

LAB PROGRAM – 5

INPUT :

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C:\Users\91944\OneDrive\Desktop\OOJLAB\Lab_8\Banktest.java - Sublime Text (UNREGISTERED)
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1  import java.util.Scanner;
2
3  class Account
4  {
5      String name;
6      String accno;
7      char acctype;
8
9      Scanner ss = new Scanner(System.in);
10
11     Account()
12     {
13         name = "";
14         accno = "";
15     }
16
17     void accept()
18     {
19         System.out.println("\n-----ENTER BASIC ACCOUNT DETAILS-----\n");
20         System.out.println("Enter the NAME of the account holder : ");
21         name = ss.next();
22         System.out.println("Enter the ACCOUNT NUMBER : ");
23         accno = ss.next();
24         System.out.println("Enter the ACCOUNT TYPE (S - Savings OR C - Current) : ");
25         acctype = ss.next().charAt(0);
26     }
27 }
28
29 class Sav_acct extends Account
30 {
31     double ci;
32     double deposit;
33     double withdraw;
34     double amt;
35     int ch;
36     double balance;
37     double diff = 0.0;
38     double time;
39     double r = 0.05;
40     Scanner ss = new Scanner(System.in);
41
42     void acceptch()
43     {
44         System.out.println("Enter the account BALANCE : ");
45         balance = ss.nextDouble();
46         do
47         {
48             System.out.println("\n1. DEPOSIT MONEY");
49             System.out.println("2. WITHDRAW MONEY");
50             System.out.println("3. EXIT");
51             System.out.println("\nEnter your choice");
52             ch = ss.nextInt();
53             if (ch == 1)
54                 depositamt();
55             else if (ch == 2)
56                 withdrawamt();
57             else if (ch == 3)
58                 break;
59             else
60                 System.out.println("INVALID CHOICE!!");
61         }
62         while (ch != 3);
63         System.out.println("Enter the time (in years) for which interest has to be calculated :");
64         time = ss.nextDouble();
65         displaydet();
66     }
67
68     void depositamt()
69     {
70         System.out.println("Enter the amount of money you want to DESPOSIT :");
71         deposit = ss.nextDouble();
72         balance += deposit;
73     }
74
75     void withdrawamt()
76     {
77         System.out.println("Enter the amount of money you want to WITHDRAW :");
78         withdraw = ss.nextDouble();
79         balance -= withdraw;
80     }
81
82     void displaydet()
83     {
84         amt = balance * Math.pow((1+r), time);
85         System.out.println("\n<----->\n");
86         System.out.printf("YOUR UPDATED BALANCE AFTER TRANSACTION : %.3f", amt);
87         System.out.println("\n<----->");
88     }
89 }
```

```

87     }
88 }
89
90 class Curr_acct extends Account
91 {
92     double balance;
93     double deposit;
94     double withdraw;
95     double amt;
96     int ch;
97     double min_bal = 1000;
98     int penalty = 25;
99     Scanner ss = new Scanner(System.in);
100
101     void acceptch()
102     {
103         System.out.println("Enter the account BALANCE : ");
104         balance = ss.nextDouble();
105         do
106         {
107             System.out.println("\n1. DEPOSIT MONEY");
108             System.out.println("2. WITHDRAW MONEY");
109             System.out.println("3. EXIT");
110             System.out.println("\nEnter your choice");
111             ch = ss.nextInt();
112             if (ch == 1)
113                 depositamt();
114             else if (ch == 2)
115                 withdrawamt();
116             else if (ch == 3)
117                 break;
118             else
119                 System.out.println("INVALID CHOICE!!");
120         }
121         while (ch != 3);
122         displaydet();
123     }
124
125     void depositamt()
126     {
127         System.out.println("Enter the amount of money you want to DESPOSIT :");
128         deposit = ss.nextDouble();
129         balance += deposit;
130     }
131
132     void withdrawamt()
133     {
134         System.out.println("Enter the amount of money you want to WITHDRAW :");
135         withdraw = ss.nextDouble();
136         balance -= withdraw;
137     }
138
139     void displaydet()
140     {
141         if (balance < min_bal)
142         {
143             System.out.println("YOUR BALANCE IS LESS THAN THE MINIMUM BALANCE REQUIRED");
144             System.out.println("So, a PENALTY of Rs."+penalty+"has been IMPOSED!!");
145             balance -= penalty;
146         }
147         System.out.println("\n<----->\n");
148         System.out.printf("YOUR UPDATED BALANCE AFTER TRANSACTION : %.3f\n", balance);
149         System.out.println("CHEQUE BOOK FACILITY HAS BEEN PROVIDED");
150         System.out.println("\n<----->");
151     }
152 }
153
154 class Banktest
155 {
156     public static void main(String[] args)
157     {
158         Account a = new Account();
159         a.accept();
160         if (a.acctype == 'S')
161         {
162             Sav_acct s = new Sav_acct();
163             s.acceptch();
164         }
165         else if (a.acctype == 'C')
166         {
167             Curr_acct c = new Curr_acct();
168             c.acceptch();
169         }
170         else
171             System.out.println("Enter a VALID account type!");
172     }
173 }

```

OUTPUT: (rate of interest assumed to be 5%)

```
Command Prompt

C:\Users\91944\OneDrive\Desktop\OOJLAB\Lab_8>java Banktest

-----ENTER BASIC ACCOUNT DETAILS-----

Enter the NAME of the account holder :
Adarsh
Enter the ACCOUNT NUMBER :
SBI123
Enter the ACCOUNT TYPE (S - Savings OR C - Current) :
S
Enter the account BALANCE :
1000

1. DEPOSIT MONEY
2. WITHDRAW MONEY
3. EXIT

Enter your choice
1
Enter the amount of money you want to DESPOSIT :
200

1. DEPOSIT MONEY
2. WITHDRAW MONEY
3. EXIT

Enter your choice
2
Enter the amount of money you want to WITHDRAW :
100

1. DEPOSIT MONEY
2. WITHDRAW MONEY
3. EXIT

Enter your choice
3
Enter the time (in years) for which interest has to be calculated :
1

<----->

YOUR UPDATED BALANCE AFTER TRANSACTION : 1155.000
<----->

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```