QUESTION: Banking Program

Write a program to demonstrate the knowledge of students in Inheritance.
Eg: Assume that a bank maintains two kinds of accounts for customers, one called as savings account and the other as current account. The savings account provides compound interest and withdrawal facilities but no cheque book facility. The current account provides cheque book facility but no interest. Current account holders should 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, account number and type of account. From this derive the classes cur_acct and sav_acct to make them more specific to their requirements. Include necessary member functions 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 the balance.
e) Check for the minimum balance, impose penalty, necessary, and update the balance.

** Withdraw and Deposit should be a private member

** Initialize Basic Balance as static function variable

CODE:

```
import java.util.*;
  import java.lang.*;
  class Account
  {
     public String acc_name;
     public double acc_no;
     public int acc_type;
     public double balance;
     public void getdata(String name,double no,int type,double bal)
     {
```

```
        acc_name=name;
        acc_no=no;
        acc_type=type;
        balance=bal;
    }
}
class Savings extends Account
{
    public void deposit(double amt)
    {
        balance=balance+amt;
        System.out.println(balance);
    }
    public void withdraw(double amt)
    {
        balance=balance-amt;
        System.out.println(balance);
    }
    public void interest(int time,int no)
    {
        double intr=balance*(1+6/no);
        intr=Math.pow(intr,(time*no));
        System.out.println("Intertest calculated is"+intr);
```

```
        balance=balance+intr;
        System.out.println("The new balance is"+balance);
    }
}
class Current extends Account
{
    public void deposit(double amt)
    {
        balance=balance+amt;
        System.out.println(balance);
    }
    public void withdraw(double amt)
    {
        balance=balance-amt;
        System.out.println(balance);
        check(balance);
    }
    public void check(double amt)
    {
        if(amt<10000)
        {
            balance =balance-500;
            System.out.println("Insufficient Balance"+balance);
```

```
        }
    }

}
class Main
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        int temp=1;
        while(temp==1)
        {
                double amt=0;
                System.out.println("Enter name");
                sc.next();
                String name=sc.nextLine();
                System.out.println("Enter acc_no");
                double no=sc.nextDouble();
                System.out.println("Enter acc_type\n0 for Savings\n1 for Current");
                int type=sc.nextInt();
                do
                {
                   System.out.println("Enter balance");
```

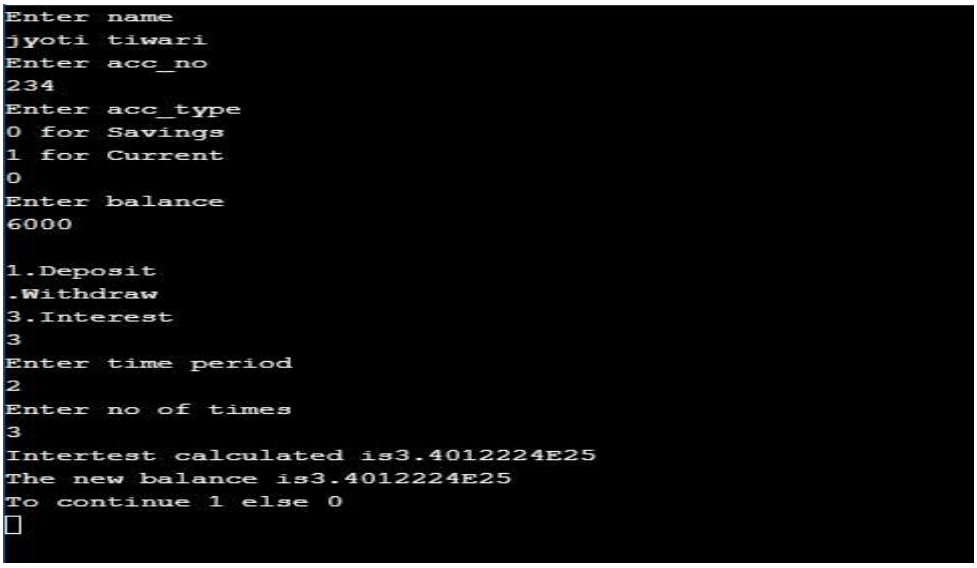
```
    amt=sc.nextDouble();
}while(type==1 && amt<10000);
if(type==0)
{
    Savings s=new Savings();
    s.getdata(name,no,type,amt);
    System.out.println("\n1.Deposit\n\2.Withdraw\n3.Interest");
    int temp3=sc.nextInt();
    if(temp3==1)
    {
        System.out.println("Enter Amoumt");
        double amt1=sc.nextDouble();
        s.deposit(amt1);
    }
    else if(temp3==2)
    {
        System.out.println("Enter Amoumt");
        double amt1=sc.nextDouble();
        s.withdraw(amt1);
    }
    else if(temp3==3)
    {
        System.out.println("Enter time period");
```

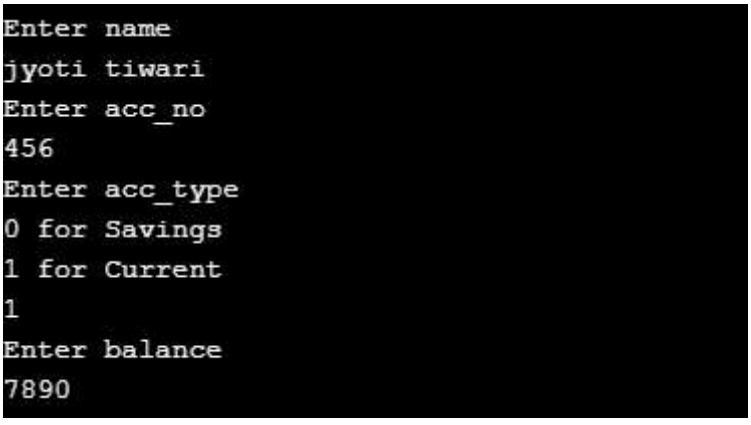
```
        int tp=sc.nextInt();
        System.out.println("Enter no of times");
        int nof=sc.nextInt();
        s.interest(tp,nof);
    }
}
else if(type==1)
{
    Current c=new Current();
    c.getdata(name,no,type,amt);
    System.out.println("\n1.Deposit\n\2.Withdraw");
    int temp3=sc.nextInt();
    if(temp3==1)
    {
        System.out.println("Enter Amoumt");
        double amt1=sc.nextDouble();
        c.deposit(amt1);
    }
    else if(temp3==2)
    {
        System.out.println("Enter Amoumt");
        double amt1=sc.nextDouble();
        c.withdraw(amt1);
```

```
                }


            }
            System.out.println("To continue 1 else 0");
            temp=sc.nextInt();
        }
    }
}
```

OUTPUT:





```
Enter name
jyoti tiwari
Enter acc_no
567
Enter acc_type
0 for Savings
1 for Current
0
Enter balance
4566788

1.Deposit
.Withdraw
3.Interest
1
Enter Amoumt
5657
4572445.0
To continue 1 else 0
```

```
Enter name
jyoti tiwari
Enter acc_no
3546
Enter acc_type
0 for Savings
1 for Current
0
Enter balance
56890

1.Deposit
.Withdraw
3.Interest
2
Enter Amoumt
35345
21545.0
To continue 1 else 0
```