

Main.java

```
1 import java.util.Scanner;
2 abstract class shape
3 {
4     int a,b;
5     abstract public void printArea();
6 }
7 class rectangle extends shape
8 {
9     rectangle(int x,int y)
10    {
11        a=x;
12        b=y;
13    }
14    public void printArea()
15    {
16        System.out.println("Area of rectangle is:"+(a*b));
17    }
18 }
19 class triangle extends shape
20 {
21     triangle(int x,int y)
22     {
23         a=x;
24         b=y;
25     }
26     public void printArea()
27     {
28         System.out.println("The area of triangle is:"+((a*b)/2));
29     }
30 }
31 class circle extends shape
32 {
33     circle(int y)
34     {
35         a=0;
```

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35     a=0;
36     b=y;
37 }
38 public void printArea()
39 {
40     System.out.println("Area of circle is:" + ((3.14)*b*b));
41 }
42 }
43 class Main
44 {
45     public static void main(String[] args)
46     {
47         Scanner sc=new Scanner(System.in);
48         int a,b,x;
49         do
50         {
51             System.out.print("1.Rectangle\n2.Triangle\n3.Circle\n");
52             System.out.print("Enter option :");
53             x=sc.nextInt();
54             switch(x)
55             {
56                 case 1 : System.out.print("Enter the length of rectangle : ");
57                     a=sc.nextInt();
58                     System.out.print("Enter the breadth of rectangle : ");
59                     b=sc.nextInt();
60                     rectangle r= new rectangle(a,b);
61                     r.printArea();
62                     break;
63                 case 2 : System.out.print("Enter the height of triangle : ");
64                     a=sc.nextInt();
65                     System.out.print("Enter the base of triangle : ");
66                     b=sc.nextInt();
67                     triangle t= new triangle(a,b);
68                     t.printArea();
69                     break;
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69         break;
70     case 3 : System.out.print("Enter the radius of circle : ");
71             a=sc.nextInt();
72             circle c= new circle(a);
73             c.printArea();
74             break;
75     default : break;
76     }
77 }
78 while(x>0 && x<4);
79 }
80 }
```