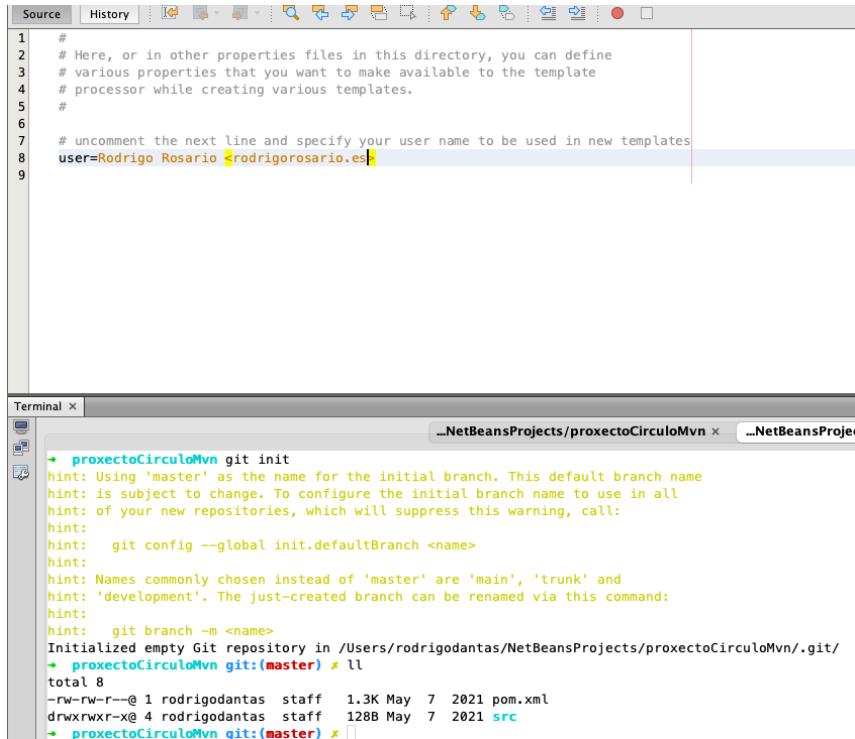


Tarefa 2 - UD04 - Refactorización - Documentación - SonarLint - Circulo

1. Crea un repositorio local Git co proxecto proxectoCirculoMvn



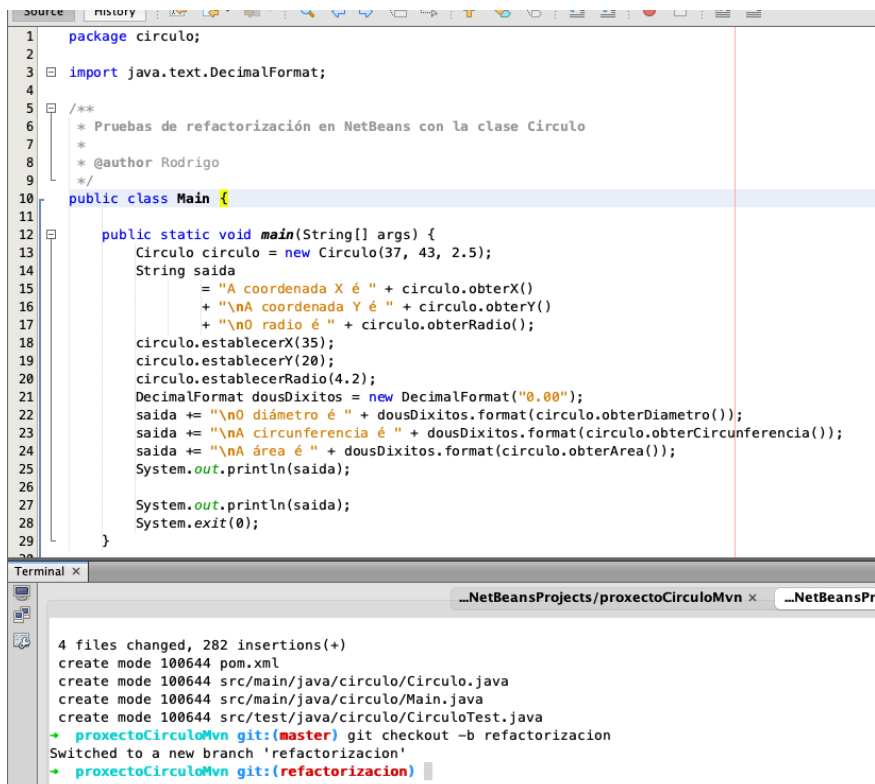
The screenshot shows the NetBeans IDE interface. The top pane displays the 'pom.xml' file with the following content:

```
1 #
2 # Here, or in other properties files in this directory, you can define
3 # various properties that you want to make available to the template
4 # processor while creating various templates.
5 #
6 #
7 # uncomment the next line and specify your user name to be used in new templates
8 user=Rodrigo Rosario <rodrigorosario.es>
9
```

The bottom pane shows the Terminal window with the following commands and output:

```
→ proxectoCirculoMvn git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /Users/rodrigodantas/NetBeansProjects/proxectoCirculoMvn/.git/
→ proxectoCirculoMvn git:(master) x ll
total 8
-rw-rw-r--@ 1 rodrigodantas  staff   1.3K May  7  2021 pom.xml
drwxrwxr-x@ 4 rodrigodantas  staff  128B May  7  2021 src
→ proxectoCirculoMvn git:(master) x
```

2. Cambia o nome do autor de todas as clases e garda no repositorio o proxecto.



The screenshot shows the NetBeans IDE interface. The top pane displays the 'Main.java' file with the following content:

```
1 package circulo;
2
3 import java.text.DecimalFormat;
4
5 /**
6  * Pruebas de refactorización en NetBeans con la clase Circulo
7  *
8  * @author Rodrigo
9  */
10 public class Main {
11
12     public static void main(String[] args) {
13         Circulo circulo = new Circulo(37, 43, 2.5);
14         String saida
15             = "A coordenada X é " + circulo.obterX()
16             + "\nA coordenada Y é " + circulo.obterY()
17             + "\nO radio é " + circulo.obterRadio();
18         circulo.establecerX(35);
19         circulo.establecerY(20);
20         circulo.establecerRadio(4.2);
21         DecimalFormat dousDixitos = new DecimalFormat("0.00");
22         saida += "\nO diámetro é " + dousDixitos.format(circulo.obterDiametro());
23         saida += "\nA circunferencia é " + dousDixitos.format(circulo.obterCircunferencia());
24         saida += "\nA área é " + dousDixitos.format(circulo.obterArea());
25         System.out.println(saida);
26
27         System.out.println(saida);
28         System.exit(0);
29     }
30 }
```

The bottom pane shows the Terminal window with the following commands and output:

```
4 files changed, 282 insertions(+)
create mode 100644 pom.xml
create mode 100644 src/main/java/circulo/Circulo.java
create mode 100644 src/main/java/circulo/Main.java
create mode 100644 src/test/java/circulo/CirculoTest.java
→ proxectoCirculoMvn git:(master) git checkout -b refactorizacion
Switched to a new branch 'refactorizacion'
→ proxectoCirculoMvn git:(refactorizacion)
```

3. Crea unha rama refactorizacion e móvete a ela

```
create mode 100644 src/test/java/Circulo/CirculoTest.java
→ proxectoCirculoMvn git:(master) git checkout -b refactorizacion
Switched to a new branch 'refactorizacion'
→ proxectoCirculoMvn git:(refactorizacion)
```

4. Comproba se está instalado o [Maven Surefire Plugin](#).

The screenshot shows the NetBeans IDE with the `pom.xml` file open. The file contains the following XML structure:

```
<build>
  <plugins>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-surefire-plugin</artifactId>
      <version>3.0.0-M5</version>
      <executions>
        <execution>
          <goals>
            <goal>test</goal>
          </goals>
          <id>test</id>
        </execution>
      </executions>
      <configuration>
        <foo>bar</foo>
      </configuration>
    </plugin>
  </plugins>
</build>
<dependencies>
  <dependency>
    <groupId>org.junit.jupiter</groupId>
```

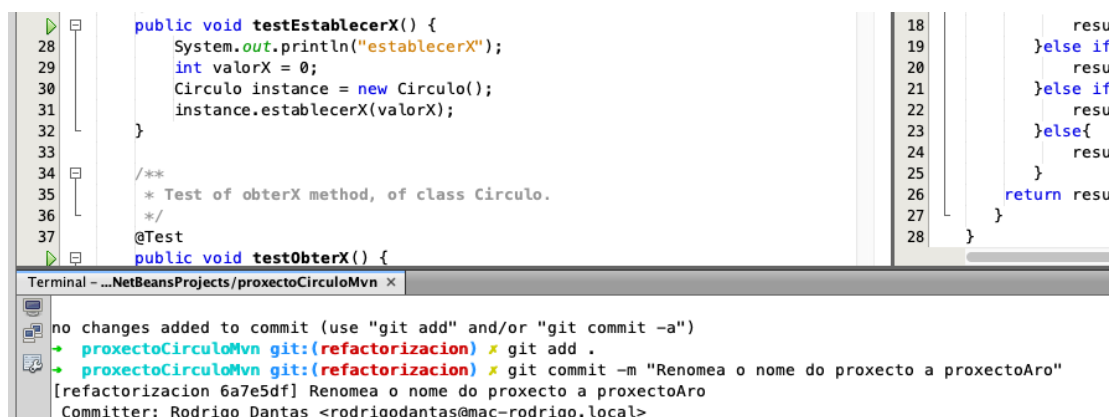
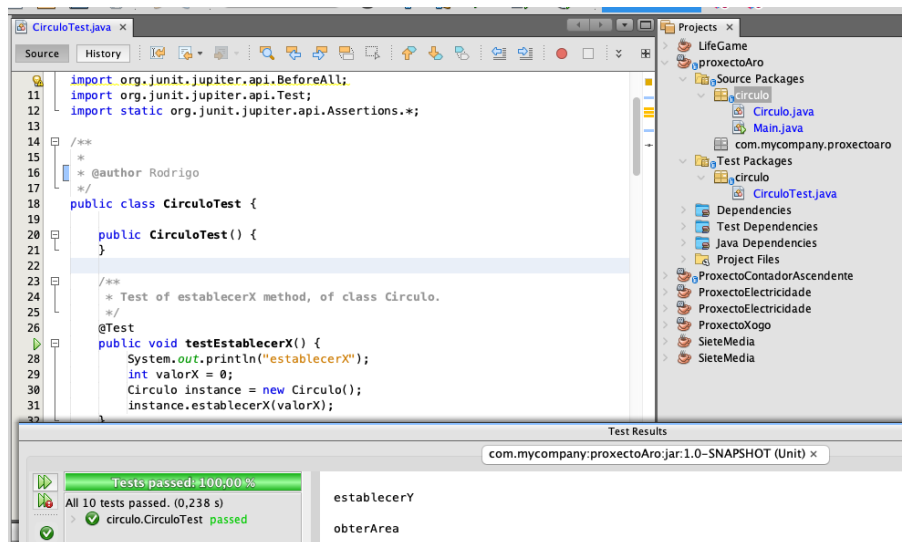
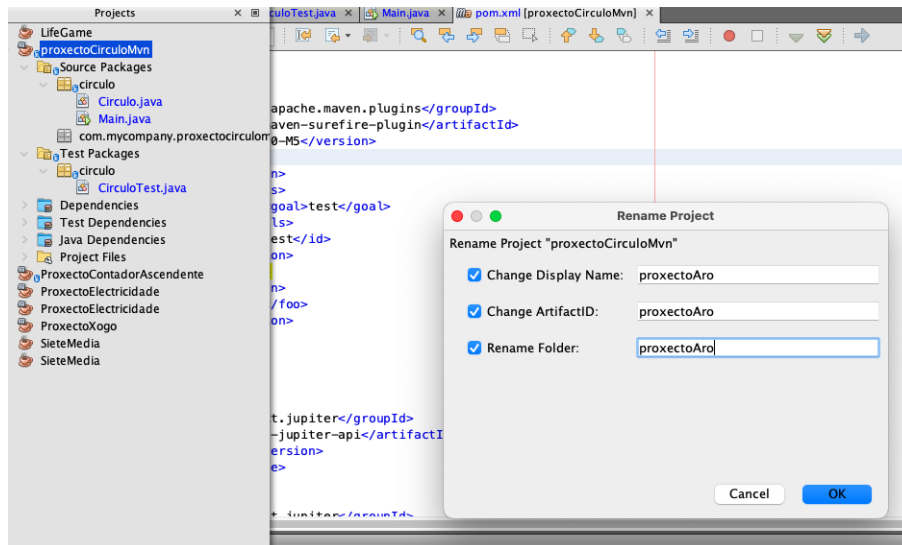
Below the code editor, the Maven build output is visible. It shows the following steps:

- Skipping execution of surefire because it has already been run for this con
- maven-jar-plugin:2.4:jar (default-jar) @ proxectoCirculoMvn ---
- Building jar: /Users/rodrigodantas/NetBeansProjects/proxectoCirculoMvn/target/
- maven-install-plugin:2.4:install (default-install) @ proxectoCirculoMvn
- Installing /Users/rodrigodantas/NetBeansProjects/proxectoCirculoMvn/target/
- Installing /Users/rodrigodantas/NetBeansProjects/proxectoCirculoMvn/pom.xml

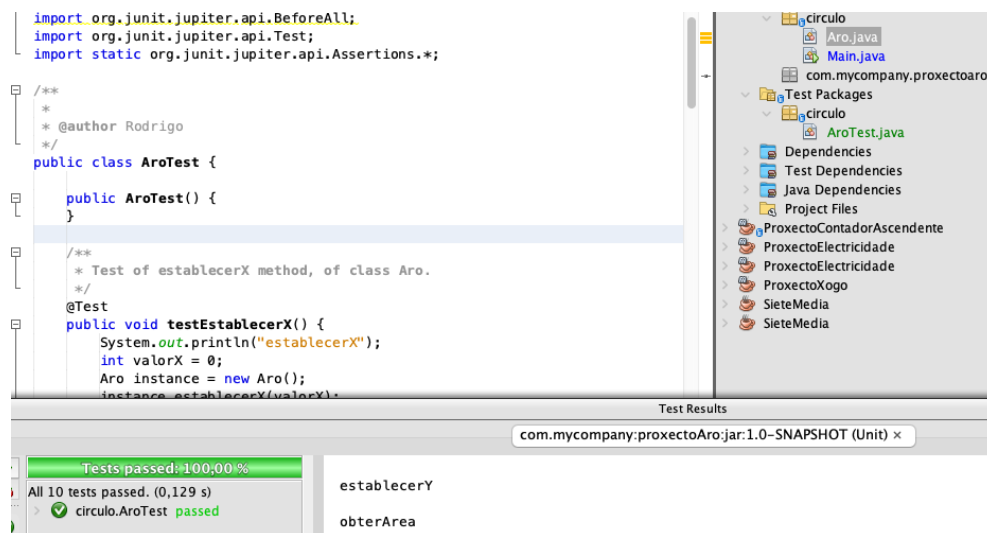
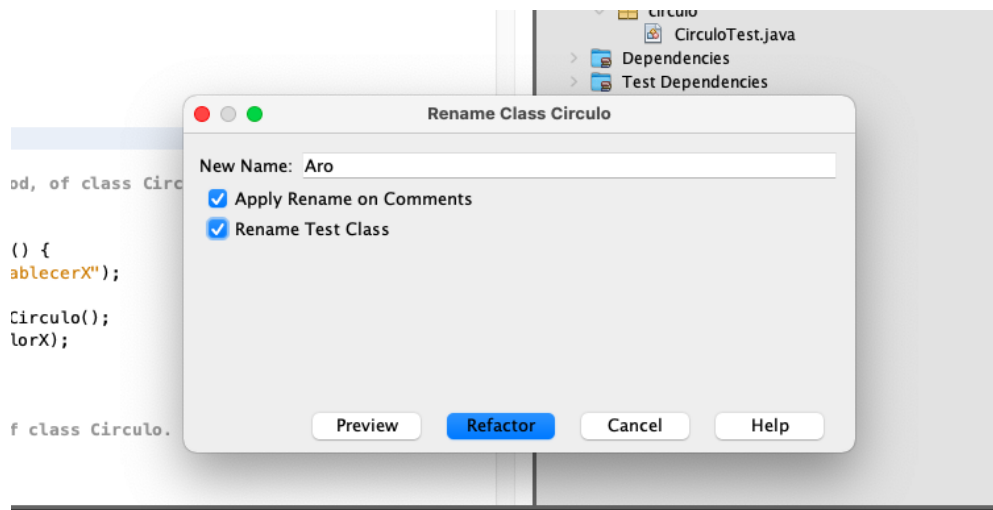
The build concludes with the following summary:

```
BUILD SUCCESS
-----
Total time: 5.684 s
Finished at: 2022-03-06T11:33:09+01:00
-----
```

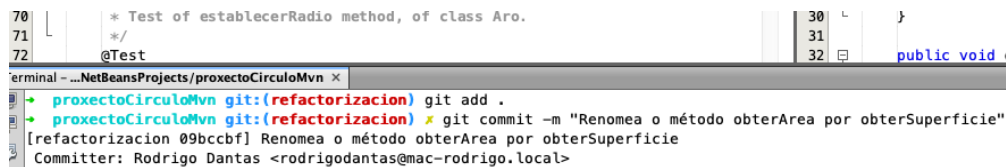
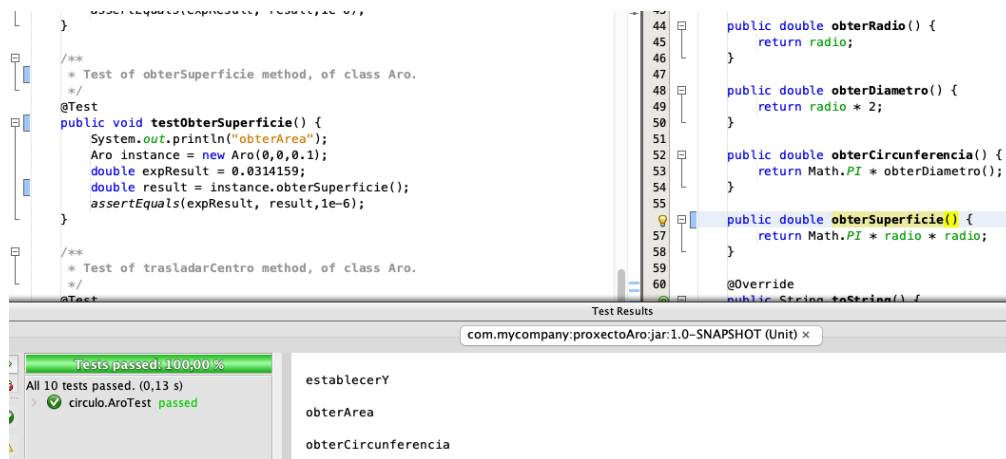
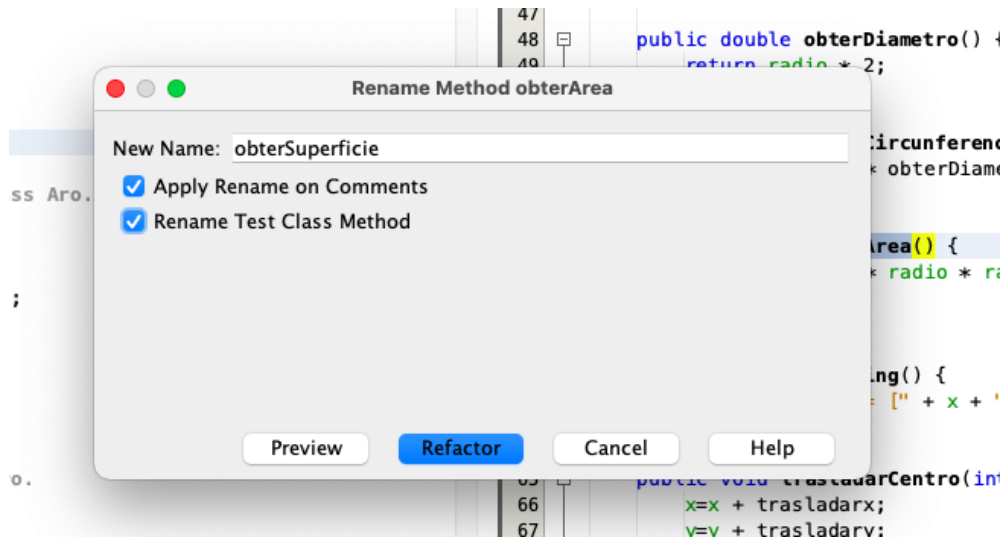
5. Realiza as seguintes refactorizações sobre o proxectoCirculoMvn:
- Renomea o nome do proxecto a proxectoAro



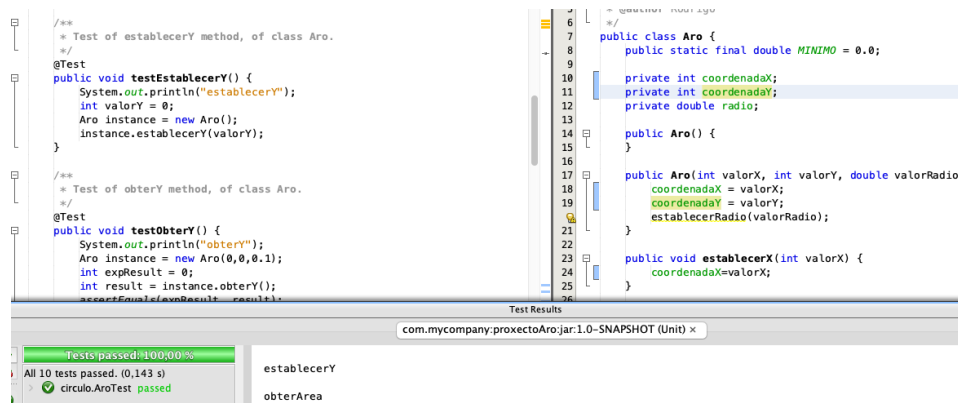
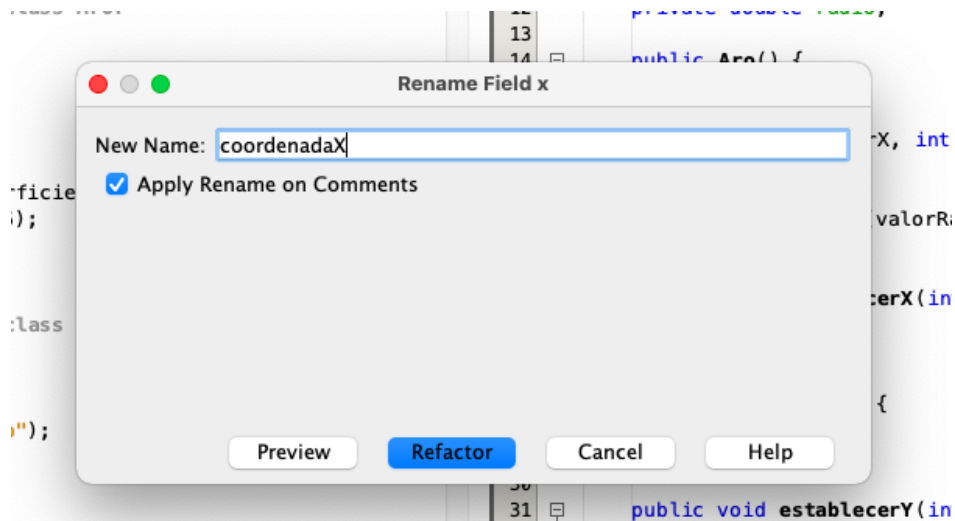
b. Renomea a classe Circulo por Aro



c. Renomea o método obterArea por obterSuperficie

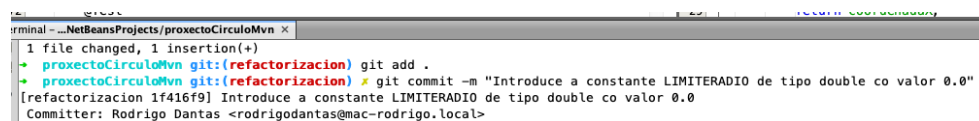


d. Renomea os campos x e y por coordenadaX e coordenadaY.

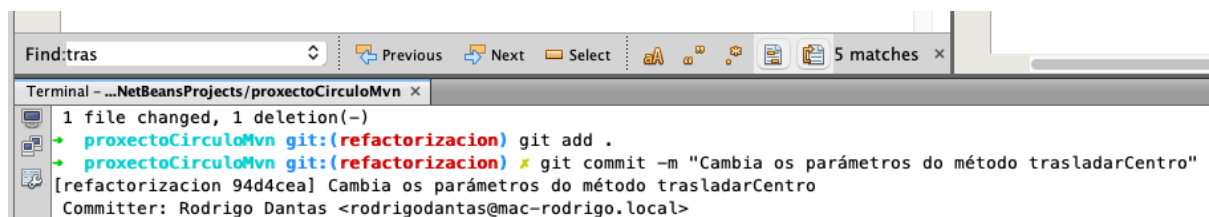
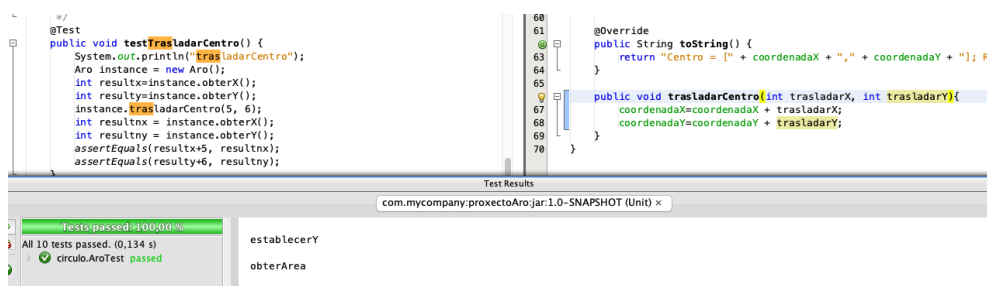
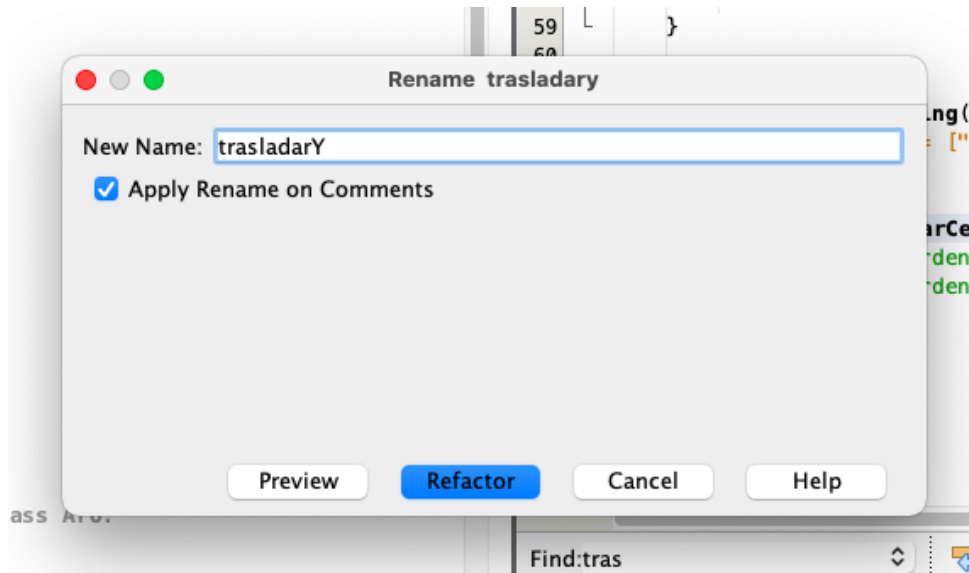
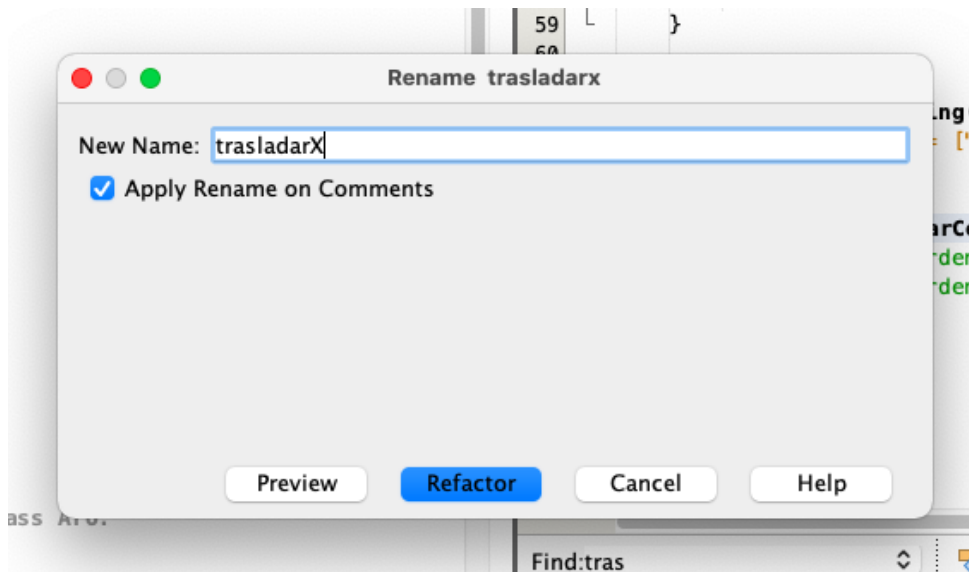


e. Introduce a constante LIMITERADIO de tipo double co valor 0.0.

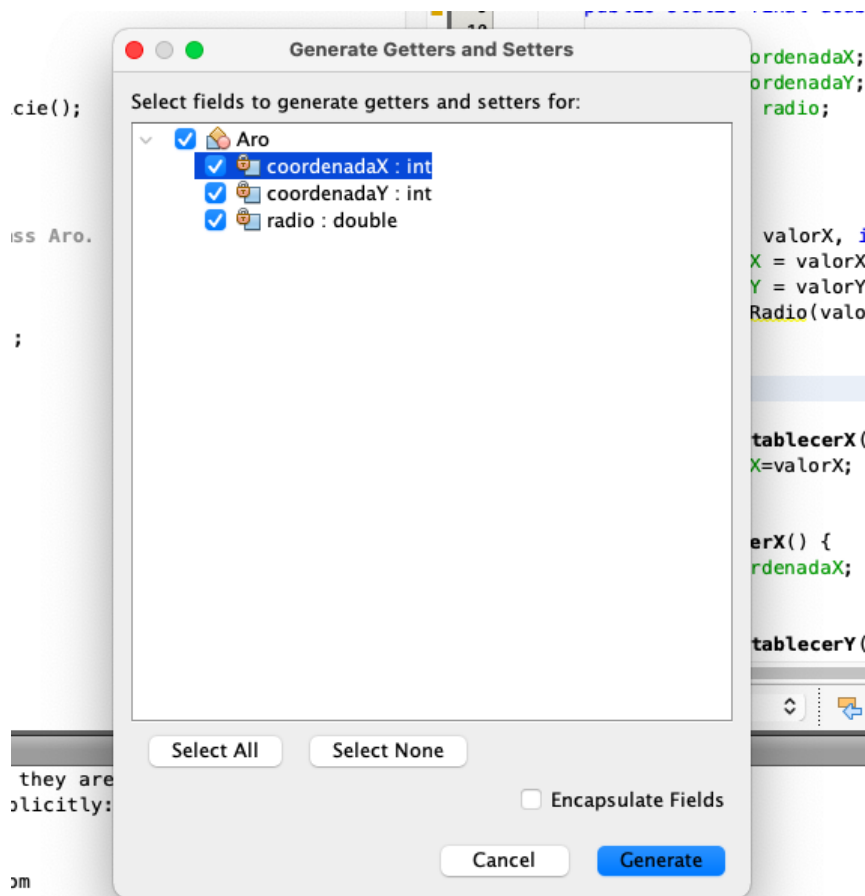
```
public static final double MINIMO = 0.0;
public static final double LIMITERADIO = 0.0;
```



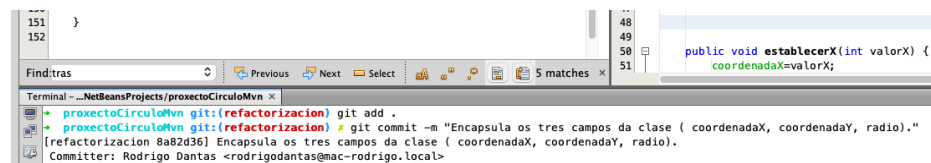
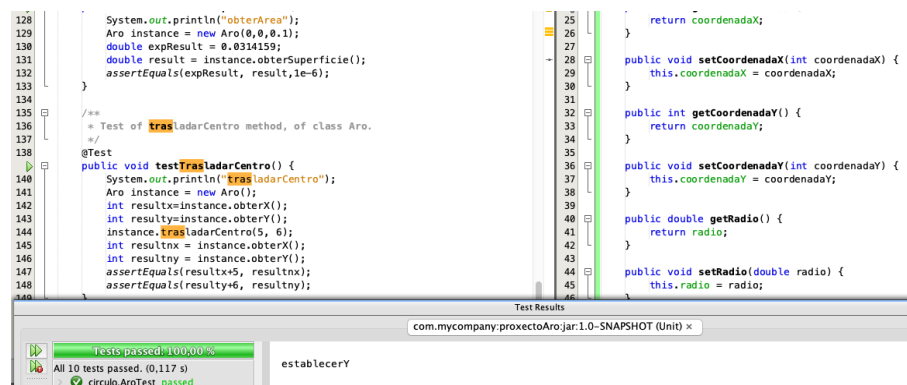
f. Cambia os parámetros do método trasladarCentro



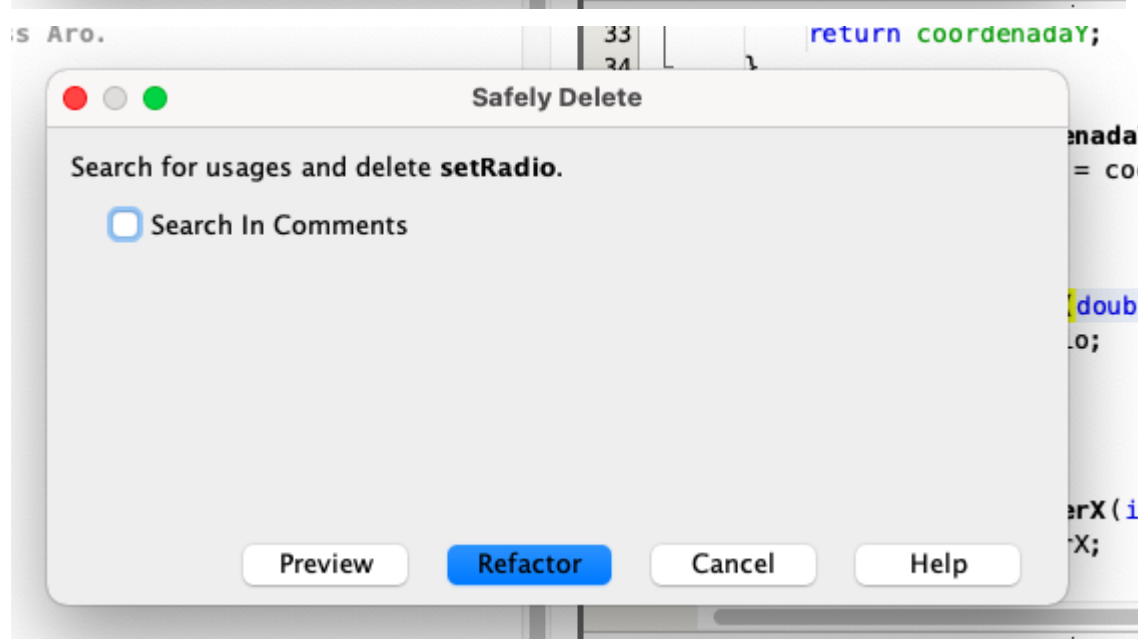
g. Encapsula os tres campos da classe (coordenadaX, coordenadaY, radio).

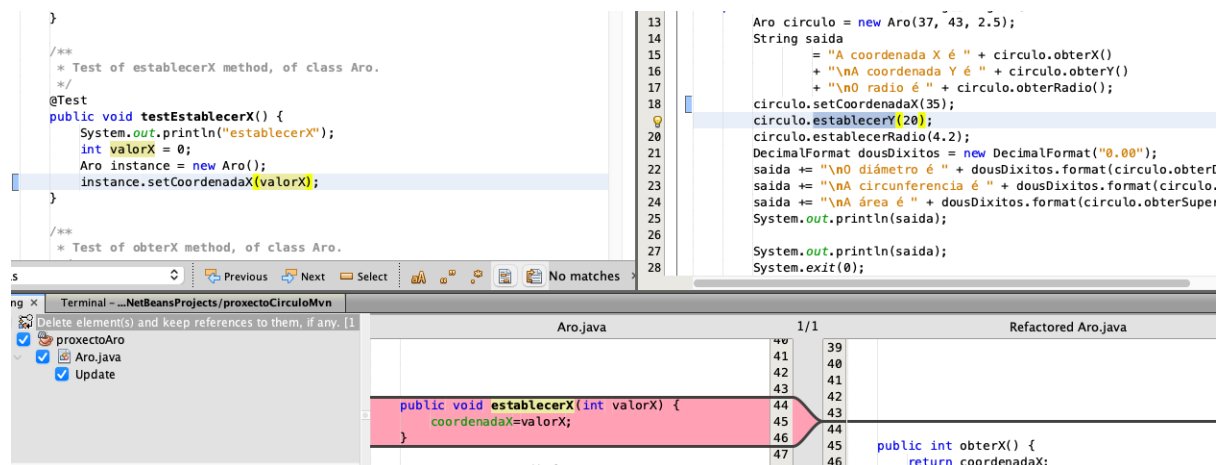
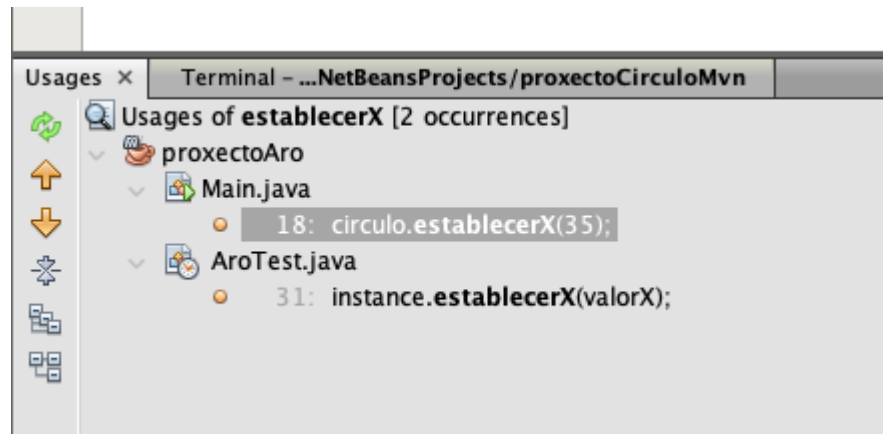
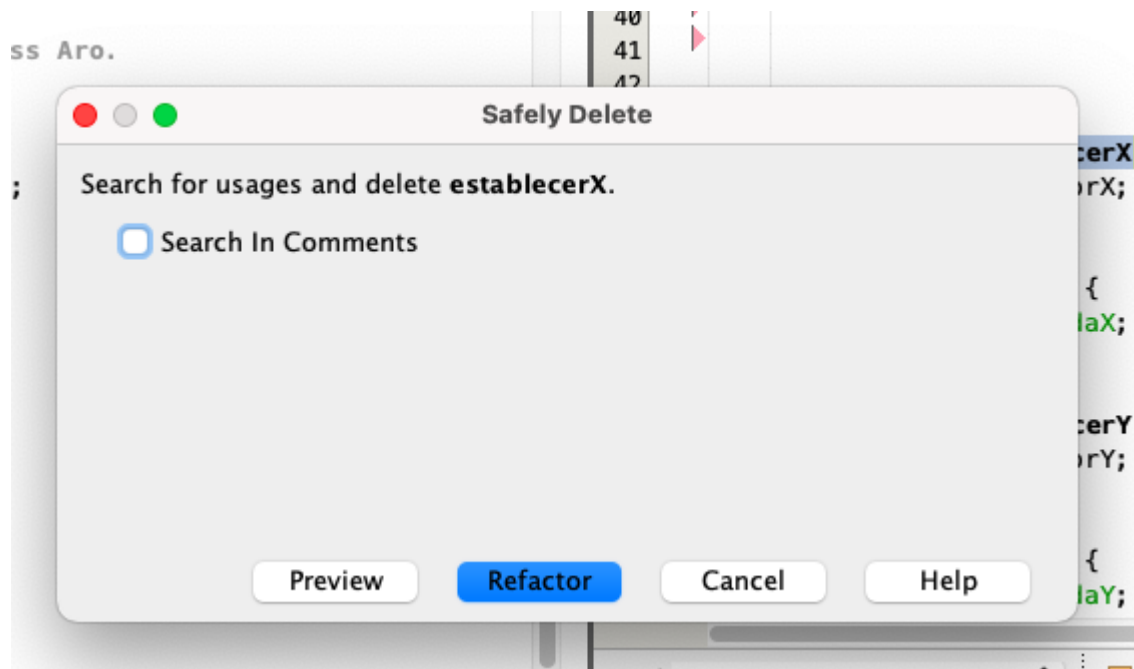


for this commit with:



- h. Elimina de forma segura os métodos obterX, obterY, obterRadio, establecerX, establecerY e establecerRadio





```

34
35
36
37
    * Test of obterX method, of class Aro.
    */
    @Test

```

Usages of obterX [4 occurrences]

- proxectoAro
 - Main.java
 - 15: = "A coordenada X é " + circulo.obterX()
 - AroTest.java
 - 42: int result = instance.obterX();
 - 142: int resultx=instance.obterX();
 - 145: int resultnx = instance.obterX();

Refactoring: Aro.java to Refactored Aro.java

| Aro.java | Refactored Aro.java |
|--|--|
| 36 public void setCoordenadaY(int coordenadaY) { | 35 public void setCoordenadaY(int coordenadaY) { |
| 37 this.coordenadaY = coordenadaY; | 36 this.coordenadaY = coordenadaY; |
| 38 } | 37 } |
| 39 } | 38 } |
| 40 public int obterX() { | 39 } |
| 41 return coordenadaX; | 40 } |
| 42 } | 41 } |
| 43 } | 42 } |
| 44 public void estabelecerY(int valorY) { | 43 coordenadaY=valorY; |
| 45 } | 44 } |

Usages of estabelecerY [2 occurrences]

- proxectoAro
 - Main.java
 - 19: circulo.estabelecerY(20);
 - AroTest.java
 - 54: instance.estabelecerY(valorY);

Refactoring: Aro.java to Refactored Aro.java

| Aro.java | Refactored Aro.java |
|--|--|
| 36 public void setCoordenadaY(int coordenadaY) { | 35 public void setCoordenadaY(int coordenadaY) { |
| 37 this.coordenadaY = coordenadaY; | 36 this.coordenadaY = coordenadaY; |
| 38 } | 37 } |
| 39 } | 38 } |
| 40 public void estabelecerY(int valorY) { | 39 } |
| 41 coordenadaY=valorY; | 40 } |
| 42 } | 41 } |
| 43 } | 42 } |
| 44 public int obterY() { | 43 return coordenadaY; |
| 45 return coordenadaY; | 44 } |

67 }
68

Usages x Terminal - ...NetBeansProjects/proyectoCirculoMvn

Usages of obterY [4 occurrences]

- proxectoAro
 - Main.java
 - 16: + "\nA coordenada Y é " + circulo.obterY()
 - AroTest.java
 - 65: int result = instance.obterY();
 - 143: int resulty=instance.obterY();
 - 146: int resultny = instance.obterY();

Refactoring x Terminal - ...NetBeansProjects/proyectoCirculoMvn

Delete element(s) and keep references to them, if any. [1]

- proxectoAro
 - Aro.java
 - Update

| Aro.java | 1/1 | Refactored Aro.java |
|----------------------------------|----------------------------------|--|
| 37 } 38 } 39 } 40 } | 36 37 38 39 | public void setCoordenadaY(int coordenadaY) { this.coordenadaY = coordenadaY; } |
| 41 42 43 44 45 46 | 40 41 42 43 44 45 | public void establecerRadio(double valorRadio) { radio=(valorRadio < MINIMO ? MINIMO : valorRad |

Usages x Terminal - ...NetBeansProjects/proyectoCirculoMvn

Usages of establecerRadio [7 occurrences]

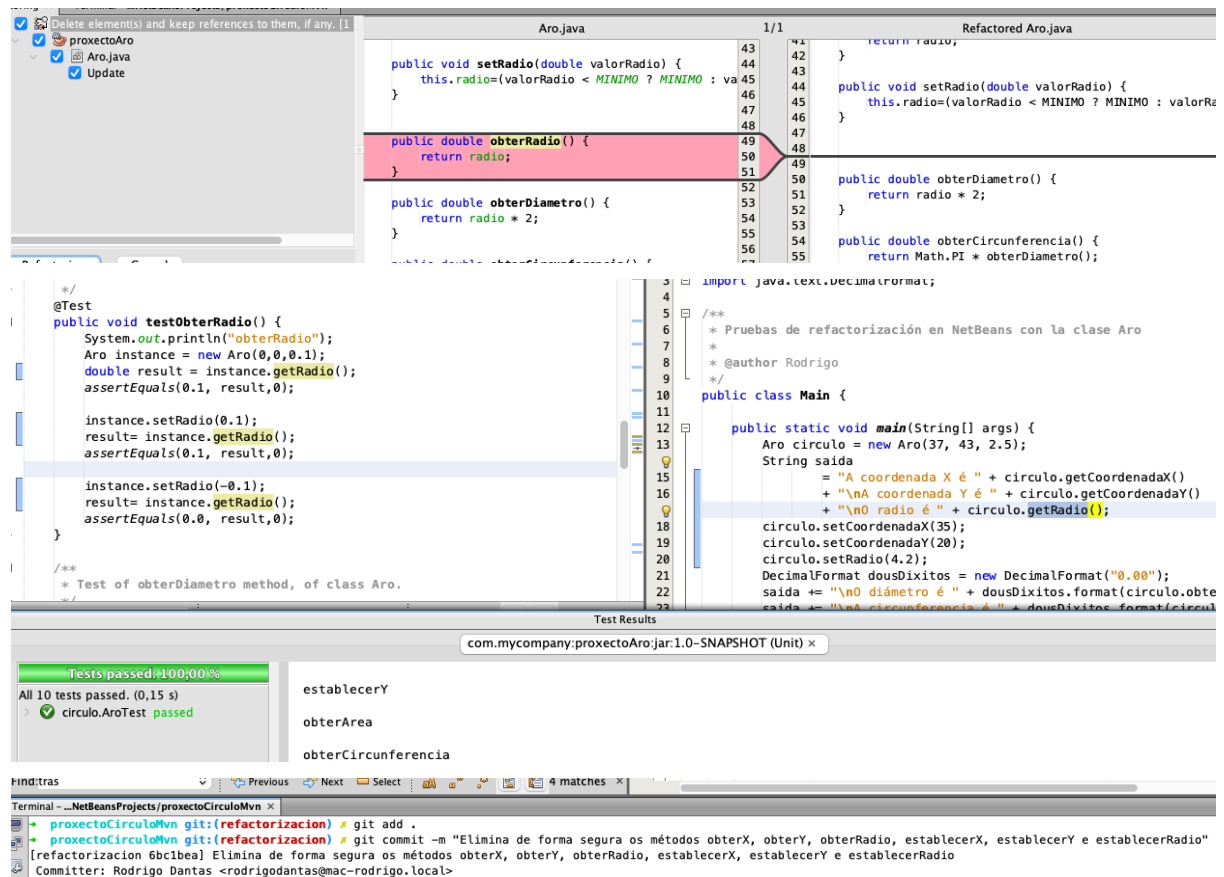
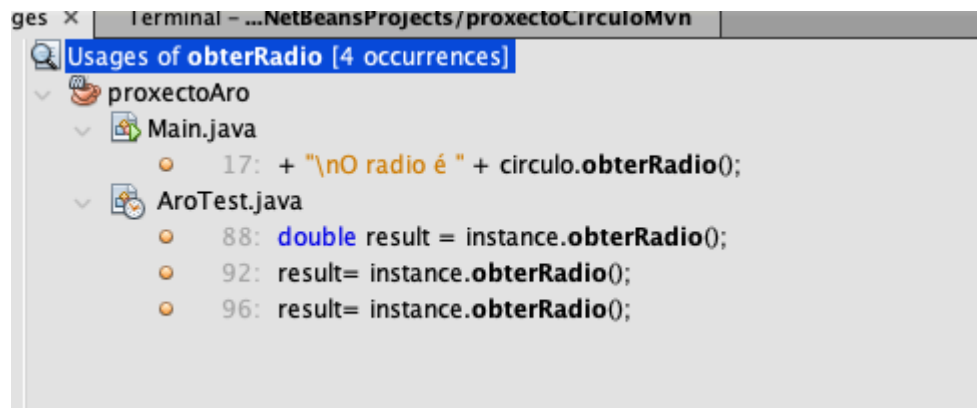
- proxectoAro
 - Aro.java
 - 21: establecerRadio(valorRadio);
 - Main.java
 - 20: circulo.establecerRadio(4.2);
 - AroTest.java
 - 76: instance.establecerRadio(0.0);
 - 77: instance.establecerRadio(0.1);
 - 78: instance.establecerRadio(-0.1);
 - 91: instance.establecerRadio(0.1);
 - 95: instance.establecerRadio(-0.1);

Refactoring x Terminal - ...NetBeansProjects/proyectoCirculoMvn

Delete element(s) and keep references to them, if any. [1]

- proxectoAro
 - Aro.java
 - Update

| Aro.java | 2/2 | Refactored Aro.java |
|--|--|---|
| 41 42 43 44 45 46 47 48 49 50 51 52 53 54 | 40 41 42 43 44 45 46 47 48 49 50 51 52 53 | public double getRadio() { return radio; } public void setRadio(double valorRadio) { this.radio=(valorRadio < MINIMO ? MINIMO : valorRa } public double obterRadio() { return radio; } public double obterDiametro() { |



6. Fusiona a rama refactorizacion coa rama master

```
*/
public class Main {

    public static void main(String[] args) {
        Aro circulo = new Aro(37, 43, 2.5);
        String saida
            = "A coordenada X é " + circulo.getCoordenadaX()
            + "\nA coordenada Y é " + circulo.getCoordenadaY()
            + "\nO radio é " + circulo.getRadio();
        circulo.setCoordenadaX(35);
        circulo.setCoordenadaY(20);
        circulo.setRadio(4.2);
        DecimalFormat dousDixitos = new DecimalFormat("0.00");
        saida += "\nO diametro é " + dousDixitos.format(circulo.obterDiametro());
        saida += "\nA circunferencia é " + dousDixitos.format(circulo.obterCircunferencia());
        saida += "\nA área é " + dousDixitos.format(circulo.obterSuperficie());
        System.out.println(saida);

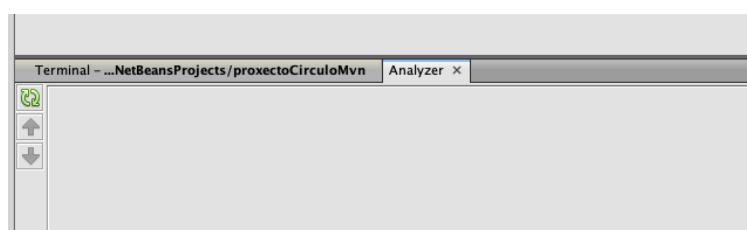
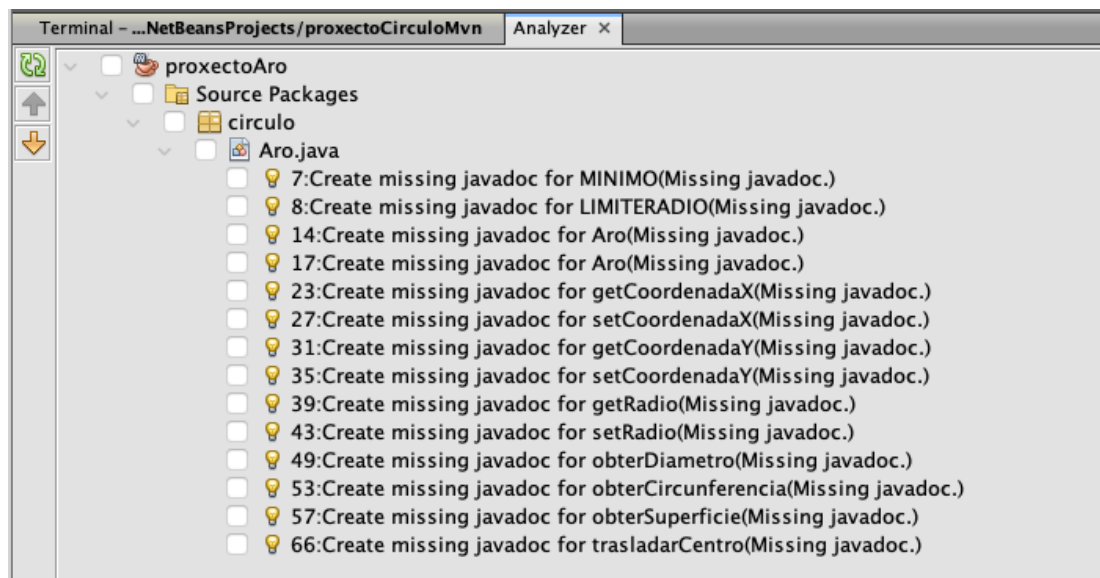
        System.out.println(saida);
        System.exit(0);
    }
}

Terminal - ...NetBeansProjects/proxectoCirculoMvn x
• proxectoCirculoMvn git:(refactorizacion) git checkout master
switched to branch 'master'
• proxectoCirculoMvn git:(master) git merge refactorizacion
Updating 88215ce..6bc1bea
Fast-forward
 1 +
23 ++++++
71 ++++++
69 -----
30 -----
84 ++++++
6 files changed, 152 insertions(+), 126 deletions(-)
create mode 100644 .gitignore
create mode 100644 src/main/java/circulo/Aro.java
delete mode 100644 src/main/java/circulo/Circulo.java
rename src/test/java/circulo/{CirculoTest.java => AroTest.java} (52%)
• proxectoCirculoMvn git:(master)
```

7. Crea unha rama documentacion e móvete a ela.

```
→ proxectoAro git:(master) git checkout documentacion
Switched to branch 'documentacion'
→ proxectoAro git:(documentacion)
```

8. Usa o analizador de javadoc para verificar se está completamente documentado



9. Xera o javadoc e garda todo o código documentado no repositorio

PACKAGE CLASS USE TREE INDEX HELP

Package circulo

package circulo

Class Summary

| Class | Description |
|-------|---|
| Aro | Probas de refactorización en NetBeans coa clase Aro |
| Main | Pruebas de refactorización en NetBeans con la clase Aro |

```
Terminal - ...NetBeansProjects/proxectoCirculoMvn x
no changes added to commit (use "git add" and/or "git commit -a")
→ proxectoCirculoMvn git:(documentacion) x git add .
→ proxectoCirculoMvn git:(documentacion) x git commit -m "codigo documentado"
[documentacion 132c5e6] codigo documentado
Committer: Rodrigo Dantas <rodrigodantas@mac-rodrigo.local>
```

10. Instala o plugin de NetBeans SonarLint integration for Netbeans

1.0</modelVersion>

Plugins

Updates Available Plugins (2/49) Downloaded Installed (12) Settings

Check for Newest Search: sonar

| Install | Name | Category | Source |
|-------------------------------------|--------------------|-------------------|--------|
| <input type="checkbox"/> | nb-sonarlint | io.github.hmvi... | |
| <input checked="" type="checkbox"/> | sonarlint4netbeans | Java | |

sonarlint4netbeans
Community Contributed Plugin
Version: 2.5.0
Author: Philippe FICHET
Date: 23/10/21
Source: NetBeans Plugin Portal
Homepage: <https://github.com/philippefichet/sonarlint4netbeans>
Plugin Description
SonarLint integration for Netbeans
Features:

- Support Java, Javascript, PHP and HTML
- Annotation in editor
- "Analyze with SonarLint" action on Project/package/files, Favorites tab, ...

Install 1 plugin selected, 47MB

Close Help

tname. Please check that they are accurate.
scape by setting them explicitly:

11. Revisa se algunha das suxestións

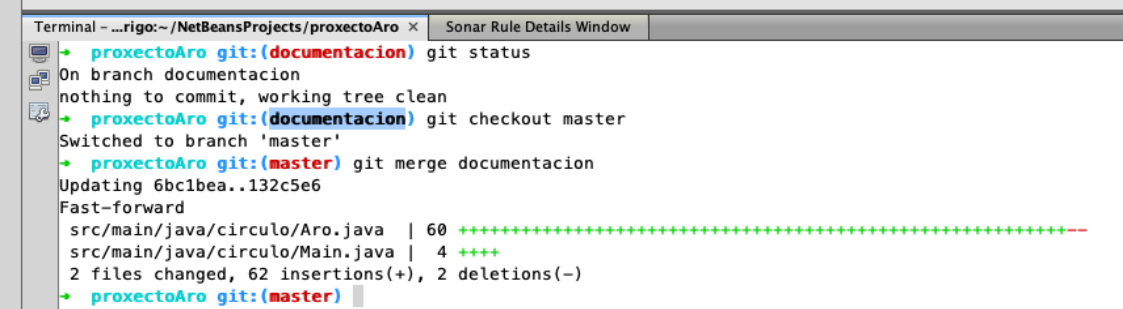
Terminal - rodrigodantas@mac-rodrigo:/ SonarLint Analyzer Window x

proxectoAro x

Nodes

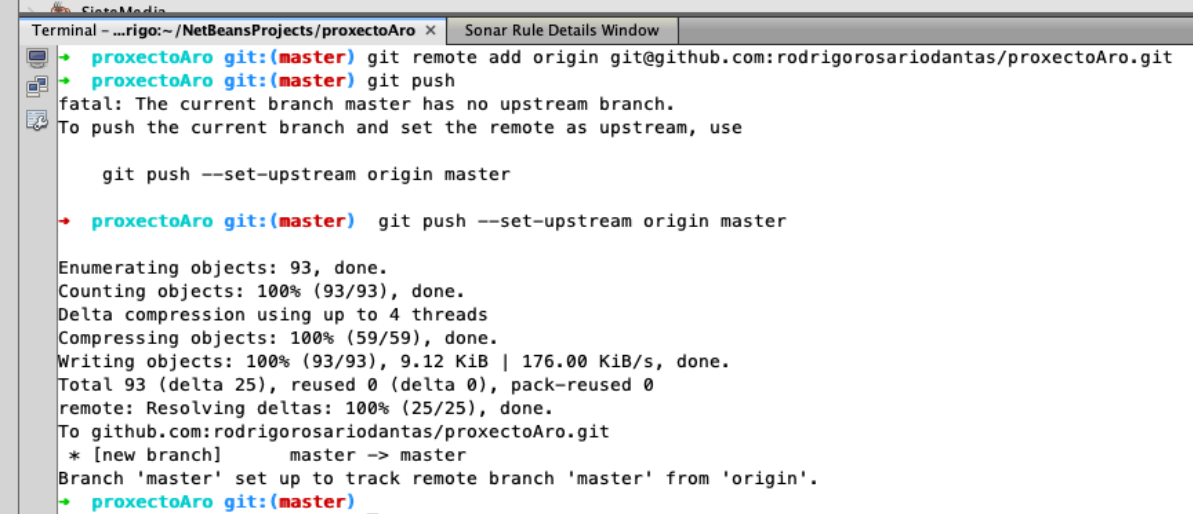
Analyze running, 0 issue found

12. Fusiona a rama master coa rama documentación



```
Terminal - ...rigo:~/NetBeansProjects/proxectoAro x Sonar Rule Details Window
→ proxectoAro git:(documentacion) git status
On branch documentacion
nothing to commit, working tree clean
→ proxectoAro git:(documentacion) git checkout master
Switched to branch 'master'
→ proxectoAro git:(master) git merge documentacion
Updating 6bc1bea..132c5e6
Fast-forward
 src/main/java/circulo/Aro.java | 60 ++++++
 src/main/java/circulo/Main.java | 4 +
 2 files changed, 62 insertions(+), 2 deletions(-)
→ proxectoAro git:(master)
```

13. Crea un repositorio de nome proxectoAro en GitHub. Sincroniza o repositorio local



```
Terminal - ...rigo:~/NetBeansProjects/proxectoAro x Sonar Rule Details Window
→ proxectoAro git:(master) git remote add origin git@github.com:rodrigorosariodantas/proxectoAro.git
→ proxectoAro git:(master) git push
fatal: The current branch master has no upstream branch.
To push the current branch and set the remote as upstream, use

    git push --set-upstream origin master

→ proxectoAro git:(master) git push --set-upstream origin master

Enumerating objects: 93, done.
Counting objects: 100% (93/93), done.
Delta compression using up to 4 threads
Compressing objects: 100% (59/59), done.
Writing objects: 100% (93/93), 9.12 KiB | 176.00 KiB/s, done.
Total 93 (delta 25), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (25/25), done.
To github.com:rodrigorosariodantas/proxectoAro.git
 * [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
→ proxectoAro git:(master)
```