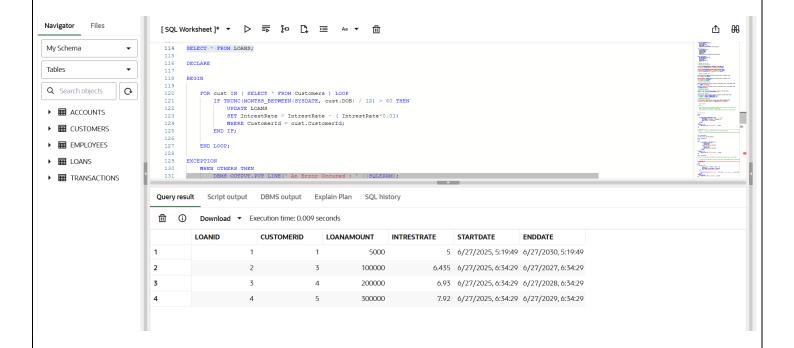
CONTROL STRUCTURES:

EXERCISE 1:

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 age above 60, apply a 1% discount to their current loan interest rates.

SELECT * FROM LOANS;



Before applying a 1% discount to the interest rates for customers above the age of 60.

DECLARE

```
BEGIN
```

```
FOR cust IN ( SELECT * FROM Customers ) LOOP

IF TRUNC(MONTHS_BETWEEN(SYSDATE, cust.DOB)/12)>60 THEN

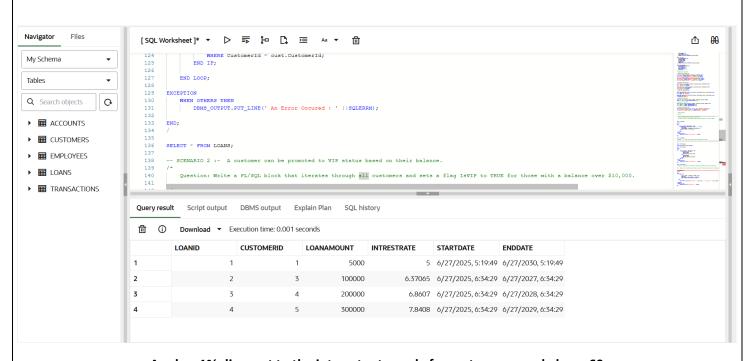
UPDATE LOANS
SET IntrestRate=IntrestRate-( IntrestRate*0.01)
WHERE CustomerId=cust.CustomerId;
END IF;
END LOOP;

EXCEPTION

WHEN OTHERS THEN
DBMS_OUTPUT.PUT_LINE(' An Error Occured: ' | | SQLERRM);

END;
/
```

SELECT * FROM LOANS;

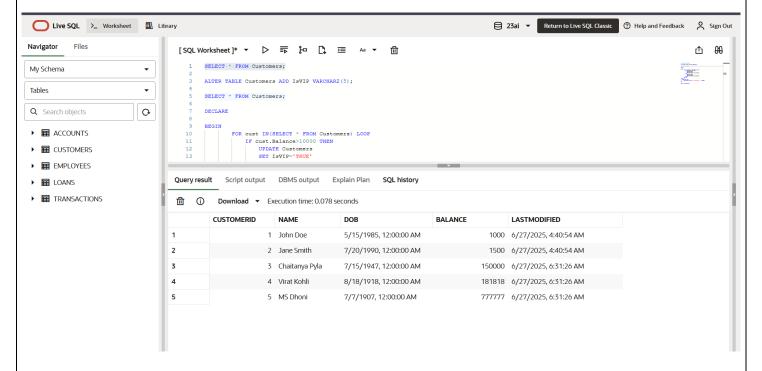


Apply a 1% discount to the interest rates only for customers aged above 60.

Scenario 2: A customer can be promoted to VIP status based on their balance.

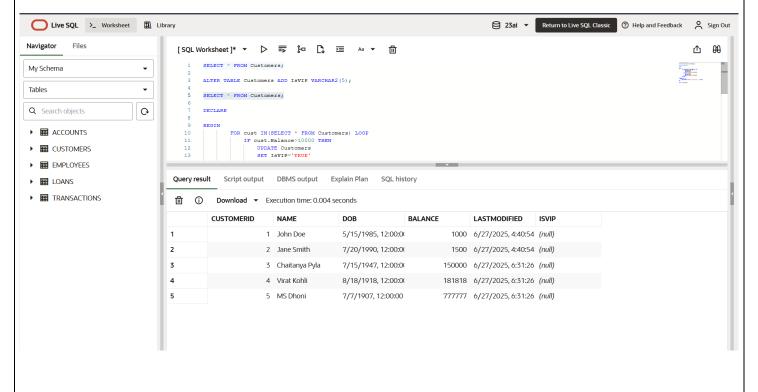
Question: Write a PL/SQL block that iterates through all customers and sets a flag IsVIP to TRUE for those with a balance over \$10,000.

SELECT * FROM Customers;

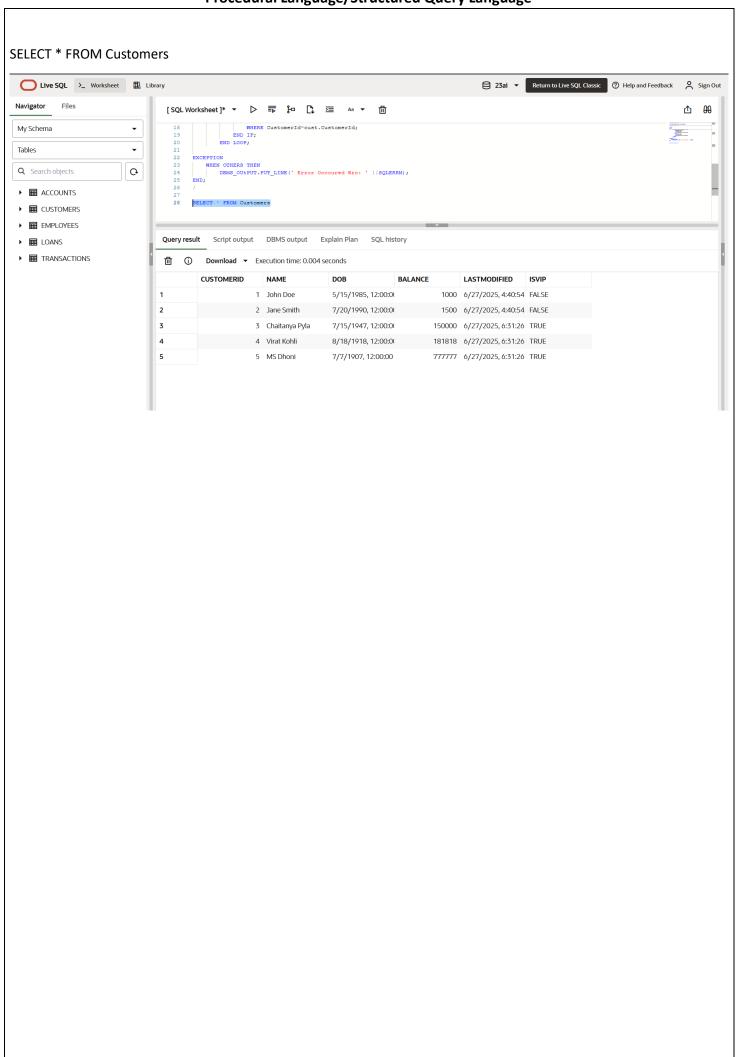


ALTER TABLE Customers ADD IsVIP VARCHAR2(5);

SELECT * FROM Customers;



```
DECLARE
BEGIN
     FOR cust IN(SELECT * FROM Customers) LOOP
        IF cust.Balance>10000 THEN
           UPDATE Customers
           SET IsVIP='TRUE'
           WHERE CustomerId=cust.CustomerId;
        ELSE
           UPDATE Customers
           SET IsVIP='FALSE'
           WHERE CustomerId=cust.CustomerId;
        END IF;
     END LOOP;
EXCEPTION
  WHEN OTHERS THEN
     DBMS_OUtPUT.PUT_LINE(' Error Occoured Bro: ' | |SQLERRM);
END;
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                                 [SQL Worksheet]* ▼ ▷ ➡ ြ ☐   ☐ Aa ▼ ☐
                                                                                                                                               WHERE CustomerId=cust.CustomerId;
END IF;
                                                                                                                                            'RM'
 My Schema
 Tables
                                       WHEN OTHERS THEN
DBMS_OUTPUT_LINE(' Error Occoured Bro: ' ||SQLERRM);
 Q Search objects
                         G
  ► ■ ACCOUNTS
                                      SELECT * FROM Customers
  ▶ ■ CUSTOMERS
  ► ■ EMPLOYEES
                                Query result Script output DBMS output Explain Plan SQL history
  ► ■ TRANSACTIONS
                                ☆ 坐
                                                                                                                                                  [<u></u>
                                Table CUSTOMERS altered.
                                Elapsed: 00:00:00.031
                                SOL> DECLARE
                                                                                                                                                  [
                                   BEGIN
                                        FOR cust IN(SELECT * FROM Customers) LOOP...
                                {\sf PL/SQL}\ {\sf procedure}\ {\sf successfully}\ {\sf completed}.
                                Elapsed: 00:00:00.019
```



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.

```
BEGIN

FOR loan_rec IN
```

SELECT I.LoanId, I.CustomerId, I.EndDate, c.Name

FROM Loans I

SET SERVEROUTPUT ON;

JOIN Customers c ON I.CustomerId = c.CustomerId

WHERE I.EndDate BETWEEN **SYSDATE** AND **SYSDATE** + 30

LOOP

)

DBMS_OUTPUT_LINE('Reminder: Hello Sir' || loan_rec.Name || ', your loan (ID: ' || loan_rec.LoanId |') is due on ' || TO_CHAR(loan_rec.EndDate, 'DD-MON-YYYY') || '.');

```
END LOOP;
EXCEPTION
```

WHEN OTHERS THEN

DBMS_OUTPUT.PUT_LINE('Error Occurred: ' || SQLERRM);

END;

