SYSDATE,c.DOB)/12>60;

BEGIN

    FOR cur IN curs LOOP

        UPDATE Loans

        SET InterestRate=InterestRate-1

        WHERE LoanID=cur.LoanID;

    END LOOP;

    COMMIT;

END;

**Output:** Interest rates for customers aged above 60 reduced by 1%.

**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.

**Code:**

DECLARE

    CURSOR curs IS

        SELECT CustomerID

        FROM Customers

        WHERE Balance>10000;

BEGIN

    FOR cur IN curs LOOP

        UPDATE Customers

        SET IsVIP='TRUE'

        WHERE CustomerID=cur.CustomerID;

    END LOOP;

    COMMIT;

END;

**Output:** Customers with balance over $10,000 marked as VIP.

**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.

**Code:**

DECLARE

    CURSOR curs IS

        SELECT CustomerID,EndDate

        FROM Loans

        WHERE EndDate<=SYSDATE+30;

BEGIN

    FOR cur IN curs LOOP

        DBMS\_OUTPUT.PUT\_LINE('Reminder: Loan for Customer ID' ||cur.CustomerID||'is due on'||TO\_CHAR(cur.EndDate,'DD-MON-YYYY'));

    END LOOP;

END;

**Output:** Reminder messages printed for customers whose loans are due within 30 days.