package phase;

abstract class Shape

{

String color;

abstract double area();

public abstract String toString();

public Shape(String color)

{

System.out.println("Shape constructor called");

this.color = color;

}

public String getColor()

{

return color;

}

}

class Circle extends Shape

{

double radius;

public Circle(String color,double radius)

{

super(color);

System.out.println("Circle constructor called");

this.radius = radius;

}

@Override

double area()

{

return Math.PI \* Math.pow(radius, 2);

}

@Override

public String toString()

{

return "Circle color is " + super.color + "and area is : " + area();

}

}

class Rectangle extends Shape

{

double length;

double width;

public Rectangle(String color,double length,double width)

{

super(color);

System.out.println("Rectangle constructor called");

this.length = length;

this.width = width;

}

@Override

double area()

{

return length\*width;

}