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.

**Answers :**

**Scenario 1: Apply 1% Discount for Customers Above 60**

BEGIN

FOR cust IN (

SELECT customer\_id, age, loan\_id, interest\_rate

FROM customers

JOIN loans ON customers.customer\_id = loans.customer\_id

)

LOOP

IF cust.age > 60 THEN

UPDATE loans

SET interest\_rate = interest\_rate - 1

WHERE loan\_id = cust.loan\_id;

END IF;

END LOOP;

COMMIT;

END;

**Scenario 2: Promote to VIP Based on Balance**

BEGIN

FOR cust IN (

SELECT customer\_id, balance

FROM customers

)

LOOP

IF cust.balance > 10000 THEN

UPDATE customers

SET isVIP = 'TRUE'

WHERE customer\_id = cust.customer\_id;

END IF;

END LOOP;

COMMIT;

END;

**Scenario 3: Reminders for Loans Due Within 30 Days**

BEGIN

FOR due\_loan IN (

SELECT l.loan\_id, c.customer\_id, c.name, l.due\_date

FROM loans l

JOIN customers c ON c.customer\_id = l.customer\_id

WHERE l.due\_date BETWEEN SYSDATE AND SYSDATE + 30

)

LOOP

DBMS\_OUTPUT.PUT\_LINE('Reminder: Loan ID ' || due\_loan.loan\_id ||

' for customer ' || due\_loan.name ||

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

END LOOP;

END;