

Practical 6 Create one Abstract Class Shape that has two variables for dimensions and one Abstract method called area (). Create two subclass Rectangle and Triangle of Shape class and find the area of Rectangle and Triangle. Create appropriate Constructors for data.

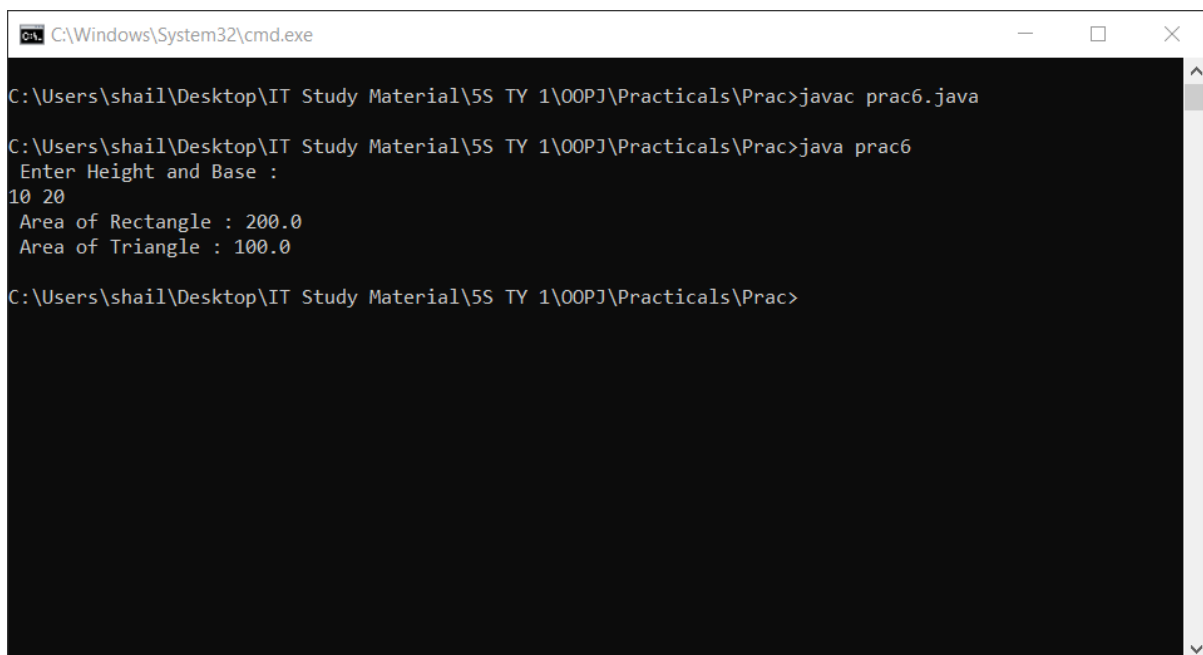
```
import java.util.Scanner;

abstract class shape
{
    float a, b;
    abstract void area();
}

class rectangle extends shape
{
    rectangle(int x, int y)
    {
        a = x;
        b = y;
    }
    void area()
    {
        System.out.println(" Area of Rectangle : " + a*b );
    }
}

class triangle extends shape
{
    triangle(int x, int y)
    {
        a = x;
        b = y;
    }
    void area()
```

```
        {  
            System.out.println(" Area of Triangle : " + (a*b)/2 );  
        }  
    }  
class prac6  
{  
    public static void main(String args[])  
    {  
        Scanner scan = new Scanner(System.in);  
        int a, b;  
        System.out.println(" Enter Height and Base : ");  
        a = scan.nextInt();  
        b = scan.nextInt();  
        rectangle r = new rectangle(a, b);  
        triangle t = new triangle(a, b);  
        r.area();  
        t.area();  
    }  
}
```



```
C:\Windows\System32\cmd.exe  
C:\Users\shail\Desktop\IT Study Material\5S TY 1\00PJ\Practicals\Prac>javac prac6.java  
C:\Users\shail\Desktop\IT Study Material\5S TY 1\00PJ\Practicals\Prac>java prac6  
Enter Height and Base :  
10 20  
Area of Rectangle : 200.0  
Area of Triangle : 100.0  
C:\Users\shail\Desktop\IT Study Material\5S TY 1\00PJ\Practicals\Prac>
```