**CURSORS.**

**Scenario 1:** Generate monthly statements for all customers.

* + Question: Write a PL/SQL block using an explicit cursor GenerateMonthlyStatements that retrieves all transactions for the current month and prints a statement for each customer.

**SOLUTION:**

**Query:**

declare

cursor GenerateMonthlyStatements is select transactionid,accountid,transactiondate,amount from transactions where trunc(transactiondate,'MM')=trunc(sysdate,'MM');

t\_transid transactions.transactionid%type;

t\_accid transactions.accountid%type;

t\_date transactions.transactiondate%type;

t\_amo transactions.amount%type;

begin

    open GenerateMonthlyStatements;

    loop

        fetch GenerateMonthlyStatements into t\_transid,t\_accid,t\_date,t\_amo;

        exit when GenerateMonthlyStatements%NOTFOUND;

        dbms\_output.put\_line('MONTHLY STATEMENT OF CUSTOMER WITH ACCOUNTID: '||t\_accid);

        dbms\_output.put\_line('TRANSACTIONID: '||t\_transid);

        dbms\_output.put\_line('TRANSACTIONDATE: '||t\_date);

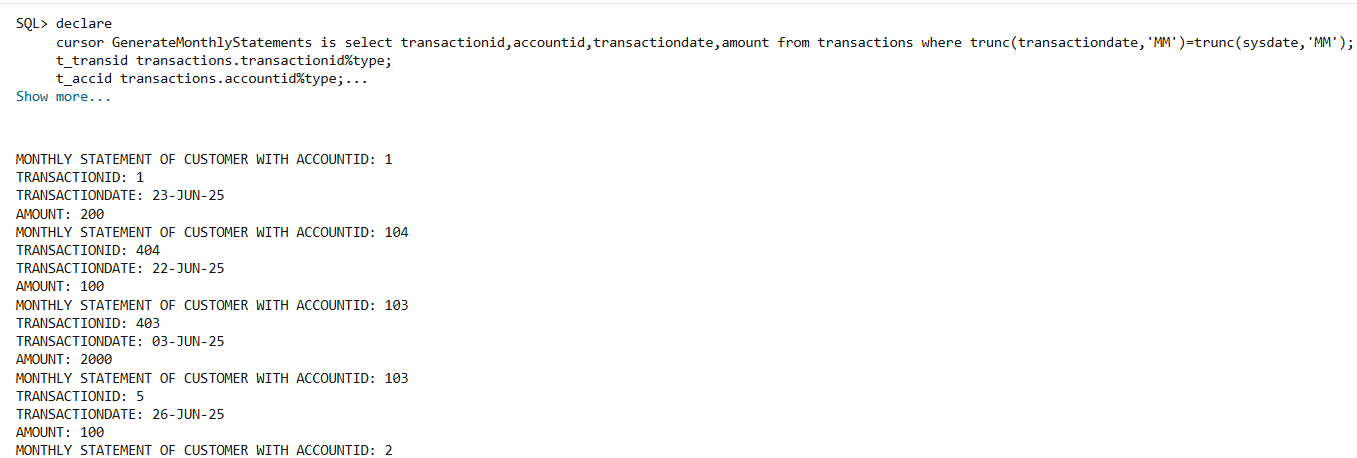
        dbms\_output.put\_line('AMOUNT: '||t\_amo);

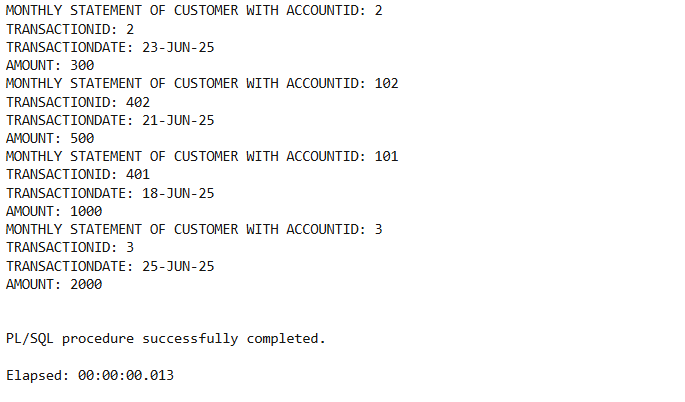
    end loop;

    close GenerateMonthlyStatements;

end;

**Output:**





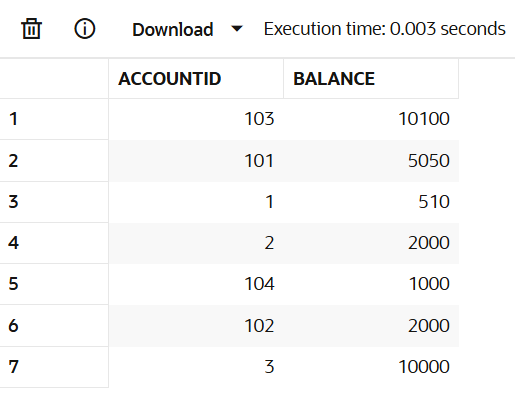
**Scenario 2:** Apply annual fee to all accounts.

* + Question: Write a PL/SQL block using an explicit cursor ApplyAnnualFee that deducts an annual maintenance fee from the balance of all accounts.

**SOLUTION:**

Query: select accountid,balance from accounts;

Output:



**Query:**

declare

cursor ApplyAnnualFee is select accountid from accounts;

a\_id accounts.accountid%type;

annual\_maintain\_fee number:=100;

begin

    open ApplyAnnualFee;

    loop

        fetch ApplyAnnualFee into a\_id;

        exit when ApplyAnnualFee%NOTFOUND;

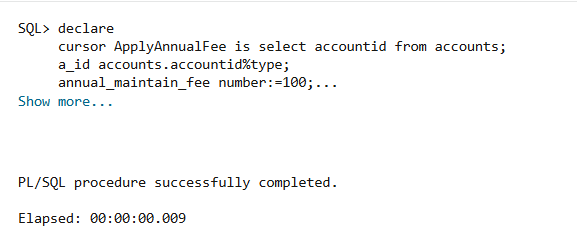
        update accounts set balance=balance-annual\_maintain\_fee where accountid=a\_id;

    end loop;

    close ApplyAnnualFee;

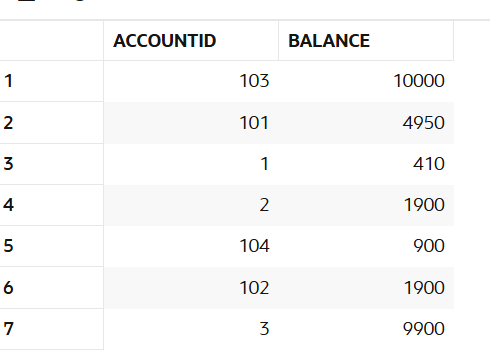
end;

**Output:**



**Query:** select accountid,balance from accounts;

**Output:**



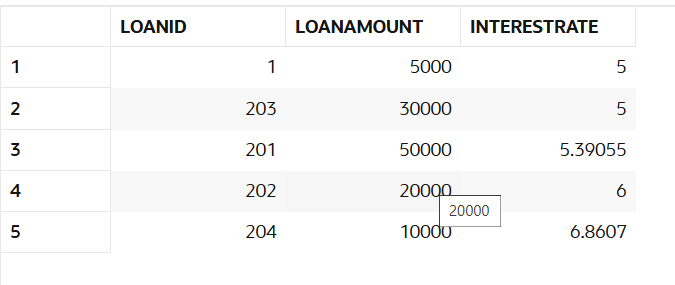
**Scenario 3:** Update the interest rate for all loans based on a new policy.

* + Question: Write a PL/SQL block using an explicit cursor UpdateLoanInterestRates that fetches all loans and updates their interest rates based on the new policy.

**SOLUTION:**

**Query:** select loanid,loanamount,interestrate from loans;

**Output:**



**Query:**

declare

cursor UpdateLoanInterestRates is select loanid,loanamount,interestrate from loans;

l\_rate loans.interestrate%type;

l\_amount loans.loanamount%type;

l\_id loans.loanid%type;

begin

    open UpdateLoanInterestRates;

    loop

        fetch UpdateLoanInterestRates into l\_id,l\_amount,l\_rate;

        exit when UpdateLoanInterestRates%NOTFOUND;

        if l\_amount>10000 then

        update loans set interestrate=interestrate-1 where loanid=l\_id;

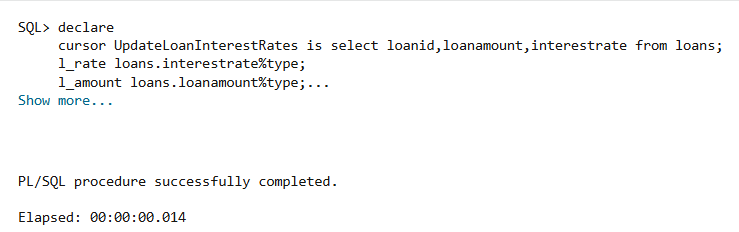
        end if;

    end loop;

    close UpdateLoanInterestRates;

end;

**Output:**



**Query:** select loanid,loanamount,interestrate from loans;

**Output:**

