```
13  import java.util.Scanner;
14  class Account
15  {
16      String name,accnum,acctype;
17      boolean checkbook=true;
18
19      double balance;
20      Account(){}
21      /*{
22          if(a==1)
23              acctype="savings";
24          else if(a==2)
25              acctype="current";
26      }*/
27
28      void input()
29      {
30          Scanner sc=new Scanner(System.in);
31
32      System.out.println("enter name ,acc number");
33      name=sc.next();
34      accnum=sc.next();
35
36      System.out.println("enter balance");
37      balance=sc.nextInt();
38
39
40  }
41
42  void displaydetails()
43          {
44          System.out.println("\nname="+name+"\naccnumber="+accnum+"\nbalance="+balance+"\naccount type="+acctype);
45          }
46  void display()
47      {
48          System.out.printf("balance=%.2f",balance);
49      }
50
51
52  }
53
54  class curracct extends Account
```

```
52  }
53
54  class curracct extends Account
55 {
56      curracct()
57      {
58              acctype="current";
59      }
60           double minbal=5000;
61
62      void check()
63      {
64          double penalty=100;
65       if(balance<minbal)
66          {
67           balance=balance-penalty;
68           System.out.println("penalty is imposed");
69           System.out.println("balance="+balance);
70
71          }
72          else
73          {
74            System.out.println("penalty not imposed");
75          }
76      }
77
78      void deposit()
79      {
80         Scanner sc=new Scanner(System.in);
81          System.out.println("enter amt to deposit:");
82          double amt=sc.nextDouble();
83             balance=balance+amt;
84      }
85  }
86
87  class savacc extends Account
88 {
89   savacc()
90      {
91              acctype="savings";
92      }
93 double ci;
```

```
class savacc extends Account
{
 savacc()
    {
            acctype="savings";
    }
double ci;
  void calcompound(int n,int t)
    {
      ci=balance*(Math.pow((1+(0.2/n)),(n*t)));
      balance=balance+ci;
        System.out.printf("compound interest:%.2f",ci);
        System.out.printf("\nbalance:%.2f",balance);


    }
   void withdrawal(double amt)
    {
        double minbal=5000;
        if(balance<5000)
         System.out.println("amount cant be withdrawn as min balance(5000) constraint will be vi
       else
           balance=balance-amt;

    }

     void deposit()
    {
        System.out.println("enter amount to deposit: ");
         Scanner sc=new Scanner(System.in);
        double depamt;
        depamt=sc.nextDouble();
        balance=balance+depamt;
       System.out.printf("\nbalance:%.2f",balance);

   }
}
```

```
class AccountMain
{
     public static void main(String[] args)
    {
         Scanner sc=new Scanner(System.in);

        //Account A=new Account();

         System.out.println("enter 1 for savings account 2 for current account");
         int acctype=sc.nextInt();

        savacc s=new savacc();
        curracct c=new curracct();
         if(acctype==1)
        {

        System.out.println("enter your details: ");
        s.input();
        s.displaydetails();
        System.out.println("number of times interest to be compounded per unit t(n),time in years");


        int n=sc.nextInt();
        int t=sc.nextInt();
        s.calcompound(n,t);

        int n1=1;
        while(n1==1)
        {

        System.out.println("\nenter 1.deposit 2.withdrawl 3.exit");
        int w=sc.nextInt();
        if(w==1)
            {
              s.deposit();
            }
        else if(w==2)
        {
            System.out.println("enter the amount :");
                    double amt=sc.nextDouble();

            s.withdrawal(amt);
```

```
145
146             int n=sc.nextInt();
147             int t=sc.nextInt();
148             s.calcompound(n,t);
149
150             int n1=1;
151             while(n1==1)
152             {
153
154             System.out.println("\nenter 1.deposit 2.withdrawl 3.exit");
155             int w=sc.nextInt();
156             if(w==1)
157                 {
158                   s.deposit();
159                 }
160             else if(w==2)
161             {
162                 System.out.println("enter the amount :");
163                         double amt=sc.nextDouble();
164
165                 s.withdrawal(amt);
166                 s.display();
167             }
168             else
169                 {
170                 System.exit(0);
171                 }
172             }
173             }
174
175           else if(acctype==2)
176             {
177                    System.out.println("enter your details: ");
178                     c.input();
179                     c.displaydetails();
180                     c.check();
181                     c.deposit();
182                     c.display();
183              }
184       }
185     }
```