

TAREA ED04

- Renomear a clase Circulo por Circulito.
- Renomear o método ObtenerArea por ObtenerAreaCirculo.
- Renomear os campo x e y por coordenadaX e coordenadaY.
- Introducir constante LIMITERADIO de tipo double co valor 0.0
- Eliminar de forma segura os métodos obtenerX, obtenerY, obtenerRadio, establecerX, establecerY e establecerRadio que agora son innecesarios facendo os cambios necesarios no código para que sexan substituídos polos correspondentes métodos tipo get e set creados.

```
Circulito.java
CirculitoSona > src > circulito > Circulito.java > Circulito > getRadio()
7
8 public class Circulito {
9     static final double LIMITERADIO = 0.0;
10    private int coordenadaX;
11    private int coordenadaY;
12    private double radio;
13
14    public Circulito() {
15    }
16
17    public Circulito(int valorX, int valorY, double valorRadio) {
18        coordenadaX = valorX;
19        coordenadaY = valorY;
20        setRadio(valorRadio);
21    }
22
23    public int getX() {
24        return coordenadaX;
25    }
26
27    public void setX(int valor) {
28        coordenadaX = valor;
29    }
30
31    public int getY() {
32        return coordenadaY;
33    }
34
35    public void setY(int valor) {
36        coordenadaY = valor;
37    }
38
39    public void setRadio(double valor) {
40        radio = valor < 0.0 ? 0.0 : valor;
41    }
42
43    public double getRadio() {
44        return radio;
45    }
46
47    public double obtenerDiametro() {
48        return radio * 2;
49    }
50
51    public double obtenerCircunferencia() {
52        return Math.PI * obtenerDiametro();
53    }
54}
```

```
54
55    public double obtenerAreaCirculo() {
56        return Math.PI * radio * radio;
57    }
58
59    @Override
60    public String toString() {
61        return "Centro = [" + coordenadaX + ", " + coordenadaY + "]; Radio = " + radio;
62    }
63
64    public void trasladarCentro() {
65        coordenadaX = coordenadaX + 5;
66        coordenadaY = coordenadaY + 5;
67    }
68
69    public int a() {
70        return coordenadaX;
71    }
72
73}
```

```

src > circulo > ● Circulito.java
1  package circulo;
2
3  /**
4   * Pruebas de refactorización en NetBeans con la clase Circulo
5   *
6   * @author profesor
7   */
8  public class Circulito {
9      static final double LIMITERADIO = 0.0;
10     private int coordenadaX;
11     private int coordenadaY;
12     private double radio;
13
14     public Circulito() {
15     }
16
17     public Circulito(int valorX, int valorY, double valorRadio) {
18         coordenadaX = valorX;
19         coordenadaY = valorY;
20         setRadio(valorRadio);
21     }
22
23     public int getX() {
24         return coordenadaX;
25     }
26
27     public void setX(int valor) {
28         coordenadaX = valor;
29     }
30
31     public int getY() {
32         return coordenadaY;
33     }
34
35     public void setY(int valor) {
36         coordenadaY = valor;
37     }
38
39     public void setRadio(double valor) {
40         radio = valor < 0.0 ? 0.0 : valor;
41     }
42
43     public double getRadio(){
44         return radio;
45     }

```

Circulito.java

```

src > circulo > ● Circulito.java > Circulito > ● getY0
1  package circulo;
2
3  /**
4   * Pruebas de refactorización en NetBeans con la clase Circulo
5   *
6   * @author profesor
7   */
8  public class Circulito {
9      static final double LIMITERADIO = 0.0;
10     private int coordenadaX;
11     private int coordenadaY;
12     private double radio;
13
14     public Circulito() {
15     }
16
17     public Circulito(int valorX, int valorY, double valorRadio) {
18         coordenadaX = valorX;
19         coordenadaY = valorY;
20         setRadio(valorRadio);
21     }
22
23     public int getX() {
24         return coordenadaX;
25     }
26
27     public void setX(int valor) {
28         coordenadaX = valor;
29     }
30
31     public int getY() {
32         return coordenadaY;
33     }

```

Main.java

```

src > circulo > ● Main.java > Main > ● main(String[] args)
1  package circulo;
2
3  import java.text.DecimalFormat;
4
5  /**
6   * Pruebas de refactorización en NetBeans con la clase Circulo
7   *
8   * @author profesor
9   */
10 public class Main {
11
12     public static void main(String[] args) {
13         Circulito circulo = new Circulito(37, 43, 2.5);
14         String salida =
15             "La coordenada X es "+circulo.getX()+
16             "\nLa coordenada Y es "+circulo.getY()+
17             "\nEl radio es "+circulo.getRadio();
18
19         circulo.setX(35);
20         circulo.setY(20);
21         circulo.setRadio(4.2);
22
23         DecimalFormat dosDigitos = new DecimalFormat("0.00");
24         salida += "\nEl diámetro es " + dosDigitos.format(circulo.obtenerDiametro());
25         salida += "\nLa circunferencia es " + dosDigitos.format(circulo.obtenerCircunferencia());
26         salida += "\nEl área es " + dosDigitos.format(circulo.obtenerAreaCirculo());
27         System.out.println(salida);
28
29         System.out.println(salida);
30         System.exit(0);
31     }

```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

```

PS C:\Users\Salvaru\Desktop\Proyecto circulo\CD_UD4_Refactorizacion> cd 'c:\Users\Salvaru\Desktop\Proyecto circulo\CD_UD4_Refactorizacion'; & 'c:\Users\Salvaru\.vscode\extensions\vscjava.vscode-java-debug-0.31.0\scripts\launcher.bat' 'C:\Program Files\AdoptOpenJDK\jdk-11.0.10-hotspot\bin\java.exe' -Dfile.encoding=UTF-8 -cp 'C:\Users\Salvaru\AppData\Roaming\Code\User\workspaceStorage\4d9883ab755c801a1b530d265e11a54\vedhat.java\jdt_ws\CD_UD4_Refactorizacion_fee149af\bin' 'circulo.Main'
La coordenada X es 37
La coordenada Y es 43
El radio es 2.5
El diámetro es 8,40
La circunferencia es 26,39
El área es 55,42
La coordenada X es 37
La coordenada Y es 43
El radio es 2.5
El diámetro es 8,40
La circunferencia es 26,39
El área es 55,42
PS C:\Users\Salvaru\Desktop\Proyecto circulo\CD_UD4_Refactorizacion>

```

Ln 17, Col 1

Spaces: 4

UTF-8

GRUF

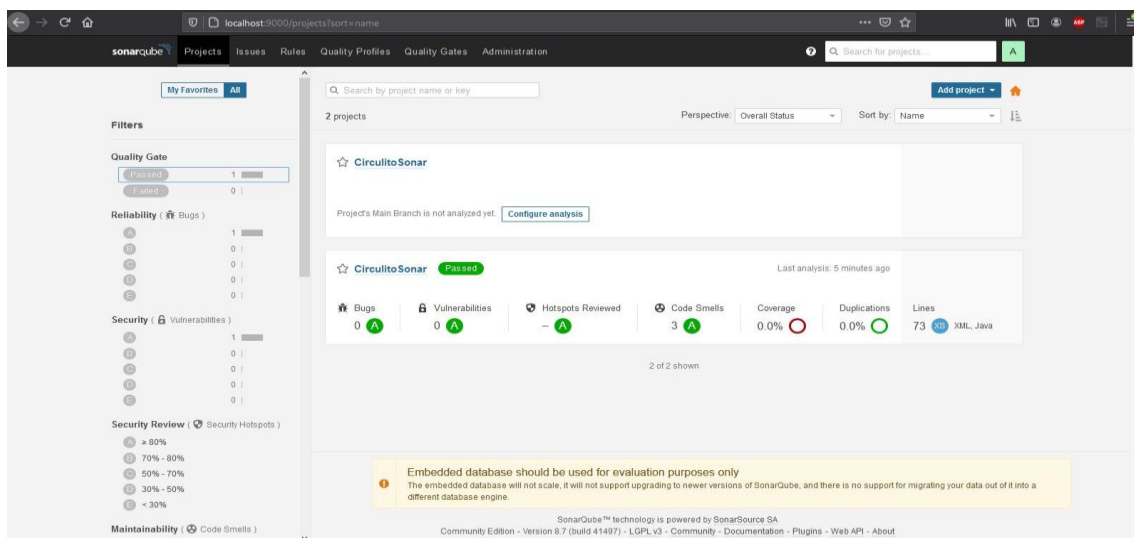
Java

JavaSE-11

Documenta o proxecto Círculo. Usa todas as etiquetas que consideres necesario.

```
CircuitoSonar > src > circulo > Circuito.java
1 package circulo;
2
3 /**
4  * Modificaciónes del proyecto circulo a Circulito segun especificaciones del ejercicio.
5  * Se modifican Todos los Parametros Renomear a clase Circulo por Circulito.
6  * Renomear o método ObtenerArea por ObtenerAreaCirculo.
7  * Renomear os campo x e y por coordenadaX e coordenadaY.
8  * Introducir constante LIMITERADIO de tipo double co valor 0.0
9  * Eliminar de forma segura os métodos obtenerX, obtenerY, obtenerRadio, establecerX, establecerY
10  * e establecerRadio que agora son innecesarios facendo os cambios necesarios no código
11  * @author Salvador
12  */
13 public class Circulito {
14     static final double LIMITERADIO = 0.0;
15     private int coordenadaX;
16     private int coordenadaY;
17     private double radio;
18
19     public Circulito() {
20     }
21
22     public Circulito(int valorX, int valorY, double valorRadio) {
23         coordenadaX = valorX;
24         coordenadaY = valorY;
25         setRadio(valorRadio);
26     }
27
28     public int getX() {
29         return coordenadaX;
30     }
31
32     public void setX(int valor) {
33         coordenadaX = valor;
34     }
35
36     public int getY() {
37         return coordenadaY;
38     }
39
40     public void setY(int valor) {
41         coordenadaY = valor;
42     }
43
44     public void setRadio(double valor) {
45         radio = valor < 0.0 ? 0.0 : valor;
46     }
47
48     public double getRadio() {
49     }
```

SonarQube. Instala o software SonarQube e analiza a calidade do proxecto Círculo.



```
INFO Building CircuitoSonar 1.0
INFO -----[ jar ]-----
INFO
INFO --- sonar-maven-plugin:3.8.0.2131:sonar (default-cli) @ CircuitoSonar ---
INFO User cache: C:\Users\Salvaru\.sonar\cache
INFO SonarQube version: 8.7.0
INFO Default locale: "es_ES", source code encoding: "UTF-8"
INFO Load global settings
INFO Load global settings (done) | time=67ms
INFO Server id: 8f41a1f2-a0k1jq8d-udm7ahwY-
INFO User cache: C:\Users\Salvaru\.sonar\cache
INFO Load/download plugins
INFO Load plugins index
INFO Load plugins index (done) | time=45ms
INFO Load/download plugin (done) | time=106ms
INFO Process project properties
INFO Process project properties (done) | time=11ms
INFO Execute project builders
INFO Execute project builders (done) | time=2ms
INFO Project key: CircuitoSonar:CircuitoSonar
INFO Base dir: C:\Users\Salvaru\Desktop\CircuitoSonar
INFO Working dir: C:\Users\Salvaru\Desktop\CircuitoSonar\target\sonar
INFO Load project settings for component key: 'CircuitoSonar:CircuitoSonar'
INFO Load project settings for component key: 'CircuitoSonar:CircuitoSonar' (done) | time=16ms
INFO Load quality profiles
INFO Load quality profiles (done) | time=42ms
INFO Load active rules
INFO Load active rules (done) | time=906ms
INFO Indexing files...
INFO Project configuration:
INFO 3 files indexed
INFO 0 files ignored because of scm ignore settings
INFO Quality profile for java: Sonar way
INFO Quality profile for xml: Sonar way
INFO ----- Run sensors on module CircuitoSonar
INFO Load metrics repository
INFO Load metrics repository (done) | time=17ms
INFO Sensor JavaSquidSensor [Java]
INFO Configured Java source version (sonar.java.source): 7
INFO JavaClasspath initialization
INFO JavaClasspath initialization (done) | time=14ms
INFO JavatestClasspath initialization
INFO JavatestClasspath initialization (done) | time=10ms
INFO Java Main Files AST scan
INFO 1 source files to be analyzed
INFO Load project repositories
INFO Load project repositories (done) | time=20ms
INFO 1/1 source files have been analyzed
INFO Java Main Files AST scan (done) | time=805ms
```

Documenta con javadoc o código do proxecto que realizaste na tarefa anterior (Selenium) e fai analiza a calidade do mesmo en sonarQube.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
[INFO] Scanning for projects...
[INFO] -----< org.apache.maven:standalone-pom >-----
[INFO] Building Maven Stub Project (No POM) 1
[INFO] -----[ pom ]-----
[INFO] >>> maven-archetype-plugin:3.1.2:generate (default-cli) > generate-sources @ standalone-pom >>>
[INFO] <<< maven-archetype-plugin:3.1.2:generate (default-cli) < generate-sources @ standalone-pom <<<
[INFO] --- maven-archetype-plugin:3.1.2:generate (default-cli) @ standalone-pom ---
[INFO] Generating project in interactive mode
[INFO] Archetype repository not defined. Using the one from [org.apache.maven.archetypes:maven-archetype-quickstart:1.4] found in catalog remote
Define value for property 'groupId': mvn clean package
V: : Y
[INFO] Using property: version = 1.0-SNAPSHOT
[INFO] Using property: package = mvn clean package
Confirm properties configuration:
groupId: mvn clean package
artifactId: Y
version: 1.0-SNAPSHOT
package: mvn clean package
V: : mvn clean package
Define value for property 'groupId': Pccomponentes
Define value for property 'artifactId': Pccomponentes
Define value for property 'version' 1.0-SNAPSHOT: : 1.0
Define value for property 'package' Pccomponentes: : Pccomponentes
Confirm properties configuration:
groupId: Pccomponentes
artifactId: Pccomponentes
version: 1.0
package: Pccomponentes
V: : Y
[INFO] -----
[INFO] Using following parameters for creating project from Archetype: maven-archetype-quickstart:1.4
[INFO] -----
[INFO] Parameter: groupId, Value: Pccomponentes
[INFO] Parameter: artifactId, Value: Pccomponentes
[INFO] Parameter: version, Value: 1.0
[INFO] Parameter: package, Value: Pccomponentes
[INFO] Parameter: packageInPathFormat, Value: Pccomponentes
[INFO] Parameter: package, Value: Pccomponentes
[INFO] Parameter: groupId, Value: Pccomponentes
[INFO] Parameter: artifactId, Value: Pccomponentes
[INFO] Parameters: version, Value: 1.0
[INFO] Project created from Archetype in dir: C:\Users\Salvaru\Desktop\Pccomponentes\Pccomponentes
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 19:55 min
[INFO] Finished at: 2021-03-04T20:03:59+01:00
[INFO] -----
PS C:\Users\Salvaru\Desktop\Pccomponentes>
```

The screenshot displays the Visual Studio Code interface with the Output window open, showing the logs of a SonarScanner CLI execution. The left sidebar shows the Explorer view with a project structure including folders like .vscode, driver, and various Java source files under main.java and test.java.

The Output window title is "powershell". The log content is as follows:

```
[INFO] Sensor CSS Rules [csconfamily]  
[INFO] No CSS, JSP, HTML or XSLT files are found in the project. CSS analysis is skipped.  
[INFO] Sensor CSS Rules [csconfamily] (done) | time=4ms  
[INFO] Sensor JaCoCo XML Report Importer [jacoco]  
[INFO] Sensor JaCoCo XML Report Importer [jacoco]: Is not defined, using default location; target/site/jacoco/jacoco.xml,target/site/jacoco-1.7/jacoco.xml,build/reports/jacoco/test/jacocoTestReport.xml  
[INFO] No report imported, no coverage information will be imported by JaCoCo XML Report importer  
[INFO] Sensor JaCoCo XML Report Importer [jacoco] (done) | time=13ms  
[INFO] Sensor C# Properties [sharp]  
[INFO] Sensor C# Properties [sharp] (done) | time=0ms  
[INFO] Sensor SurefireSensor [junit]  
[INFO] parsing {C:\Users\Salvador\Desktop\VComponents\target\surefire-reports}  
[INFO] Sensor SurefireSensor [junit] (done) | time=4ms  
[INFO] Sensor JsTestRunner [js]  
[INFO] 1 source files to be analyzed  
[INFO] Sensor JsTestRunner [js] (done) | time=12ms  
[INFO] 1 JS source files have been analyzed  
[INFO] Sensor HTML [web]  
[INFO] Sensor HTML [web] (done) | time=5ms  
[INFO] Sensor XML Sensor [xml]  
[INFO] 1 source files to be analyzed  
[INFO] Sensor XML Sensor [xml] (done) | time=12ms  
[INFO] Sensor VB.NET Properties [vbnet]  
[INFO] 1 JS source files have been analyzed  
[INFO] Sensor VB.NET Properties [vbnet] (done) | time=3ms  
[INFO] ----- Run sensors on project  
[INFO] Sensor Zero Coverage Sensor  
[INFO] Sensor Zero Coverage Sensor (done) | time=0ms  
[INFO] Sensor Java Block Indexer  
[INFO] Sensor Java CRO Block Indexer (done) | time=12ms  
[INFO] SCM Publisher SCM provider for this project is: git  
[INFO] SCM Publisher 3 source files to be analyzed (done) | time=5ms  
[INFO] SCM Publisher 0/3 source files have been analyzed (done) | time=5ms  
[WARNING] Missing blame information for the following files:  
[WARNING] * src/test/java/VComponents/AppTest.java  
[WARNING] * pom.xml  
[WARNING] * src/main/java/VComponents/App.java  
[WARNING] This may lead to missing/broken features in SonarQube  
[INFO] CPO Executor 1 file had no CRO blocks  
[INFO] CPO Executor Calculating CRO for 8 files  
[INFO] CPO Executor CPO calculation finished (done) | time=4ms  
[INFO] Analysis report generated in 67ms, dir size=10 KB  
[INFO] Analysis report compressed in 35ms, zip size=10 KB  
[INFO] Analysis report uploaded in 31ms  
[INFO] ANALYSIS SUCCESSFUL, you can browse http://localhost:9000/dashboard?id=VComponents:VComponents  
[INFO] Note that you will be able to access the updated dashboard once the server has processed the submitted analysis report  
[INFO] More about the report processing at http://localhost:9000/api/ci/task?id=Xf-pyYDwOzUdZwWv  
[INFO] Analysis total time: 5.406 s  
[INFO] -----  
[INFO] BUILD SUCCESS  
[INFO] -----  
[INFO] Total time: 7.131 s  
[INFO] Finished at: 2022-03-04T20:12:23+01:00  
[INFO] -----  
PS C:\Users\Salvador\Desktop\VComponents>
```

sonarqube Projects Issues Rules Quality Profiles Quality Gates Administration

Search for projects

Pccomponentes master

Last analysis had 1 warning March 4, 2021, 8:12 PM Version 1.0

Project Settings Project Information

QUALITY GATE STATUS

Passed
All conditions passed.

MEASURES

New Code Overall Code

0 Bugs Reliability A

0 Vulnerabilities Security A

0 Security Hotspots Reviewed Security Review A

20min Debt 3 Code Smells Maintainability A

0.0% Coverage on 2 Lines to cover 1 Unit Tests 0.0% Duplications on 73 Lines 0 Duplicated Blocks

ACTIVITY

Issues March 4, 2021, 8:12 PM

sonarqube Projects Issues Rules Quality Profiles Quality Gates Administration

Search for projects

My Favorites All

Filters

Quality Gate

Passed 2
Failed 0

Reliability (Bugs)

A 2
B 0
C 0
D 0
E 0

Security (Vulnerabilities)

A 2
B 0
C 0
D 0
E 0

Security Review (Security Hotspots)

A ≥ 90%
B 70% - 80%
C 50% - 70%
D 30% - 50%
E < 30%

Maintainability (Code Smells)

A 2
B 0
C 0
D 0
E 0

3 projects Perspective: Overall Status Sort by: Name

Search by project name or key

CircuititoSonar

Project's Main Branch is not analyzed yet. [Configure analysis](#)

CircuititoSonar Passed Last analysis: yesterday

Bugs 0 A Vulnerabilities 0 A Hotspots Reviewed - A Code Smells 3 A Coverage 0.0% Duplications 0.0% Lines 73 XML, Java

Pccomponentes Passed Last analysis: 47 minutes ago

Bugs 0 A Vulnerabilities 0 A Hotspots Reviewed - A Code Smells 3 A Coverage 0.0% Duplications 0.0% Lines 73 XML, Java

3 of 3 shown

Embedded database should be used for evaluation purposes only
The embedded database will not scale, it will not support upgrading to newer versions of SonarQube, and there is no support for migrating your data out of it into a different database engine.

SonarQube™ technology is powered by SonarSource SA
Community Edition - Version 8.7 (build 41497) - LGPL v3 - Community - Documentation - Plugins - Web API - About