**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.

**Code :**

BEGIN

FOR loan\_rec IN ( SELECT l.loanid, l.interestrate, c.age FROM Loans l JOIN Customers c ON l.loanid = c.customerid )

LOOP

IF loan\_rec.age > 60 THEN

UPDATE Loans

SET interestrate = interestrate - 1

WHERE loanid = loan\_rec.loanid;

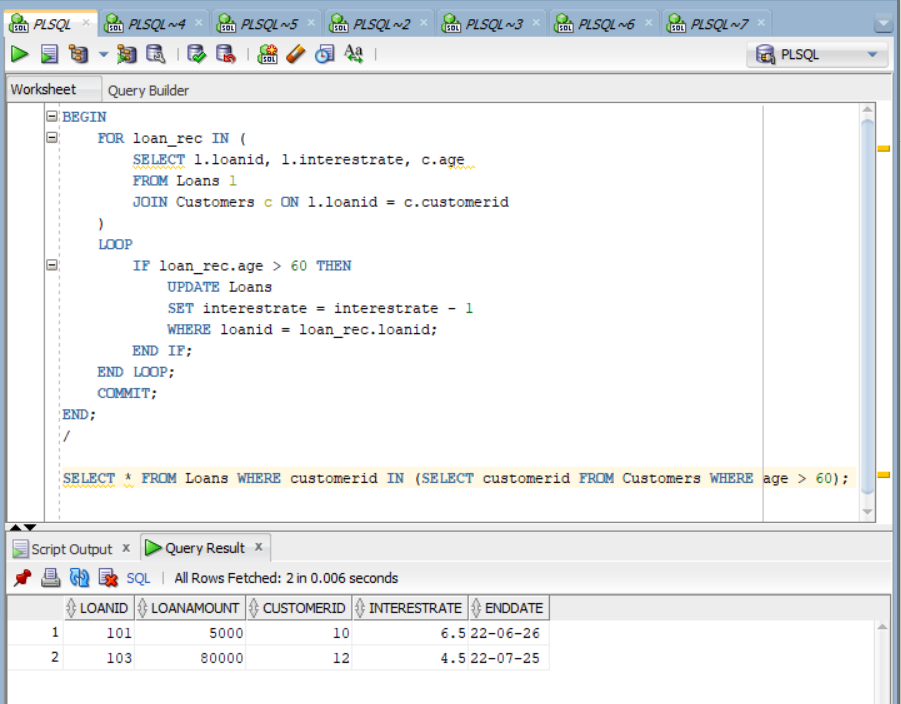
END IF;

END LOOP;

COMMIT;

END;

/

**OUTPUT:**

**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.

**Code :**

BEGIN

FOR cust\_rec IN ( SELECT customerid, balance FROM Customers)

LOOP

IF cust\_rec.balance > 10000 THEN

UPDATE Customers

SET is\_vip = 'Y'

WHERE customerid = cust\_rec.customerid;

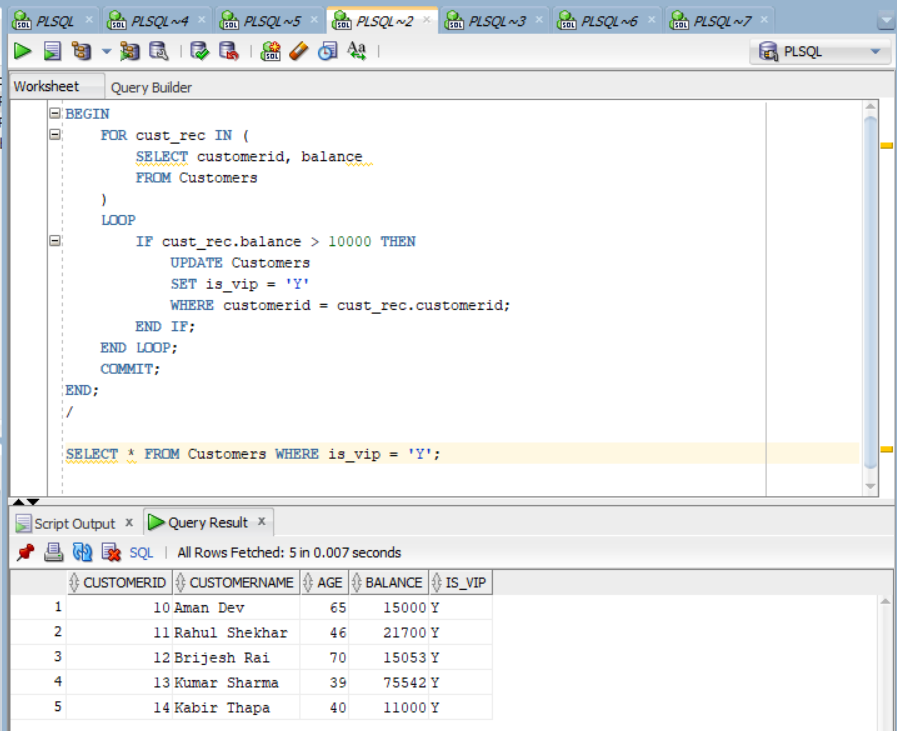
END IF;

END LOOP;

COMMIT;

END;

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**** **OUTPUT:**

**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

**Code:**BEGIN

FOR loan\_rec IN ( SELECT l.loanid, c.customername, l.enddate FROM Loans l JOIN Customers c ON l.customerid = c.customerid WHERE l.enddate BETWEEN SYSDATE AND SYSDATE + 30 )

LOOP

DBMS\_OUTPUT.PUT\_LINE('Reminder: Loan ' || loan\_rec.loanid ||

' for customer ' || loan\_rec.customername ||

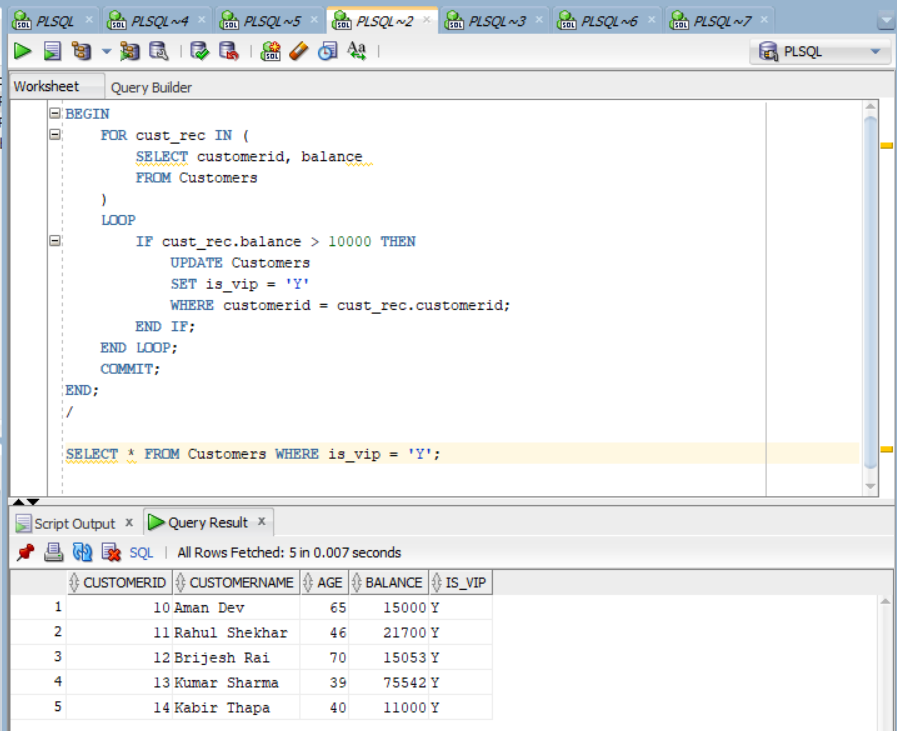
' is due on ' || TO\_CHAR(loan\_rec.enddate, 'DD-MON-YYYY'));

END LOOP;

END;

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**OUTPUT:**

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