**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.

**Code:**

DECLARE

CURSOR customer\_cursor IS

SELECT customer\_id, age, interest\_rate

FROM customers

WHERE age > 60;

BEGIN

FOR customer\_rec IN customer\_cursor LOOP

UPDATE customers

SET interest\_rate = interest\_rate - 1

WHERE customer\_id = customer\_rec.customer\_id;

DBMS\_OUTPUT.PUT\_LINE('Updated interest rate for customer ID: ' || customer\_rec.customer\_id);

END LOOP;

END;

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**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:**

BEGIN

UPDATE customers

SET IsVIP = 'TRUE'

WHERE balance > 10000;

DBMS\_OUTPUT.PUT\_LINE('VIP status updated for eligible customers.');

END;

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**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 loan\_cursor IS

SELECT customer\_id, loan\_id, due\_date

FROM loans

WHERE due\_date BETWEEN SYSDATE AND SYSDATE + 30;

BEGIN

FOR loan\_rec IN loan\_cursor LOOP

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

' for Customer ID ' || loan\_rec.customer\_id ||

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

END LOOP;

END;

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