**Control Structures**

Program:

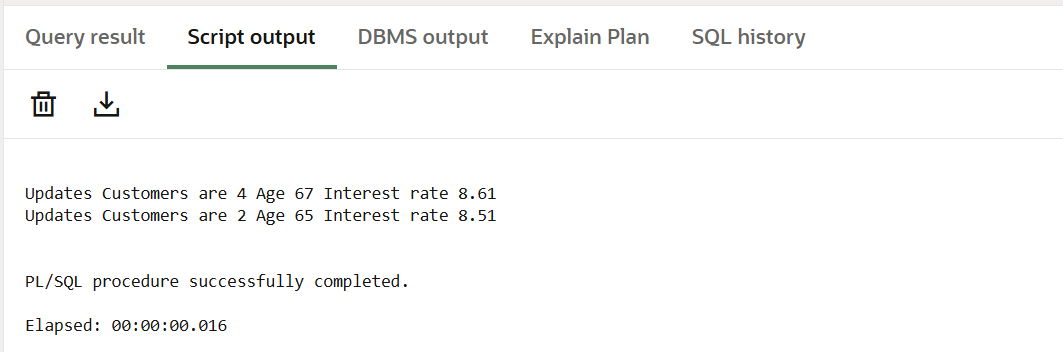
Scenario 1:

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

1. SET SERVEROUTPUT ON
2. DECLARE
3. n\_Customer\_id  Bank.customer\_id%TYPE;
4. n\_age          Bank.age%TYPE;
5. n\_oldRate      Bank.interest\_rate%TYPE;
6. n\_newRate      Bank.INTEREST\_RATE%TYPE;
7. BEGIN
8. FOR records IN(
9. SELECT customer\_id , age , interest\_rate
10. FROM Bank
11. WHERE age > 60
12. ) LOOP
13. n\_Customer\_id := records.customer\_id;
14. n\_age := records.age;
15. n\_oldRate := records.interest\_rate;
16. n\_newRate := n\_oldRate - (n\_oldRate \* 0.01);
17. UPDATE Bank
18. SET interest\_rate = n\_newRate
19. WHERE customer\_id = n\_Customer\_id;
20. DBMS\_OUTPUT.put\_line('Updates Customers are ' || n\_Customer\_id || ' Age ' || n\_age || ' Interest rate ' || n\_newRate);
21. END LOOP;
22. COMMIT;
23. END;
24. /

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.

BEGIN

    for records in (

        SELECT customer\_id, balance

        FROM CUSTOMER

    ) LOOP

        IF records.balance > 10000 THEN

                UPDATE CUSTOMER

                SET status = 'VIP'

                WHERE records.balance > 10000;

                DBMS\_OUTPUT.PUT\_LINE('The customer ' || records.customer\_id || ' is set to VIP');

        ELSE

            UPDATE CUSTOMER

            SET status = 'REGULAR'

            WHERE records.balance <= 10000;

            DBMS\_OUTPUT.PUT\_Line('The customer ' || records.customer\_id || ' is a regular customer');

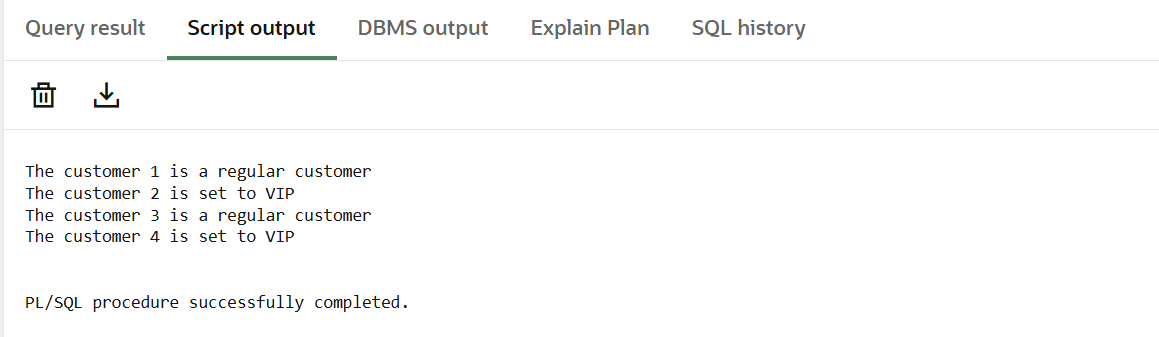
        END IF;

        END LOOP;

        COMMIT;

        END;

        /



**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.

Program:

DECLARE

    n\_loan\_id Loans.LOAN\_ID%TYPE;

    n\_name Loans.NAME%TYPE;

    n\_amount Loans.AMOUNT%TYPE;

    n\_due\_data Loans.DUE\_DATA%TYPE;

BEGIN

    FOR records in(SELECT loan\_id, name , amount , due\_data

    FROM Loans

    WHERE due\_data between SYSDATE AND SYSDATE + 30

    )LOOP

        n\_loan\_id := records.loan\_id;

        n\_name := records.name;

        n\_amount := records.amount;

        n\_due\_data := records.due\_data;

    dbms\_output.put\_line('The customer :' || n\_loan\_id || ' whose name is ' || n\_name || ' has to pay ' || n\_amount || ' within the next thirty days');

END LOOP;

END;

/

