Circle

package Program01;

public class Circle extends GeometricObject{

    private double radius;

    Circle(){

    }

    public Circle(double radius) {

        this.radius = radius;

    }

    public Circle(String color, boolean fiiled, double radius) {

        super(color, fiiled);

        this.radius = radius;

    }

    public double getRadius() {

        return radius;

    }

    public void setRadius(double radius) {

        this.radius = radius;

    }

    @Override

    public double getArea(){

        return Math.PI\*(radius\*radius);

    }

    @Override

    public double getPerimeter() {

        return 2\*Math.PI\*radius;

    }

    public double getDiameter(){

        return 2\*radius;

    }

    @Override

    public String toString() {

        return super.toString()+"Circle [radius=" + radius + "]";

    }

}

Geometric

package Program01;

import java.util.Date;

public class GeometricObject {

    private String color;

    private boolean filled;

    Date dateCreated;

    GeometricObject(){

        dateCreated = new Date();

    }

    GeometricObject(String color , boolean filled ){

        this.color = color;

        this.filled = filled;

        this.dateCreated = new Date();

    }

    public String getColor() {

        return color;

    }

    public void setColor(String color) {

        this.color = color;

    }

    public boolean isFilled() {

        return filled;

    }

    public void setFilled(boolean filled) {

        this.filled = filled;

    }

    public Date getDateCreated() {

        return dateCreated;

    }

    public double getArea(){

        return 0;

    }

    public double getPerimeter(){

        return 0;

    }

    @Override

    public String toString() {

        return "GeometricObject [color=" + color + ", dateCreated=" + dateCreated + ", filled=" + filled + "]";

    }

}

Main

package Program01;

import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

      Scanner input = new Scanner(System.in);

      System.out.print("Enter three side of triangle : ");

      double side1 = input.nextDouble();

      double side2 = input.nextDouble();

      double side3 = input.nextDouble();

      String temp = input.nextLine();

      System.out.print("Enter color : ");

      String color = input.next();

      System.out.print("Is it filled? (true/false): ");

      boolean filled = input.nextBoolean();

      Triangle triangle1 = new Triangle(color,filled,side1,side2,side3);

      System.out.println(triangle1.toString());

      input.close();

    }

}

Rectangle

package Program01;

public class Rectangle extends GeometricObject{

    private double width;

    private double height;

    Rectangle(){

    }

    public Rectangle(double width, double height) {

        this.width = width;

        this.height = height;

    }

    public Rectangle(String color, boolean fiiled, double width, double height) {

        super(color, fiiled);

        this.width = width;

        this.height = height;

    }

    public double getWidth() {

        return width;

    }

    public void setWidth(double width) {

        this.width = width;

    }

    public double getHeight() {

        return height;

    }

    public void setHeight(double height) {

        this.height = height;

    }

    @Override

    public double getArea() {

        return width \* height;

    }

    @Override

    public double getPerimeter() {

        return 2\*(width+height);

    }

    @Override

    public String toString() {

        return super.toString() + "Rectangle [height=" + height + ", width=" + width + "]";

    }

}

Triangle

package Program01;

public class Triangle extends GeometricObject{

    private double side1,side2,side3;

    final private double SEMIPERIMETER = (side1+side2+side3)/2;

    Triangle(){

    }

    public Triangle(double side1, double side2, double side3) {

        this.side1 = side1;

        this.side2 = side2;

        this.side3 = side3;

    }

    public Triangle(String color, boolean fiiled, double side1, double side2, double side3) {

        super(color, fiiled);

        this.side1 = side1;

        this.side2 = side2;

        this.side3 = side3;

    }

    @Override

    public double getArea(){

        return Math.sqrt(SEMIPERIMETER\*(SEMIPERIMETER-side1)\*(SEMIPERIMETER-side2)\*(SEMIPERIMETER-side3));

    }

    @Override

    public double getPerimeter(){

        return side1+side2+side3;

    }

    @Override

    public String toString() {

        return super.toString()+"Triangle [side1=" + side1 + ", side2=" + side2 + ", side3=" + side3 + "]";

    }

}