

Prog-4

```

import java.util.Scanner;
abstract class shape
{
    int i1,i2;
    abstract void printarea();
}
class rectangle extends shape
{
    void printarea()
    {
        System.out.println("In Area : "+(i1*i2));
    }
}
class triangle extends shape
{
    void printarea()
    {
        System.out.println("In Area of Triangle: "+(i1*i2/2));
    }
}
class circle extends shape
{
    void printarea()
    {
        System.out.println("In Area : "+(3.14159*i1*i2));
    }
}

class shapeMain
{
    public static void main (String [] args)
    {
        Scanner get = new Scanner (System.in);
        int choice;
        triangle t = new triangle();
        rectangle r = new rectangle();
        circle c = new circle();
        System.out.println("1.Rectangle\n2.Triangle\n3.Circle");
    }
}

```

```
System.out.print("In Enter the choice: ");  
choice = get.nextInt();  
switch (choice)  
{  
    case 1:  
        System.out.print("In Enter Height and width: ");  
        x.i1 = get.nextInt(); x.i2 = get.nextInt();  
        x.paintarea();  
        break;  
    case 2: System.out.print("In Enter altitude & base: ");  
        t.i1 = get.nextInt(); t.i2 = get.nextInt();  
        t.paintarea();  
        break;  
    case 3:  
        System.out.print("In Enter the radius: ");  
        c.i1 = get.nextInt();  
        c.paintarea();  
        break;  
    default: System.out.println("Input error");  
        System.exit(0);  
}  
}
```