**Exercise 1: Control Structures**

**Scenario 1: Apply Discount to Loan Interest Rates**

**PL/SQL Block**:

DECLARE

v\_age NUMBER;

BEGIN

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

v\_age := TRUNC((SYSDATE - rec.DOB) / 365);

IF v\_age > 60 THEN

UPDATE Loans

SET InterestRate = InterestRate - 1

WHERE CustomerID = rec.CustomerID;

END IF;

END LOOP;

COMMIT;

END;

/

**Verification Query**:

SELECT \* FROM Loans;

**Sample Output**:

LOANID | CUSTOMERID | LOANAMOUNT | INTERESTRATE | STARTDATE | ENDDATE

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1 | 1 | 5000 | 4 | 2024-08-08 | 2029-08-08

**Scenario 2: Set VIP Status Based on Balance**

**PL/SQL Block**:

BEGIN

FOR rec IN (SELECT CustomerID, Balance FROM Customers) LOOP

IF rec.Balance > 10000 THEN

UPDATE Customers

SET IsVIP = 'Y'

WHERE CustomerID = rec.CustomerID;

ELSE

UPDATE Customers

SET IsVIP = 'N'

WHERE CustomerID = rec.CustomerID;

END IF;

END LOOP;

COMMIT;

END;

/

**Verification Query**:

SELECT CustomerID, Name, Balance, IsVIP FROM Customers;

**Sample Output**:

CUSTOMERID | NAME | BALANCE | ISVIP

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1 | John Doe | 1000 | N

2 | Jane Smith | 1500 | N

**Scenario 3: Send Reminders for Loans Due in 30 Days**

**PL/SQL Block**:

BEGIN

FOR rec IN (SELECT CustomerID, EndDate FROM Loans WHERE EndDate BETWEEN SYSDATE AND SYSDATE + 30) LOOP

DBMS\_OUTPUT.PUT\_LINE('Reminder: Loan for Customer ' || rec.CustomerID || ' is due on ' || rec.EndDate);

END LOOP;

END;

/

**Sample Output**:

Reminder: Loan for Customer 1 is due on 2024-09-08