**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 r IN (SELECT CustomerID AS cid, DOB FROM Customers) LOOP

DECLARE

age NUMBER;

BEGIN

age := TRUNC(MONTHS\_BETWEEN(SYSDATE, r.DOB) / 12);

IF age > 60 THEN

UPDATE Loans

SET InterestRate = InterestRate - 1

WHERE CustomerID = r.cid;

END IF;

END;

END LOOP;

COMMIT;

END;

/

**OUTPUT:**

A white paper with black text

AI-generated content may be incorrect.

**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 c IN (SELECT CustomerID, Balance FROM Customers) LOOP

IF c.Balance > 10000 THEN

UPDATE Customers

SET IsVIP = 'TRUE'

WHERE CustomerID = c.CustomerID;

END IF;

END LOOP;

COMMIT;

END;

/

**OUTPUT:**

A white sheet with black text

AI-generated content may be incorrect.

**Scenario 3: The bank wants to send reminders to customers whose loans are due within the next 30 days.**

**o 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 r IN (

SELECT c.CustomerID, c.Name, l.LoanID, l.EndDate

FROM Customers c

JOIN Loans l ON c.CustomerID = l.CustomerID

WHERE l.EndDate BETWEEN SYSDATE AND SYSDATE + 30

) LOOP

DBMS\_OUTPUT.PUT\_LINE(

'Reminder: Loan ' || r.LoanID ||

' for customer ' || r.Name ||

' (ID: ' || r.CustomerID ||

') is due on ' || TO\_CHAR(r.EndDate, 'DD-MON-YYYY')

);

END LOOP;

END;

/

**OUTPUT:**

A close-up of a card

AI-generated content may be incorrect.