**Exercise 6: Cursors**

DECLARE

    CURSOR txn\_cursor IS

        SELECT t.AccountID, a.HolderName, t.Amount, t.Type, t.TransactionDate FROM Transactions t JOIN Accounts a ON t.AccountID=a.AccountID

        WHERE TRUNC(t.TransactionDate, 'MM') = TRUNC(SYSDATE, 'MM');

    v\_txn txn\_cursor%ROWTYPE;

BEGIN

    OPEN txn\_cursor;

    LOOP

        FETCH txn\_cursor INTO v\_txn;

        EXIT WHEN txn\_cursor%NOTFOUND;

        DBMS\_OUTPUT.PUT\_LINE('Customer: '||v\_txn.HolderName|| ' | Date: '||v\_txn.TransactionDate|| ' | Type: '||v\_txn.Type|| ' | Amount: '||v\_txn.Amount);

    END LOOP;

    CLOSE txn\_cursor;

END;

DECLARE

    CURSOR acc\_cursor IS SELECT AccountID, Balance FROM Accounts;

    v\_account acc\_cursor%ROWTYPE;

    v\_fee NUMBER:=500;

BEGIN

    OPEN acc\_cursor;

    LOOP

        FETCH acc\_cursor INTO v\_account;

        EXIT WHEN acc\_cursor%NOTFOUND;

        UPDATE Accounts

        SET Balance=Balance-v\_fee

        WHERE AccountID=v\_account.AccountID;

        DBMS\_OUTPUT.PUT\_LINE('Fee deducted from Account ID: '||v\_account.AccountID);

    END LOOP;

    CLOSE acc\_cursor;

    COMMIT;

END;

CREATE TABLE Loans(LoanID NUMBER PRIMARY KEY,CustomerID NUMBER,Amount NUMBER,InterestRate NUMBER);

DECLARE

    CURSOR loan\_cursor IS SELECT LoanID, Amount FROM Loans;

    v\_loan loan\_cursor%ROWTYPE;

    v\_new\_rate NUMBER;

BEGIN

    OPEN loan\_cursor;

    LOOP

        FETCH loan\_cursor INTO v\_loan;

        EXIT WHEN loan\_cursor%NOTFOUND;

        IF v\_loan.Amount>100000 THEN

            v\_new\_rate:=7;

        ELSE

            v\_new\_rate:=8.5;

        END IF;

        UPDATE Loans

        SET InterestRate=v\_new\_rate

        WHERE LoanID=v\_loan.LoanID;

        DBMS\_OUTPUT.PUT\_LINE('Loan '||v\_loan.LoanID|| ' updated to '||v\_new\_rate|| '%');

    END LOOP;

    CLOSE loan\_cursor;

    COMMIT;

END;

INSERT INTO Loans VALUES(1,101,80000,9);

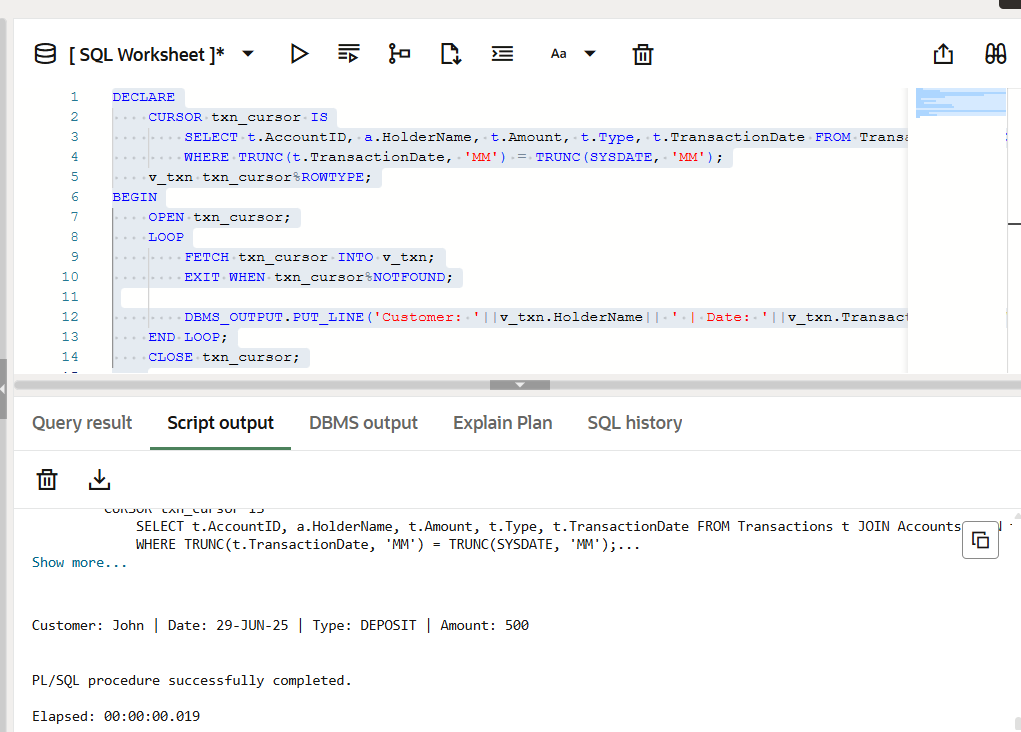
INSERT INTO Loans VALUES(2,102,150000,9);

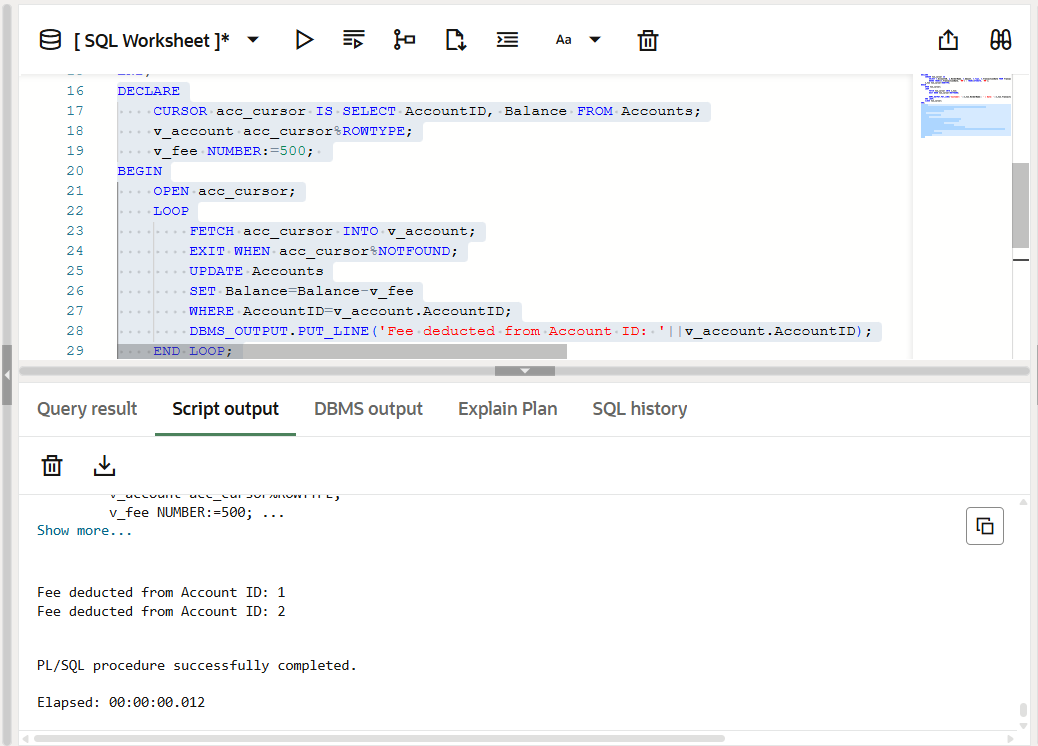
INSERT INTO Loans VALUES(3,103,95000,9);

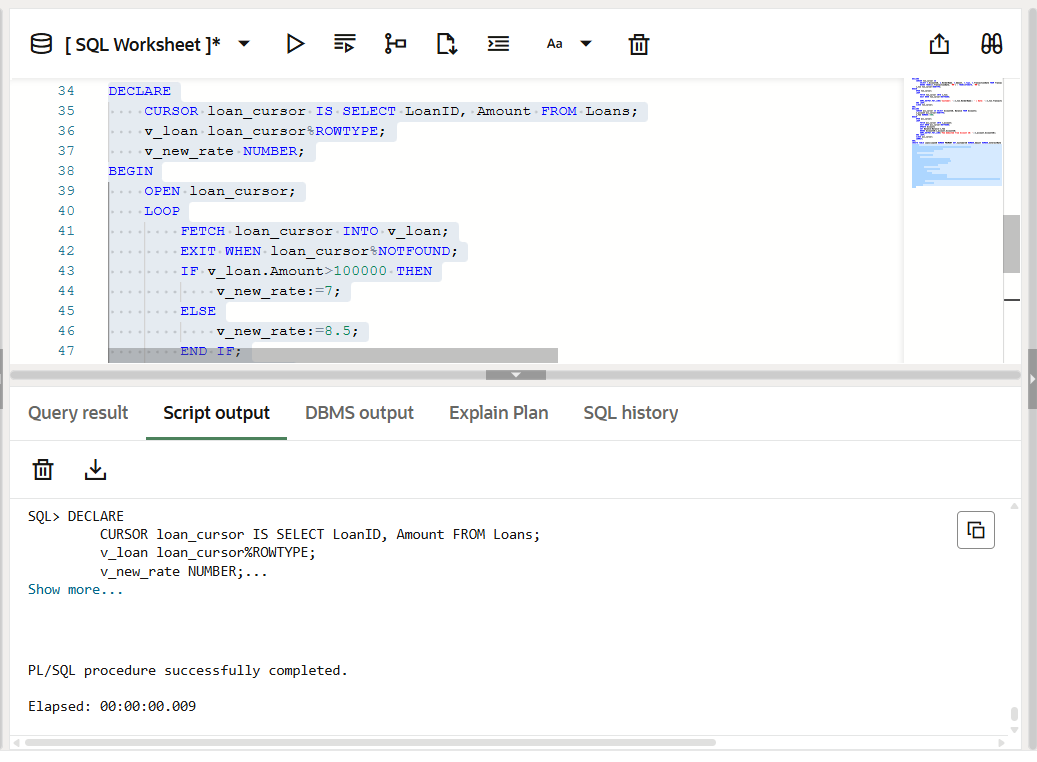
COMMIT;

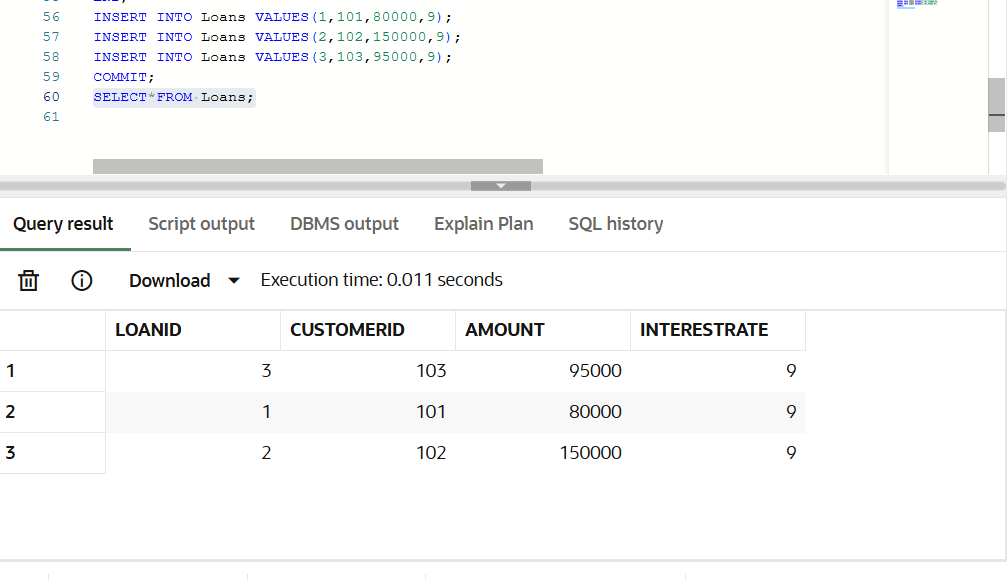
SELECT\*FROM Loans;

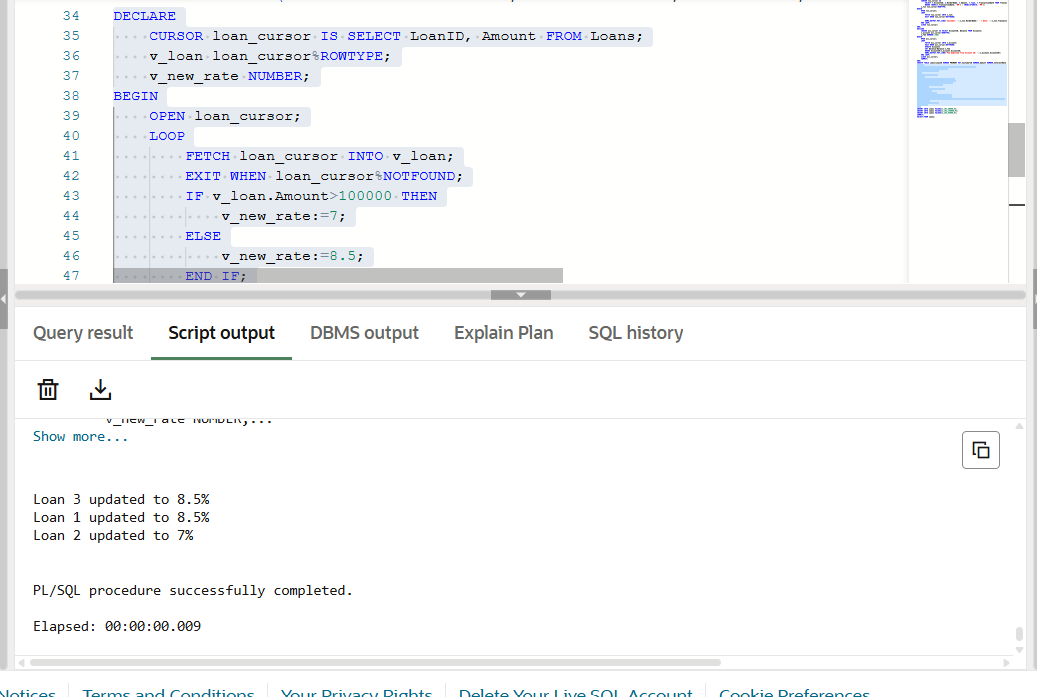
**Output:**

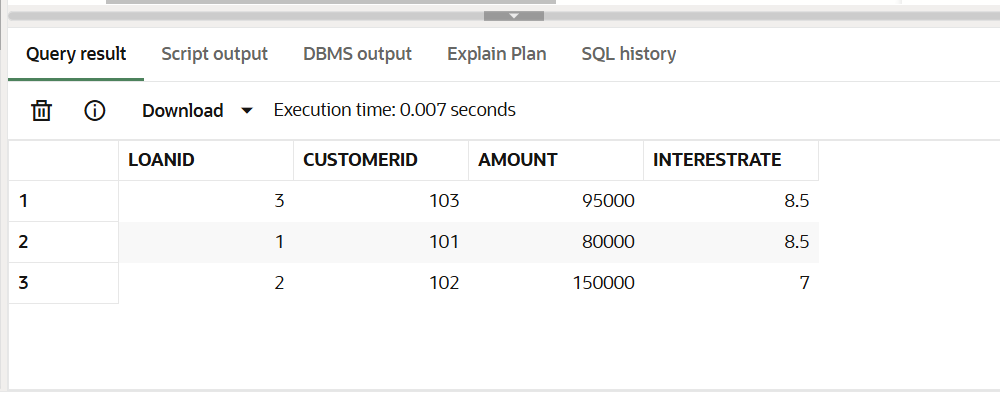
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