Lab Prgm 5

WAP to create a class Bank that maintains two kinds of accoun for its customers, one called savings account and the other current account. The savings account provides compound interest and withd facilities but no cheque book facility. The current account provides cheque book facility but no ~~[illegible]~~ ~~interest~~ interest. Current account holders should also maintain a minimum balance and if the balance falls below this level, a service charge is imposed. Create a class Account that stores customer name, acc number and type of account. From this deri the classes cur_acct and sav-acct to make them more specific to the requirements. Include the necessary methods in order to achieve the following tasks:

a) Accept deposit from ~~a~~ customer and update the balance

b) Display the balance

c) Compute and deposit interest

d) Permit withdrawal and update balace

Check for minimum balance, impose penalty and update the balace

```
import java.util.Scanner;
import java.lang.Math;
class Account
   {
        String name, acc_type;
        int acc_no;
        double bal, dep;
        Scanner ss = new Scanner(System.in);
```

```
void setd()
  {
    System.out.println ("Enter your name:\n");
     name = ss.next();
    System.out.println ("Enter your account number");
     acc-no = ss.nextInt();
     System.out.println ("Enter your account type : (Savings or Current)\n")
      acc_type = ss.nextInt();
      System.out.println ("Enter the bank balance :\n");
        bal=ss.nextDouble();

 }
void disp()
  {
    System.out.println ( "Name : " +name);
    System.out.println (" Account No : "+ acc_no);
    System.out.println ( "Account type : "+ acc-type);
    System.out.println ("Current balance is: "+ bal);
 }
void deposit()
   {
     System.out.println ("Entr the amt to be deposited: ");
      dep = ss.nextDouble();
       bal+ = dep;
       System.out. println (" Balance account : +bal ).
    }

   boolean acc (String acc-type)
     {
      if (acc-type = = "Savings")
          return true;
    else if (acc-type== "Current")
        return false
    else
      return true ;
   }

}

class Cur_acct extends Account
     {
       int penal()
       { double min, pen;
         System.out.println("\n Enter minimum balance & penalty amount
                                 if not followed:");

         min=ss.nextDouble();
         pen =ss.nextDouble();

       if (bal <min)
        {
          bal - = pen;
          System.out.println("Penalty imposed for having insufficient
                                ~~Blace~~ balance");
        }
       else
         return 1;
       }
    void  withdrawal()
        { double amt;
        System.out.println("Enter the amount to be withdrawn :");
          amt = ss.nextDouble();
          int a = penal();
```

```
if(a==1)
 {
   if(bal>=amt)
   {
     bal-=amt
     System.out.println("Account Balance after withdrawl is:"+bal);
   }
 }
 else
  System.out.println("\n The amount can't be withdrawn");
 }
}

class Sav_acct extends Account
  {
     void calc_interest()
     {
      System.out.println(" Enter time and rate of interst");
       double t= ss.nextDouble();
       double r= ss.next Double();
       double CI = bal * Math.pow((1+r)/100),t);
       System.out.println("\n Compaund Intrest is:"+CI);
          bal+=CI;
       System.out.println(" Balance amount:"+bal);
     }
   void withdrawl()
    {
     double amt;
    System.out.println(" Enter amount to be withdrawn:");
     amt=ss.nextDouble();
```

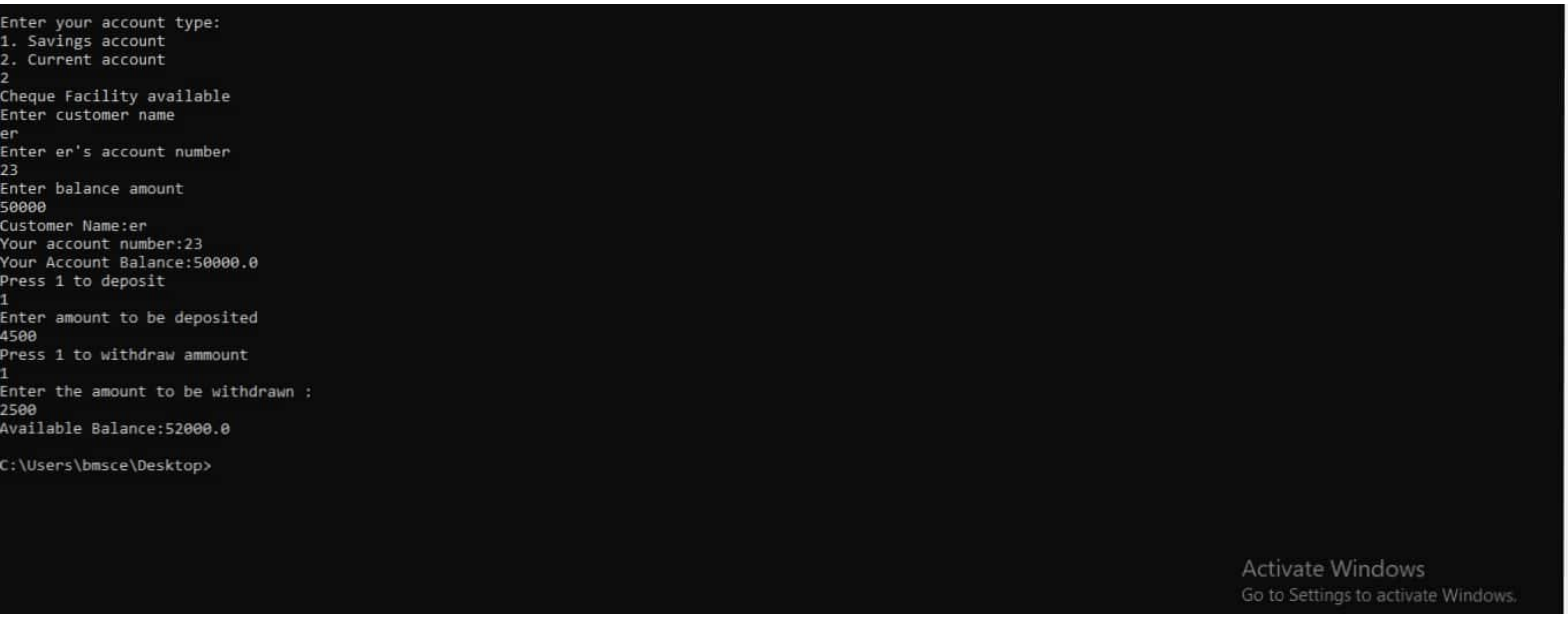
```
        if (bal >= amt)
        {
            bal -= amt;
            System.out.println(" Account balance after withdrawal is:: " + bal);
        }
    }
    else
      System.out.println(" \n the amount cannot be withdrawn ");
  }
}

class Bank
 {
  public static void main(String arr[])
  {
    Scanner ss = new Scanner(System.in);
    Accont a1 = new Account();
    a1.setd();
  if (a1.acc(a1.acc_tyne) == true)
   {
    Sav acct s1 = new Sv_acct();
        s1.name = a1.name;  s1.acc_no = a1.acc_no;
        s1.acc_tyne = a1.acc_tyle;  s1.bal = a1.bal;
      System.out.print(" Enth your choice: \n 1. Deposit \n 2. Calculatin
                     3 Withdrawal \n 4. Display \n 5. Exit ");
```

```
int ch= ss.nextInt();
switch(ch)
{
   case 1: s1.deposit(); break;
   case 2: s1.cal-interest(); break;
   case 3: s1.withdrawal(); break;
   case 4: s1.disp(); break;
   case 5: exit(0); break;
   default: System.out.println("Invalid Input");
 }
}
else
{
 cur-acct c1= new cur-acct();
  c1.name = a1.name; c1.accno = a1.acc_no;
  c1.acc-type =a1.acc-type; c1.bal=a1.bal;
  System.out.println("\n Enter your choice :\n 1.Deposit \n 2.Penalty
     check \n 3.Withdraw \n 4.1 Display \n 5.Exit ");
   int ch=ss.nextInt();
   switch(ch)
        {
         case 1: c1.deposit(); break;
         case 2: c1. penal(); break;
         case 3: c1. withdrawal(); break;
         case 4: exit(0); break;
         default: System.out.println("Invalid Input");
        }
 }
}
```

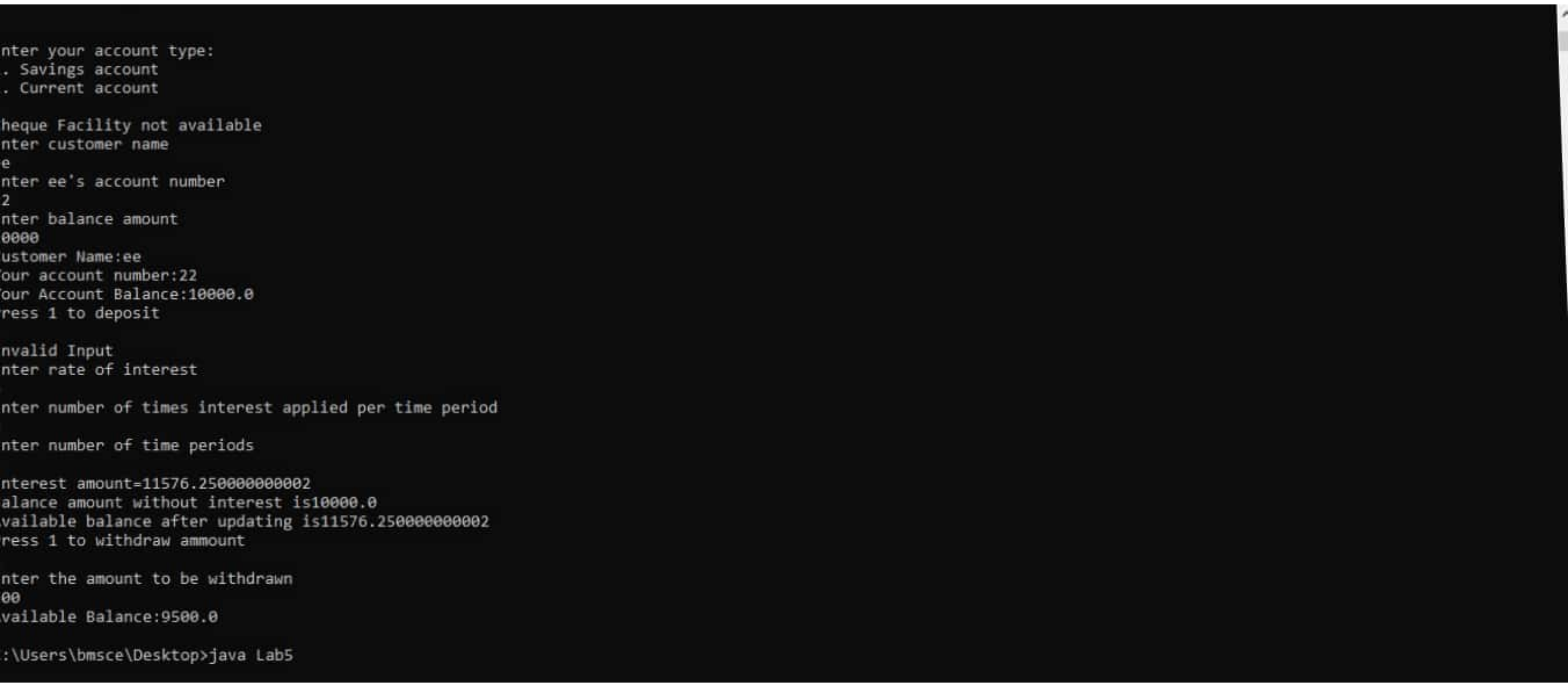
```
Enter your account type (1. Savings or 2: Current)
~~2~~ Current
Enter your name
John
Enter your account number
2222
Enter the Bank Balance
50000
Enter your choice
  1. Deposit
  2. Calculate Interest
  3. Withdraw
  4. Display
  5. Exit
1
Enter the amount to be ~~withdrawn~~: deposite
 5000
Acount Balance after ~~withdrawn~~ deposit is :55~~0~~000
 Enter your choice :
  1. Deposit
  2. Calculate interest
  3. Withdraw
  4. Display
 3. Exit
 3
 Enter amount to be withdrawn:
  3000
Account Balace after withdrawal is : 50000
```

```
Enter your accont type (Savings or Current)
Current
Enter your name
JJ
Enter account number
24531
Enter Balance amount
50000
Enter your choice
1. Deposit
2. Benefits
3. Withdraw
4. Display
5. Exit
1
Enter amount to be deposited
3000
Balance = 53000
```



```
Enter your account type:
1. Savings account
2. Current account
2
Cheque Facility available
Enter customer name
er
Enter er's account number
23
Enter balance amount
50000
Customer Name:er
Your account number:23
Your Account Balance:50000.0
Press 1 to deposit
1
Enter amount to be deposited
4500
Press 1 to withdraw ammount
1
Enter the amount to be withdrawn :
2500
Available Balance:52000.0

C:\Users\bmsce\Desktop>
```



```
nter your account type:
. Savings account
. Current account

heque Facility not available
nter customer name
e
nter ee's account number
2
nter balance amount
0000
ustomer Name:ee
'our account number:22
'our Account Balance:10000.0
ress 1 to deposit

nvalid Input
nter rate of interest

nter number of times interest applied per time period

nter number of time periods

nterest amount=11576.250000000002
alance amount without interest is10000.0
vailable balance after updating is11576.250000000002
ress 1 to withdraw ammount

nter the amount to be withdrawn
00
vailable Balance:9500.0

:\Users\bmsce\Desktop>java Lab5
```