**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.**

DECLARE

cust\_id Customers.CustomerID%TYPE;

dob Customers.DOB%TYPE;

curr\_date DATE := SYSDATE;

age NUMBER;

cnt NUMBER := 0;

BEGIN

FOR cust IN ( SELECT CustomerID, DOB FROM Customers) LOOP

cust\_id := cust.CustomerID;

dob := cust.DOB;

age := FLOOR(MONTHS\_BETWEEN(curr\_date, dob) / 12);

IF age > 60 THEN

UPDATE Loans SET InterestRate = InterestRate - 1 WHERE CustomerID = cust\_id;

cnt := cnt+1;

END IF;

END LOOP;

DBMS\_OUTPUT.PUT\_LINE('Number of customers whose interset rate have been reduced: ' || cnt);

END;

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**SCENARIO 2 - A CUSTOMER CAN BE PROMOTED TO VIP STATUS BASED ON THEIR BALANCE.**

**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.**

CREATE OR REPLACE VIEW Customer\_VIP\_Status AS

SELECT CustomerID, Name, Balance,

CASE

WHEN Balance > 10000 THEN 'Y'

ELSE 'N'

END AS VIPStatus

FROM Customers;

SELECT \* FROM Customer\_VIP\_Status;

**SCENARIO 3 -THE BANK WANTS TO SEND REMINDERS TO CUSTOMERS WHOSE LOANS ARE DUE WITHIN THE NEXT 30 DAYS.**

**Write a PL/SQL block that fetches all loans due in the next 30 days and prints a reminder message for each customer.**

DECLARE

loan\_id Loans.LoanID%TYPE;

cust\_id Loans.CustomerID%TYPE;

end\_date Loans.EndDate%TYPE;

amt Loans.LoanAmount%TYPE;

cust\_name Customers.Name%TYPE;

cur\_date DATE := SYSDATE;

BEGIN

FOR loan\_record IN (SELECT LoanID, CustomerID, EndDate,LoanAmount

FROM Loans

WHERE EndDate BETWEEN cur\_date AND cur\_date + 30) LOOP

loan\_id := loan\_record.LoanID;

cust\_id := loan\_record.CustomerID;

end\_date := loan\_record.EndDate;

amt := loan\_record.LoanAmount;

SELECT Name INTO cust\_name FROM Customers WHERE CustomerID = cust\_id;

DBMS\_OUTPUT.PUT\_LINE('Reminder: Loan ID ' || loan\_id || ' of amount '|| amt ||' for customer ' || cust\_name || ' is due on ' || TO\_CHAR(end\_date, 'YYYY-MM-DD'));

END LOOP;

END;

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