Develop a Java program to create a class Bank that maintains two kinds of account for its customers, one called savings account and the other 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 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, 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 the necessary methods in order to achieve the following tasks:
a) Accept deposit from customer and update the balance.
b) Display the balance.
c) Compute and deposit interest
d) Permit withdrawal and update the balance
Check for the minimum balance, impose penalty if necessary and update the balance.

```
import java.util.*;
import java.lang.*;

class Account
{
	String name,accno,type;
	Account(String n,String a,String t)
	{
		name=n;
		accno=a;
		type=t;
	}
}

class Cur_acc extends Account {
```

```
int balance=0;
int pen=0;
Cur_acc(String n,String a,String t)
{
	super(n,a,t);
}
void cheque_deposit(int amt)
{
	balance+=amt;
	if(pen!=0 && balance>1000)
	{
		balance=balance-pen;
		pen=0;
		System.out.println("You have paid penalty");
	}
}
void balance()
{
	System.out.println("Name: "+name+" Accno: "+accno+" Balance: "+balance);
}

void withdraw(int amt)
{
	if(balance==0)
	{
		System.out.println("Account is empty");
		return;
```

```
            }
            balance=balance-amt;
            if(balance<2000)
            {
                  System.out.println("You are imposed with service charge");
                  pen=pen+1000;
                  System.out.println("Penalty: "+pen);
            }
            System.out.println("Name: "+name+" Accno: "+accno+" Balance:
"+balance);
      }



}

class Sav_acc extends Account {
      int balance=0;
      Sav_acc(String n,String a,String t)
      {
            super(n,a,t);
      }

      void deposit(int amt)
      {
            balance+=amt;
      }
      void balance()
      {
```

```
            System.out.println("Name: "+name+" Accno: "+accno+" Balance: "+balance);
        }
        void interest()
        {
            double i=balance*0.08;
            System.out.println("Interest :"+i);
        }
        void withdraw(int amt)
        {
            if(balance==0)
            {
                System.out.println("Account is empty");
                return;
            }
            balance=balance-amt;
            System.out.println("Name: "+name+" Accno: "+accno+" Balance: "+balance);
        }
}

class program5 {
        public static void main(String args[])
        {
            Scanner sc=new Scanner(System.in);
            String n,acc,t;
            int amt,a,ch,ch1;
            System.out.println("Enter the name and account no ");
```

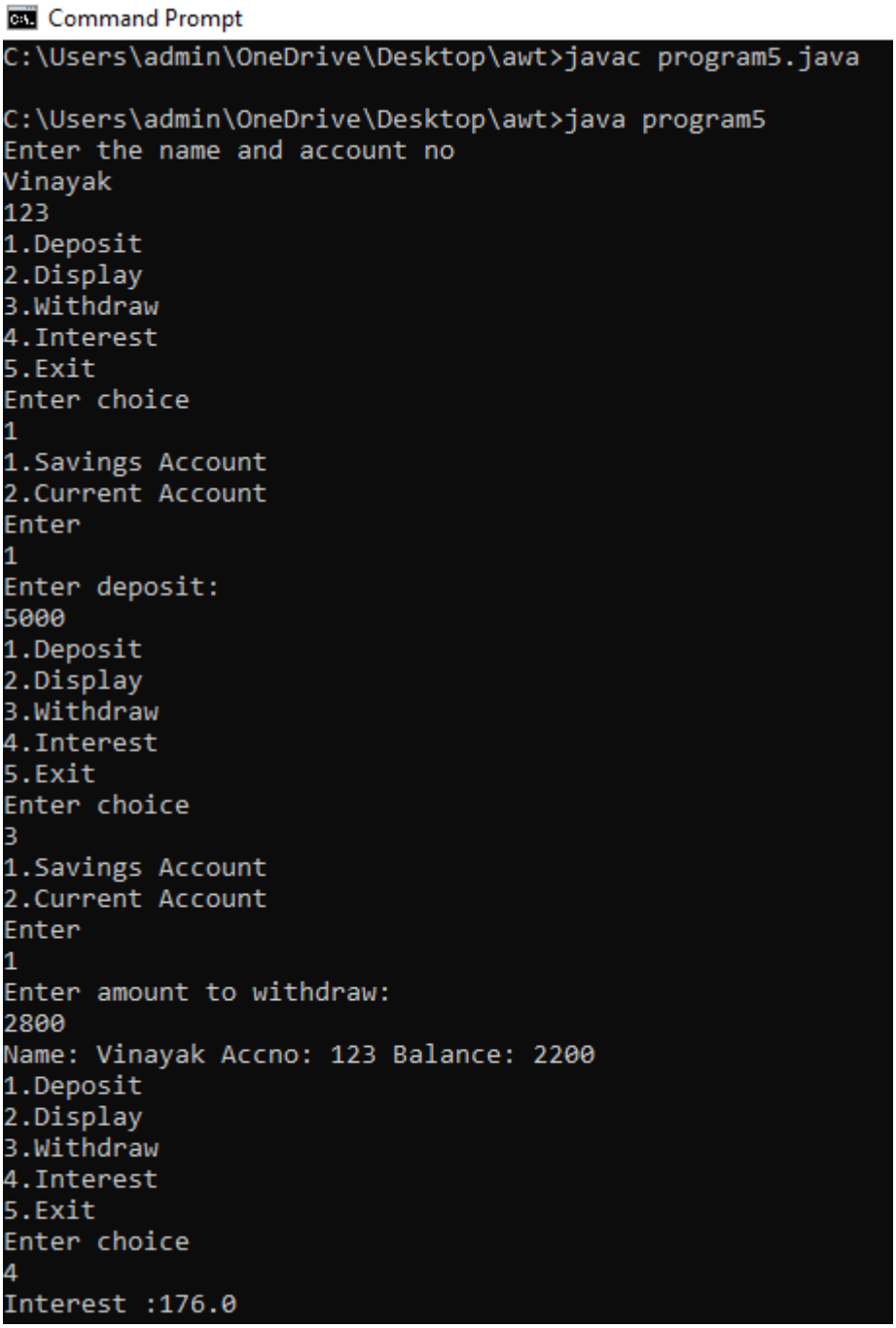
```
n=sc.next();
acc=sc.next();
Sav_acc s=new Sav_acc(n,acc,"S");
Cur_acc c=new Cur_acc(n,acc,"C");
while(true)
{

System.out.println("1.Deposit\n2.Display\n3.Withdraw\n4.Interest\n5.Exi
t");
System.out.println("Enter choice");
ch=sc.nextInt();
switch(ch)
{
case 1:
System.out.println("1.Savings Account \n2.Current
Account\nEnter");
ch1=sc.nextInt();
if(ch1==1)
{
System.out.println("Enter deposit:");
amt=sc.nextInt();
s.deposit(amt);
}
if(ch1==2)
{
System.out.println("Enter deposit:");
amt=sc.nextInt();
c.cheque_deposit(amt);
```

```
                }
                break;
            case 2:
                System.out.println("1.Savings Account \n2.Current
Account\nEnter");
                ch1=sc.nextInt();
                if(ch1==1)
                {
                    s.balance();
                }
                if(ch1==2)
                {
                    c.balance();
                }
                break;
            case 3:
                System.out.println("1.Savings Account \n2.Current
Account\nEnter");
                ch1=sc.nextInt();
                if(ch1==1)
                {
                    System.out.println("Enter amount to
withdraw:");
                    a=sc.nextInt();
                    s.withdraw(a);
                }
                if(ch1==2)
                {
```

```
                    System.out.println("Enter amount to
withdraw:");
                    a=sc.nextInt();
                    c.withdraw(a);
                }
                break;
            case 4:
                s.interest();
                break;
            case 5:
                System.exit(0);
            default:
                System.out.println("Invalid choice");
            }
        }
    }
}
```

Output:


Command Prompt
C:\Users\admin\OneDrive\Desktop\awt>javac program5.java
C:\Users\admin\OneDrive\Desktop\awt>java program5
Enter the name and account no
Vinayak
123
1.Deposit
2.Display
3.Withdraw
4.Interest
5.Exit
Enter choice
1
1.Savings Account
2.Current Account
Enter
1
Enter deposit:
5000
1.Deposit
2.Display
3.Withdraw
4.Interest
5.Exit
Enter choice
3
1.Savings Account
2.Current Account
Enter
1
Enter amount to withdraw:
2800
Name: Vinayak Accno: 123 Balance: 2200
1.Deposit
2.Display
3.Withdraw
4.Interest
5.Exit
Enter choice
4
Interest :176.0

```
1.Deposit
2.Display
3.Withdraw
4.Interest
5.Exit
Enter choice
1
1.Savings Account
2.Current Account
Enter
2
Enter deposit:
3000
1.Deposit
2.Display
3.Withdraw
4.Interest
5.Exit
Enter choice
3
1.Savings Account
2.Current Account
Enter
2
Enter amount to withdraw:
1500
You are imposed with service charge
Penalty: 1000
Name: Vinayak Accno: 123 Balance: 1500
1.Deposit
2.Display
3.Withdraw
4.Interest
5.Exit
Enter choice
1
1.Savings Account
2.Current Account
Enter
2
Enter deposit:
2000
You have paid penalty
1.Deposit
2.Display
3.Withdraw
4.Interest
5.Exit
Enter choice
2
1.Savings Account
2.Current Account
Enter
2
Name: Vinayak Accno: 123 Balance: 2500
1.Deposit
2.Display
3.Withdraw
4.Interest
5.Exit
Enter choice
5
```