

```

import java.util.Scanner;
abstract class Shape
{
    int d1;
    int d2;
    Shape (int a, int b)
    {
        d1 = a;
        d2 = b;
    }
    abstract void printArea();
}

class Rectangle extends Shape
{
    Rectangle (int a, int b)
    {
        super(a,b);
    }
    void printArea()
    {
        double area = d1*d2/2;
        System.out.println("Area of the triangle :" + area);
    }
}

y

```

class Circle extends Shape

Circle (int a, int b)

{

 super (a, b);

}

void printarea () {

 double area = $3.14 \times d \times d / 4$;

 System.out.println ("Area of the circle: " + area);

}

}

class Main

{

 public static void main (String args [])

{

 System.out.println ("Enter the dimensions of rectangle");

 Scanner ss = new Scanner (System.in);

 int x = ss.nextInt();

 int y = ss.nextInt();

 System.out.println ("Enter the dimensions of triangle");

 int s = ss.nextInt();

 int w = ss.nextInt();

```
System.out.println("Enter the radius of circle");
unit f = ss.nextInt();
```

Rectangle r = new Rectangle(x, y);

Triangle t = new Triangle(s, w);

Circle c = new Circle(f, f);

r.printArea()

t.printArea()

c.printArea();

y. If area of rectangle is greater than triangle.

y. If area of rectangle is less than triangle.

y. If area of rectangle is equal to triangle.

y. If area of rectangle is less than circle.

y. If area of rectangle is greater than circle.

y. If area of triangle is greater than rectangle.

y. If area of triangle is less than rectangle.

y. If area of triangle is equal to rectangle.

y. If area of triangle is less than circle.

y. If area of triangle is greater than circle.

y. If area of circle is greater than rectangle.

y. If area of circle is less than rectangle.

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

```
class account
```

```
{
```

```
    String cust-name;
```

```
    long acc-no;
```

```
    double balance;
```

```
    int type-acc;
```

```
    void input()
```

```
{
```

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

```
    System.out.println("Enter account details");
```

```
    System.out.println("Enter customer name");
```

```
    cust-name = sc.nextLine();
```

```
    System.out.println("Enter customer account  
number");
```

```
    acc-no = sc.nextLong();
```

```
    System.out.println("Enter customer's account type");
```

```
    1. Savings account 2. Current account");
```

```
    type-acc = sc.nextInt();
```

```
    System.out.println("Enter customer's balance  
amount (in account");
```

```
    amount = sc.nextDouble();
```

```
    balance = sc.nextDouble();
```

```
y
```

void deposit()

{

Scanner sc = new Scanner (System.in);

double amt;

System.out.println("Enter amount to be deposited");

amt = sc.nextDouble();

balance = balance + amt;

y

u

(in deposit) amount will be added

(class Sav-Acc extends Account as in deposit)

{("amount entered is") printing - this method}

double interest = balance * rate / 100

balance contains initial balance. so, multiple

void computeInterest()

{

((deposit) amount will be added)

Scanner sc = new Scanner (System.in);

(int rate, time);

System.out.println("enter rate and

time period");

rate = sc.nextInt();

time = sc.nextInt();

interest = balance * Math. pow(1 + rate / 100.0, time) -
balance;

System.out.println("Compound interest = " + interest);

balance = balance + interest;

System.out.println("Customer's balance amount
in account is " + balance);

y

else { // if balance >= withdrawl amount

void withdrawal() { // following is a comment

{

Scanner sc = new Scanner(System.in);

double with;

System.out.println("Enter amount to be
withdrawn");

with = sc.nextDouble();

if (with > balance)

System.out.println("Withdrawal not
possible due to insufficient balance");

else

{

balance = balance - with;

System.out.println("Customer's balance
amount is " + balance);

y

y

Void check()

{

double Penalty;

If (balance < 200.0)

minimum balance maintained } At least 200.00 required

(from withdrawl amount)

Penalty = 200.0;

balance = balance - penalty;

System.out.println("Balance amount
less than minimum balance");

System.out.println("Penalty of Rs. 200");

System.out.println("Customer's balance amount
is account " + balance);

}

}

class curr-acct extends account

{

void withdrawal()

{

if (balance >= minBal)

```
Scanner sc = new Scanner(System.in);  
double width; // customer withdraw  
System.out.println("enter amount to be withdrawn");  
width = sc.nextDouble();  
if (width > balance) {  
    System.out.println("withdraw not possible  
    due to insufficient balance");  
}  
else
```

```
{  
    balance = balance - width;  
    System.out.println("Customer's balance amount in  
    account " + balance);  
}
```

y (Balance printed) was high static object

y

Void check()
{
 if (balance < 2000.0)

double penalty;

if (balance < 2000.0)

penalty = 200.0; // static object

balance = balance - penalty;

balance = balance - 200.0; // static object

System.out.println("balance amount lesser than
minimum balance");

System.out.println("Penalty of Rs. 200");

System.out.println("customer balance amount/t",
balance);

3

4

5

class bank {
 public static void main (String args[]) {

{

Sav acct obj = new Savacct();

Curr acct obj = new Curracct();

Scanner sc = new Scanner (System.in);

System.out.println("enter customer's account
type 1. Savings account 2. Current account");

int ch = sc.nextInt();

int n;

if (ch == 1)

{

```
o2. unput();
o2. display();
System.out.println("enthr 1 deposit 2.withdrawal");
n = sc.nextInt();
if (n == 1)
    o1. deposit();
```

```
if (n == 2)
    o1. withdrawal();
    o1. computeInterest();
    o2. check();
```

7
else if (ch == a2)

{

```
o2. unput();
o2. display();
```

```
System.out.println("enthr 1. deposit 2. withdrawal");
n = sc.nextInt();
if (n == 1)
    o2. deposit();
```

if (n == 2)

```
o2. withdrawal();
o2. check();
```

7

7

```
import java.util.Scanner;
abstract class Shape
{
    int d1;
    int d2;
    Shape(int a,int b)
    {
        d1=a;
        d2=b;
    }
    abstract void printarea();
}
class Rectangle extends Shape
{
    Rectangle(int a,int b)
    {
        super(a,b);
    }
    void printarea()
    {
        double l=(a+b)/2;
        double h=d1*d2;
        System.out.println("Area of rectangle is "+l*h);
    }
}
```

```
class Circle extends Shape
{
    Circle(int a,int b)
    {
        super(a,b);
    }
    void printarea()
    {
        double area=3.14*d1*d1;
        System.out.println("Area of the circle :"+area);
    }
}
class Main
{
    public static void main(String args[])
    {
        System.out.println("Enter the dimensions of rectangle");
        Scanner ss=new Scanner(System.in);
        int x=ss.nextInt();
        int y=ss.nextInt();
        System.out.println("Enter the dimensions of triangle");
    }
}
```

input

Enter the dimensions of rectangle



```
19 void printarea()
20 {
21     double area=d1*d2;
22     System.out.println("Area of the rectangle :" +area);
23 }
24 }
25 class Triangle extends Shape
26 {
27     Triangle(int a,int b)
28     {
29         super(a,b);
30     }
31     void printarea()
32     {
33         double area=d1*d2/2;
34         System.out.println("Area of the triangle :" +area);
35     }
36 }
37 class Circle extends Shape
38 {
39     Circle(int a int b)
```

```
enter customer's account type 1.savings account 2.current account
1
-----enter account details-----
enter customer name
karthik
enter customer account number
34576897
enter customer's account type 1.savings account 2.current account
1
enter customer's balance amount in account
30000
-----customer's account details-----
customer name    karthik
customer account number 34576897
customer's account type 1
customer's balance amount in account      30000.0
enter 1.deposit 2.withdrawal
1
enter amount to be deposited
560
enter rate and time period
```



```
public static void main(String args[])
{
    System.out.println("Enter the dimensions of rectangle");
    Scanner ss=new Scanner(System.in);
    int x=ss.nextInt();
    int y=ss.nextInt();
    System.out.println("Enter the dimensions of triangle");
    int s=ss.nextInt();
    int w=ss.nextInt();
    System.out.println("Enter the radius of circle");
    int f=ss.nextInt();

    Rectangle r=new Rectangle(x,y);
    Triangle t=new Triangle(s,w);
    Circle c=new Circle(f,f);
    r.printarea();
    t.printarea();
    c.printarea();
}
```

input

: the dimensions of rectangle



```
1
enter customer's balance amount in account
30000
-----customer's account details-----
customer name    karthik
customer account number 34576897
customer's account type 1
customer's balance amount in account    30000.0
enter 1.deposit 2.withdrawal
1
enter amount to be deposited
560
enter rate and time period
2
2
compound interest = 1234.623999999998
customer's balance amount in account    31794.624
...Program finished with exit code 0
Press ENTER to exit console.
```



```
import java.util.Scanner;
class account
{
    String cust_name;
    long acc_no;
    double balance;
    int type_acc;
    void input()
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("----enter account details----");
        System.out.println("enter customer name ");
        cust_name=sc.nextLine();
        System.out.println("enter customer account number");
        acc_no=sc.nextLong();
        System.out.println("enter customer's account type 1.savings account 2.current account");
        type_acc=sc.nextInt();
        System.out.println("enter customer's balance amount in account");
        balance=sc.nextDouble();
    }
}
```

```
39 ~ {  
40     double interest;  
41     void compute_interest()  
42 ~ {  
43         Scanner sc=new Scanner(System.in);  
44         int rate,time;  
45         System.out.println("enter rate and time period ");  
46         rate=sc.nextInt();  
47         time=sc.nextInt();  
48         interest=balance*Math.pow(1+rate/100.0,time)-balance;  
49         System.out.println("compound interest = "+interest);  
50         balance=balance+interest;  
51         System.out.println("customer's balance amount in account\t"+balance);  
52     }  
53     void withdrawal()  
54 ~ {  
55         Scanner sc=new Scanner(System.in);  
56         double with;  
57         System.out.println("enter amount to be withdrawn");  
58         with=sc.nextDouble();  
59         if(with>balance)  
60             System.out.println("Insufficient balance");  
61         else  
62             balance=balance-with;  
63         System.out.println("customer's balance amount in account\t"+balance);  
64     }  
65 }
```

input

customer's balance amount in account 31794.624

...Program finished with exit code 0
Press ENTER to exit console. █

```
}

void display()
{
    System.out.println("-----customer's account details-----");
    System.out.println("customer name\t"+cust_name);
    System.out.println("customer account number\t"+acc_no);
    System.out.println("customer's account type\t"+type_acc);
    System.out.println("customer's balance amount in account\t"+balance);
}
void deposit()
{
    Scanner sc=new Scanner(System.in);
    double amt;
    System.out.println("enter amount to be deposited ");
    amt=sc.nextDouble();
    balance=balance+amt;
}
class Sav_acct extends account
{
    double interest;
}

customer's balance amount in account      31794.624
input
program finished with exit code 0
ENTER to exit console.[]
```



```
78     }
79 }
80 class Curr_acct extends account
81 {
82     void withdrawal()
83     {
84         Scanner sc=new Scanner(System.in);
85         double with;
86         System.out.println("enter amount to be withdrawn");
87         with=sc.nextDouble();
88         if(with>balance)
89             System.out.println("withdrawal not possible due to insufficient balance");
90         else
91         {
92             balance=balance-with;
93             System.out.println("customer's balance amount in account\t"+balance);
94         }
95     }
96     void check()
97     {
```

```
56
57     double with;
58     System.out.println("enter amount to be withdrawn");
59     with=sc.nextDouble();
60     if(with>balance)
61         System.out.println("withdrawal not possible due to insufficient balance");
62     else
63     {
64         balance=balance-with;
65         System.out.println("customer's balance amount in account\t"+balance);
66     }
67     void check()
68     {
69         double penalty;
70         if(balance<2000.0)
71         {
72             penalty=200.0;
73             balance=balance - penalty;
74             System.out.println("balance amount lesser than minimum balance");
75             System.out.println("penalty of Rs.200");
76             System.out.println("customer's balance amount in account\t"+balance);
77     }
```

input

customer's balance amount in account 31794.624

...Program finished with exit code 0
Press ENTER to exit console. █



```
117 int ch=sc.nextInt();
118 int n;
119 if(ch==1)
120 {
121     o1.input();
122     o1.display();
123     System.out.println("enter 1.deposit 2.withdrawal");
124     n=sc.nextInt();
125     if(n==1)
126         o1.deposit();
127     if(n==2)
128         o1.withdrawal();
129     o1.compute_interest();
130     o1.check();
131 }
132 else if(ch==2)
133 {
134     o2.input();
135     o2.display();
136     System.out.println("enter 1.deposit 2.withdrawal");
137     n=sc.nextInt();
```

input

customer's balance amount in account 31794.624

...Program finished with exit code 0
Press ENTER to exit console.[]



```
double penalty;
if(balance<2000.0)
{
    penalty=200.0;
    balance=balance - penalty;
    System.out.println("balance amount lesser than minimum balance");
    System.out.println("penalty of Rs.200");
    System.out.println("customer's balance amount in account\t"+balance);
}
}
class Main
{
    public static void main(String args[])
    {
        Sav_acct o1=new Sav_acct();
        Curr_acct o2=new Curr_acct();
        Scanner sc=new Scanner(System.in);
        System.out.println("enter customer's account type 1.savings account 2.current account");
        int ch=sc.nextInt();
        if(ch==1)
        {
            o1.deposit();
            o1.withdraw();
            o1.display();
        }
        else if(ch==2)
        {
            o2.deposit();
            o2.withdraw();
            o2.display();
        }
    }
}
```

Customer's balance amount in account 31794.624

Program finished with exit code 0
ENTER to exit console. █

```
128     o1.withdrawal();
129     o1.compute_interest();
130     o1.check();
131 }
132 else if(ch==2)
133 {
134     o2.input();
135     o2.display();
136     System.out.println("enter 1.deposit 2.withdrawal");
137     n=sc.nextInt();
138     if(n==1)
139         o2.deposit();
140     if(n==2)
141         o2.withdrawal();
142     o2.check();
143 }
144
145 }
146 }
147 }
```