**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  CURSOR cur\_customers IS  SELECT CustomerID, TRUNC(MONTHS\_BETWEEN(SYSDATE, DOB) / 12) AS Age  FROM Customers;    v\_customerID Customers.CustomerID%TYPE;  v\_age NUMBER; BEGIN  FOR customer\_rec IN cur\_customers LOOP  v\_customerID := customer\_rec.CustomerID;  v\_age := customer\_rec.Age;    IF v\_age > 60 THEN  UPDATE Loans  SET InterestRate = InterestRate - 1  WHERE CustomerID = v\_customerID;  END IF;  END LOOP;    COMMIT; 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.**

| ALTER TABLE Customers ADD (IsVIP CHAR(1)); DECLARE  CURSOR customer\_cursor IS  SELECT CustomerID, Balance  FROM Customers;   BEGIN  FOR customer\_record IN customer\_cursor LOOP  IF customer\_record.Balance > 10000 THEN  UPDATE Customers  SET IsVIP = 'Y'  WHERE CustomerID = customer\_record.CustomerID;    DBMS\_OUTPUT.PUT\_LINE('Promoted to VIP status for customer ID: ' || customer\_record.CustomerID);  ELSE  UPDATE Customers  SET IsVIP = 'N'  WHERE CustomerID = customer\_record.CustomerID;  END IF;  END LOOP; 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.**

| DECLARE  CURSOR loan\_cursor IS  SELECT l.LoanID, l.CustomerID, l.EndDate, c.Name  FROM Loans l  JOIN Customers c ON l.CustomerID = c.CustomerID  WHERE l.EndDate BETWEEN SYSDATE AND SYSDATE + 30;   BEGIN  FOR loan\_record IN loan\_cursor LOOP  DBMS\_OUTPUT.PUT\_LINE('Reminder: Loan ID ' || loan\_record.LoanID ||  ' for customer ' || loan\_record.Name ||  ' is due on ' || loan\_record.EndDate);  END LOOP; END; |
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