Lab 9 23/10/24

. Develop a Java Program to create an abstract class name Shape that contains 2 integers & an empty method named printArea(). Provide 3 class - Rectangle, Triangle & circle ...

P:

```
import java.util.Scanner;

abstract class Shape
{
int dim1, dim2;
double area;
Scanner s = new Scanner(System.in);
abstract void printarea ();
}

class Rectangle extends Shape
{
Rectangle()
{
System.out.println("Enter dimensions of rectangle:");
dim1 = s.nextInt();
dim2 = s.nextInt();
}
void printarea()
{
area = dim1 * dim2;
System.out.println("Area of Rectangle:"+area);
}
}

class Triangle extends Shape
{
Triangle()
{
System.out.println("Enter dimensions of triangle:");
dim1 = s.nextInt();
dim2 = s.nextInt();
}
```

```
void printarea()
{
area = (dim1 * dim2)/2.0;
System.out.println("Area of Triangle:" + area);
}}

class Circle extends Shape{
Circle()
{
System.out.println("Enter dimensions of circle");
dim1 = s.nextInt();
}
void printarea()
{
area = 3.14 * dim1 * dim1;
System.out.println("Area of Circle:" + area);
}
}

class Shapeun
{
public static void main(String args[])
{
System.out.println("Anu");
Rectangle r = new Rectangle();
Triangle t = new Triangle();
Circle c = new Circle();
r.printarea();
t.printarea();
c.printarea();
}}
```

Output.

```
Enter dimension
2 3

Enter dimensions
2 3

Enter dimensions
2

Area of Rectangle: 6.0
Area of Triangle: 3.0
Area of Circle: 12.56
```

23-10-24