

```

1  import java.util.*;
2  class Account
3  {
4      String name;
5      int accno;
6      String type;
7      double balance;
8      Scanner sc=new Scanner(System.in);
9      void accept()
10     {
11         System.out.println("enter name");
12         name=sc.next();
13         System.out.println("enter accno");
14         accno=sc.nextInt();
15     }
16 }
17
18 }
19 class Curr_acct extends Account
20 {
21     double deposit;
22     double withdraw;
23     double min_bal = 1000;
24     int penalty = 100;
25     Scanner sc=new Scanner(System.in);
26     void accept1()
27     {
28         System.out.println("enter the balance");
29         balance=sc.nextDouble();
30     }
31     void update()
32     {
33         System.out.println("enter the deposit");
34         deposit=sc.nextDouble();
35         balance+=deposit;
36         System.out.println("balance got updated to:"+balance);
37     }
38     void check()
39     {
40         if(balance<min_bal)
41         {
42             System.out.println("a penalty of 100 is imposed");
43             balance-=penalty;
44             System.out.println("balance got updated to:"+balance);
45         }
46     }
47     void withdrawal()
48     {

```



```

        System.out.println(" enter amt to be withdrawn");
        withdraw=sc.nextDouble();
        balance-=withdraw;
        System.out.println("balance got updated to:"+balance);
        check();
    }
    void display()
    {
        System.out.println("-----DETAILS-----");
        System.out.println("name:"+name);
        System.out.println("accno:"+accno);
        System.out.println("type:"+type);
        if(balance<0)
        {
            System.out.println("balance:0");
            System.out.println("money to be deposited:"+(-balance));
        }
        else
        {
            System.out.println("balance:"+balance);
            System.out.println("cheque book facility exist");
        }
    }
}

class sav_acct extends Account
{
    double balance;
    double deposit;
    double withdraw;
    double interest,time,rate;
    Scanner sc=new Scanner(System.in);

    void accept1()
    {
        System.out.println("enter the balance");
        balance=sc.nextDouble();
    }
    void update()
    {
        System.out.println("enter the deposit");
        deposit=sc.nextDouble();
        balance+=deposit;
        System.out.println("balance got updated to:"+balance);
    }
}

```



```

void calcinterest()
{
    System.out.println("a rate of 4.5% is given for deposits in savings bank acc");
    System.out.println("enter the time duration for which interest to be calc");
    time=sc.nextDouble();
    rate=4.5;
    double x,y;
    x=(1+rate/100);
    balance=balance*(Math.pow(x,time));

}
void withdrawal()
{
    System.out.println(" enter amt to be withdrawn");
    withdraw=sc.nextDouble();
    balance-=withdraw;
    System.out.println("balance got updated to:"+balance);
}
void display()
{
    System.out.println("-----DETAILS-----");
    System.out.println("name:"+name);
    System.out.println("accno:"+accno);
    System.out.println("type:"+type);
    calcinterest();
    if(balance<0)
    {
        System.out.println("balance:0");
        System.out.println("money to be deposited:"+(-balance));
    }
    else
    System.out.printf("balance:%.3f",balance);
    System.out.println();

    System.out.println("cheque book does not facility exist");
}

}

```

```
}
```

```
class Bank
```

```
{
```

```
    public static void main(String args[])
```

```
    {
```

```
        int op,ch;
```

```
        Scanner sc=new Scanner(System.in);
```

```
        System.out.println("1.curr_Acct \n2.sav acct");
```

```
        System.out.println("enter the type");
```

```
        op=sc.nextInt();
```

```
        if(op==1)
```

```
        {
```

```
            Curr_acct a=new Curr_acct();
```

```
            a.type="curr_Acct";
```

```
            a.accept();
```

```
            a.accept1();
```

```
            do{
```

```
                System.out.println("1.deposit 2.withdrawal 3.exit");
```

```
                System.out.println("enter your choice");
```

```
                ch=sc.nextInt();
```

```
                switch(ch)
```

```
                {
```

```
                    case 1:
```

```
                        a.update();
```

```
                        break;
```

```
                    case 2:
```

```
                        a.withdrawal();
```

```
                        break;
```

```
                    case 3:
```

```
                        a.display();
```

```
                        break;
```

```
                    default:
```

```
                        System.out.println("wrong choice");
```

```
                }
```

```
            }while(ch!=3);
```

```
        }
```

```
        if(op==2)
```

```
        {
```

```
            sav_acct b=new sav_acct();
```

```
            b.type="sav_Acct";
```

```
            b.accept();
```

```
            b.accept1();
```

```

184         b.type="sav_Acct";
185         b.accept();
186         b.accept1();
187         do{
188             System.out.println("1.deposit 2.withdrawal 3.exit");
189             System.out.println("enter your choice");
190             ch=sc.nextInt();
191             switch(ch)
192             {
193                 case 1:
194                     b.update();
195                     break;
196                 case 2:
197                     b.withdrawal();
198                     break;
199                 case 3:
200                     b.display();
201                     break;
202                 default:
203                     System.out.println("wrong choice");
204             }
205         }while(ch!=3);
206     }
207 }
208 }
209 }

```



```

C:\workspace>javac Account.java

C:\workspace>java Bank
1.curr_Acct
2.sav acct
enter the type
1
enter name
Rahul
enter accno
1500
enter the balance
27000
1.deposit 2.withdrawal 3.exit
enter your choice
1
enter the deposit
5000
balance got updated to:32000.0
1.deposit 2.withdrawal 3.exit
enter your choice
2
enter amt to be withdrawn
100000
balance got updated to:-68000.0
a penalty of 100 is imposed
balance got updated to:-68100.0
1.deposit 2.withdrawal 3.exit
enter your choice

```