**PL/SQL PROGRAMMING**

**Exercise 1: Control Structures**

**Code:**

**-- Scenario 1: Apply 1% Interest Discount for Customers > 60**

BEGIN

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

IF MONTHS\_BETWEEN(SYSDATE, c.DOB) / 12 > 60 THEN

UPDATE Loans

SET InterestRate = InterestRate - 1

WHERE CustomerID = c.CustomerID;

END IF;

END LOOP;

COMMIT;

END;

/

**-- Scenario 2: Set IsVIP Flag for High Balance Customers**

ALTER TABLE Customers ADD IsVIP CHAR(1);

BEGIN

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

IF c.Balance > 10000 THEN

UPDATE Customers

SET IsVIP = 'Y'

WHERE CustomerID = c.CustomerID;

END IF;

END LOOP;

COMMIT;

END;

/

**--Scenario 3: Remind Customers with Loans Due in Next 30 Days**

BEGIN

FOR l IN (

SELECT

LoanID,

c.Name AS cust\_name,

EndDate

FROM

Loans l

JOIN Customers c ON l.CustomerID = c.CustomerID

WHERE

EndDate <= SYSDATE + 30

) LOOP

DBMS\_OUTPUT.PUT\_LINE(

'Reminder: Loan ID ' || l.LoanID ||

' for customer ' || l.cust\_name ||

' is due on ' || TO\_CHAR(l.EndDate, 'YYYY-MM-DD')

);

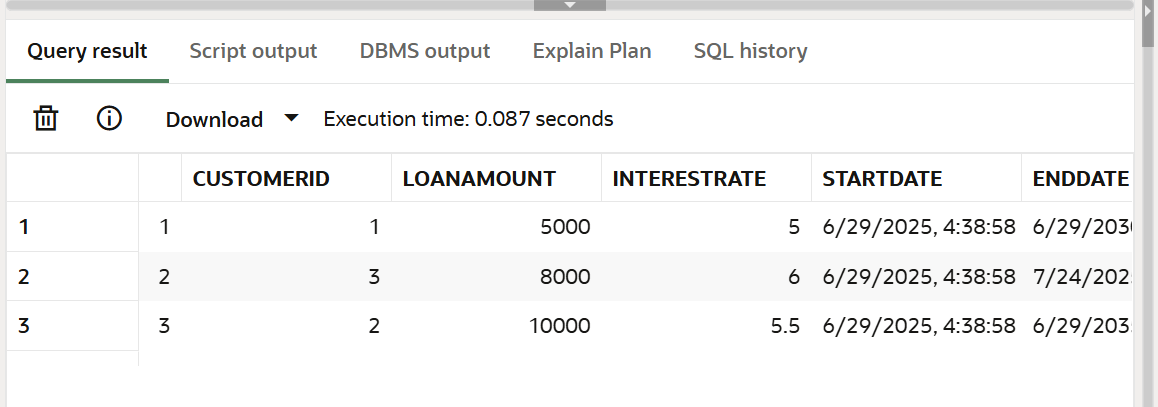
END LOOP;

END;

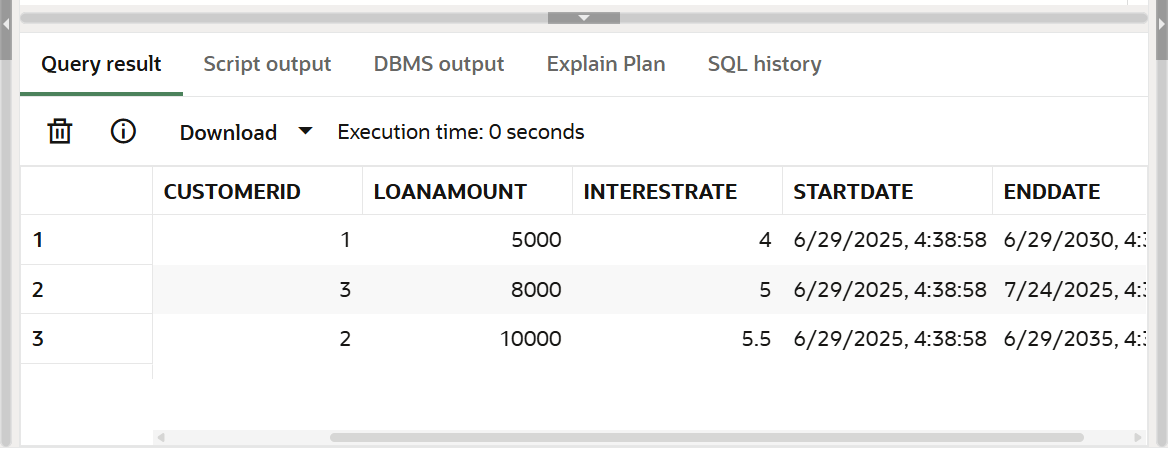
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**Output Screenshots :**

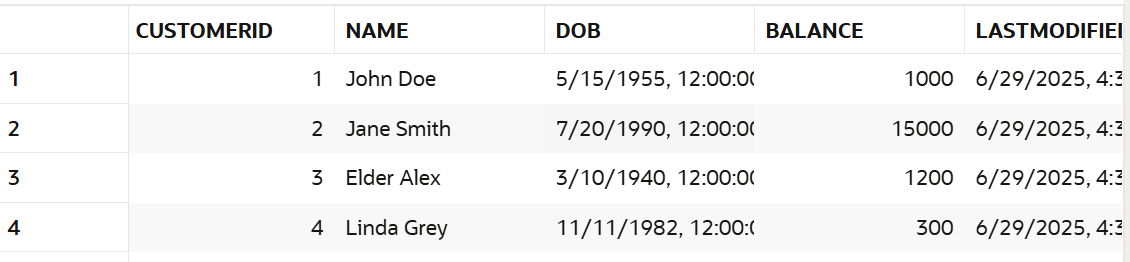
Loan table before scenario1:



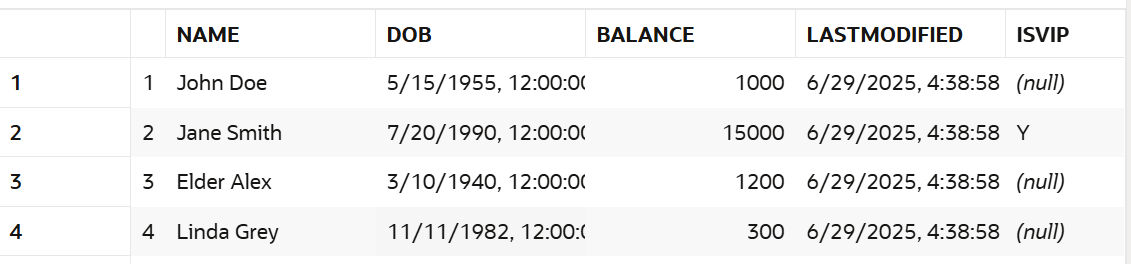
Loan table after scenario 1:



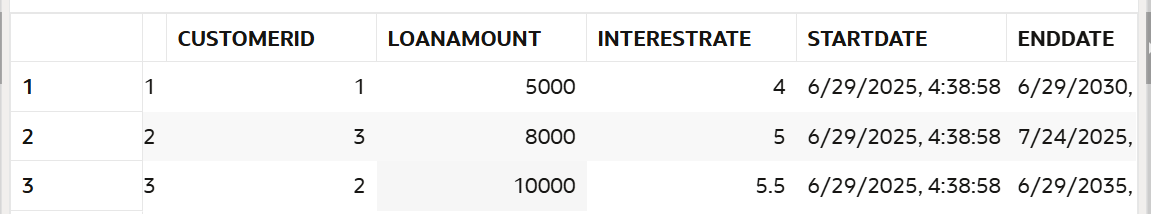
Customer table before scenario 2:

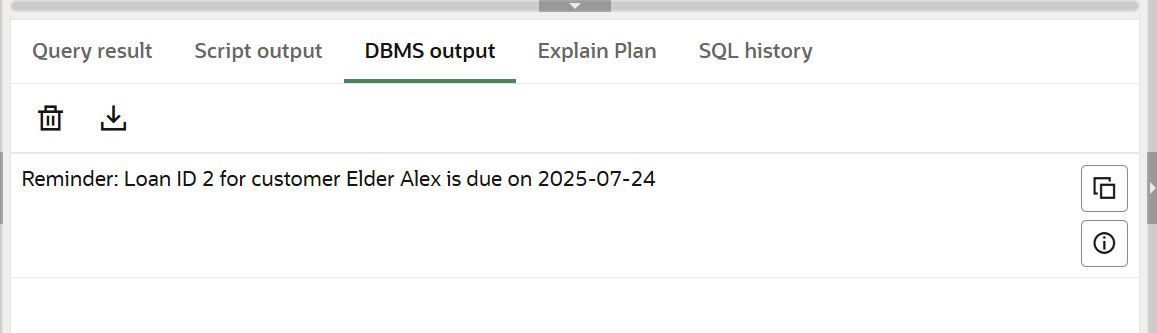


Customer table after scenario 2:



Scenario 3:





Thus, the table with given schema has been created with sample records and PL/SQL blocks have been executed successfully.