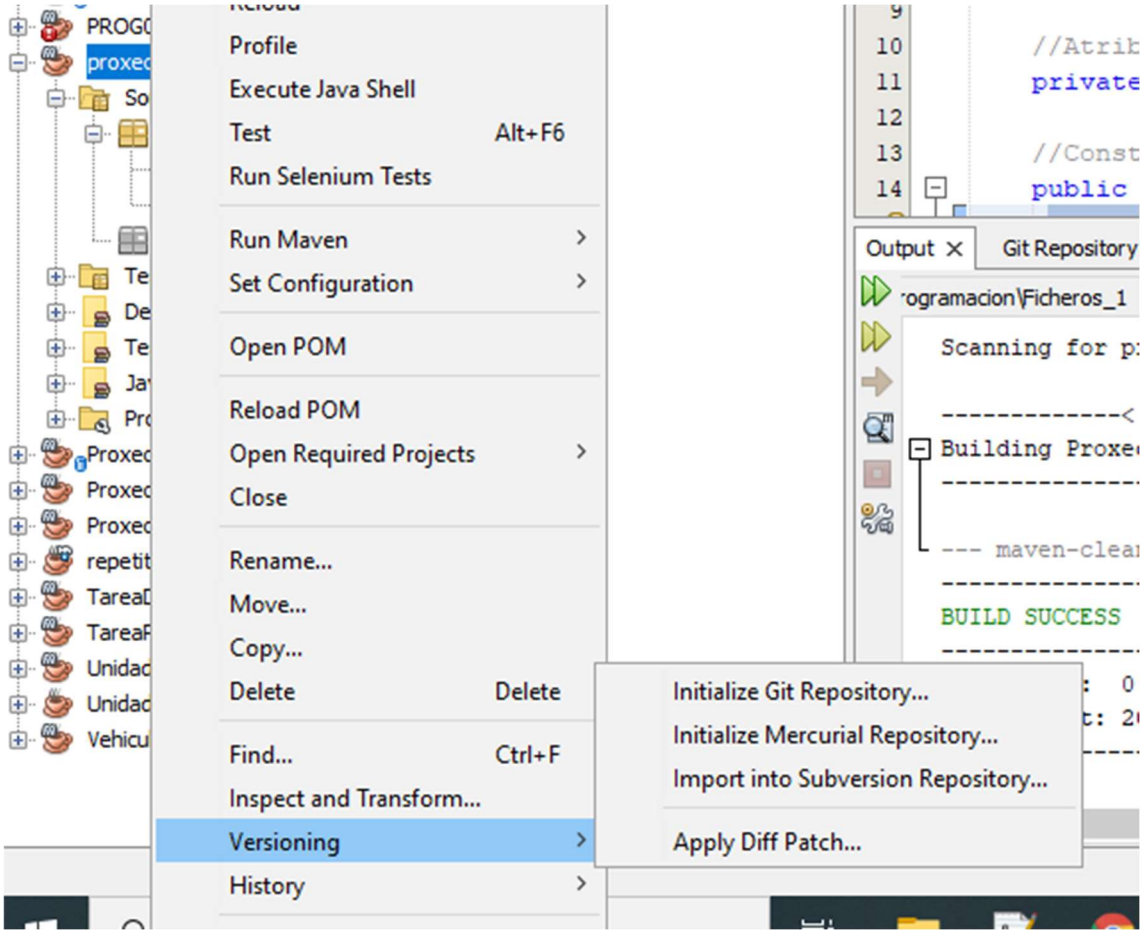
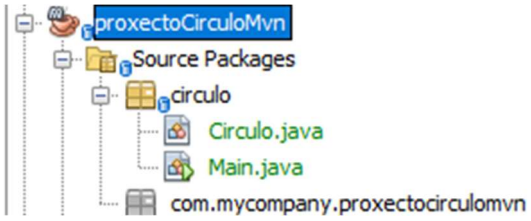
Tarefa 2 - UD04 - Refactorización - Documentación - SonarLint - Circulo

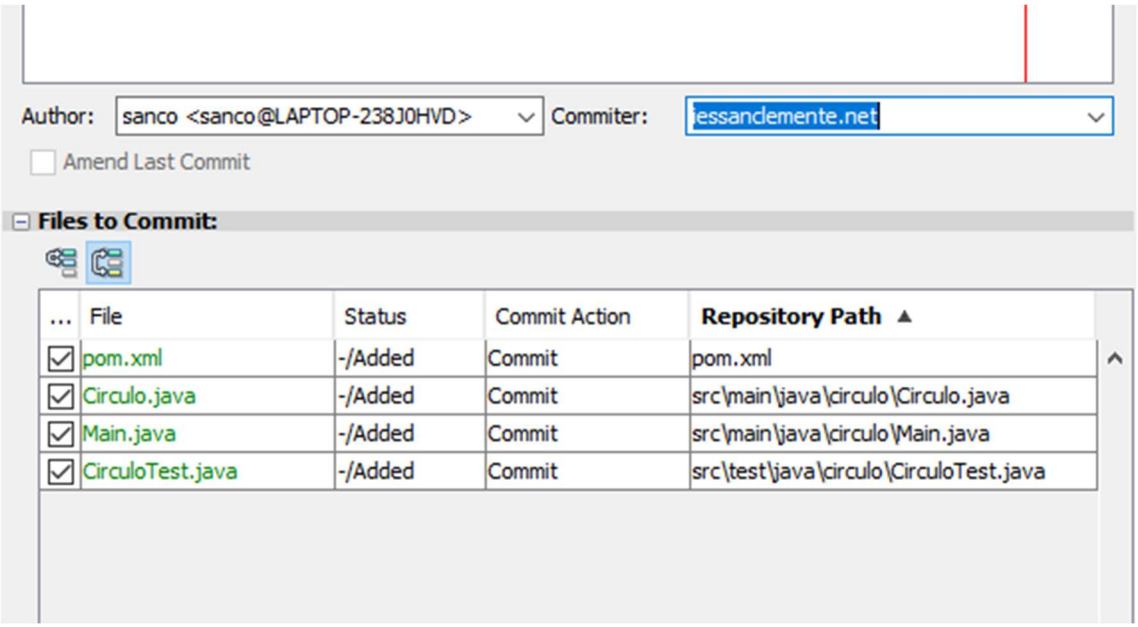
-Crea un **repositorio local Git** co proxecto **proxectoCirculoMvn**.

Crease o repositorio



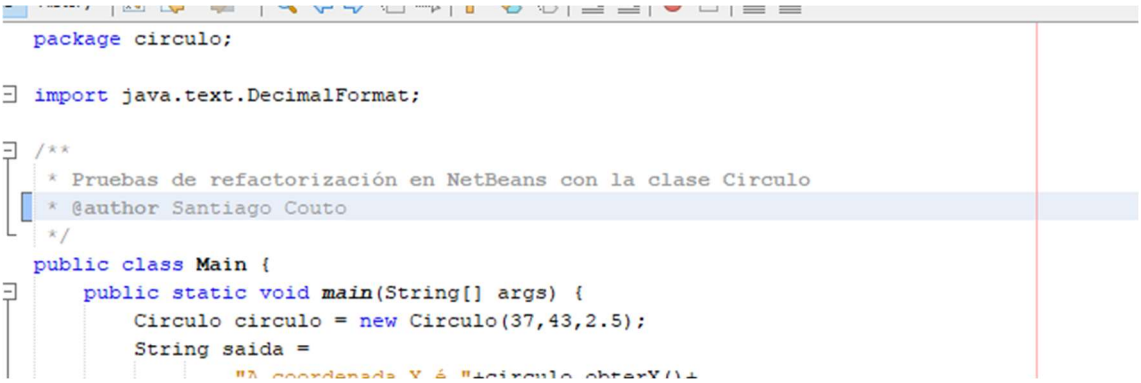


Executamos o Comit



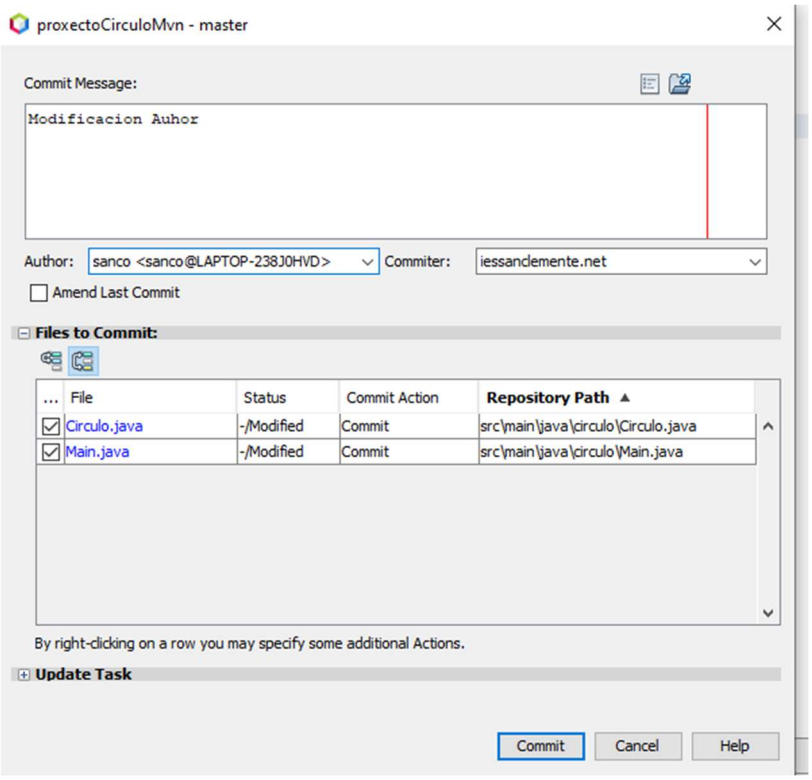
-Cambia o **nome** do **autor** de todas as clases do proxecto polo teu nome.

Modificase o nome de autor de ambas clases:



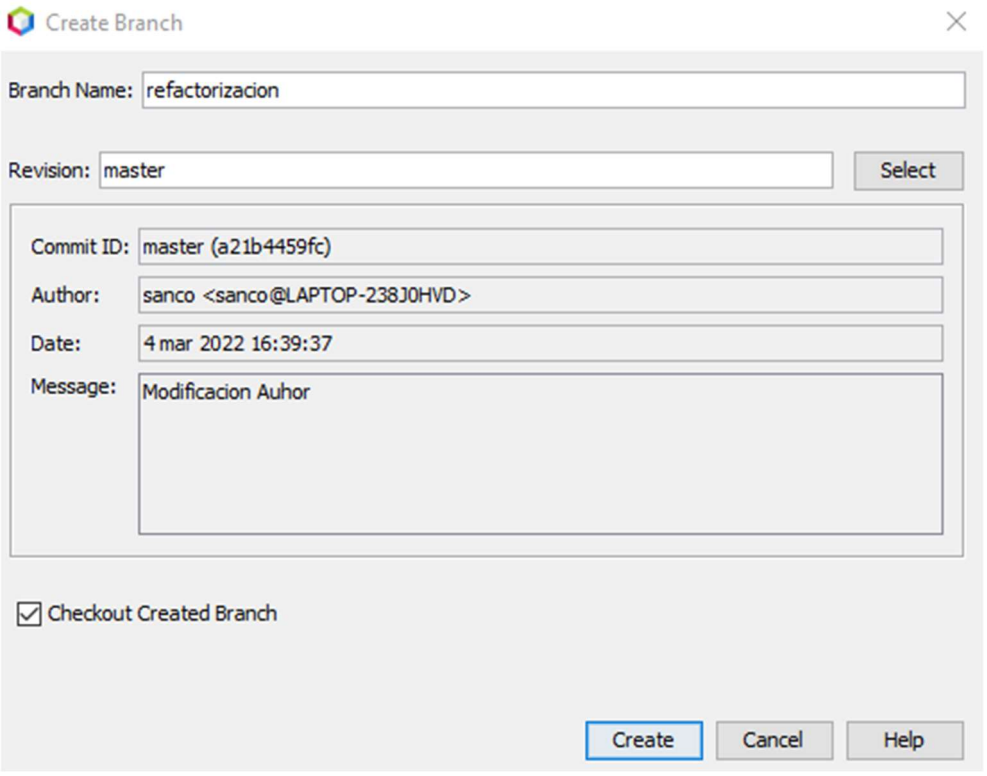
```
package circulo;

import java.text.DecimalFormat;

/**
 * Pruebas de refactorización en NetBeans con la clase Circulo
 * @author Santiago Couto
 */
public class Main {
    public static void main(String[] args) {
        Circulo circulo = new Circulo(37,43,2.5);
        String saida =
```

-Garda no **repositorio** o proxecto.

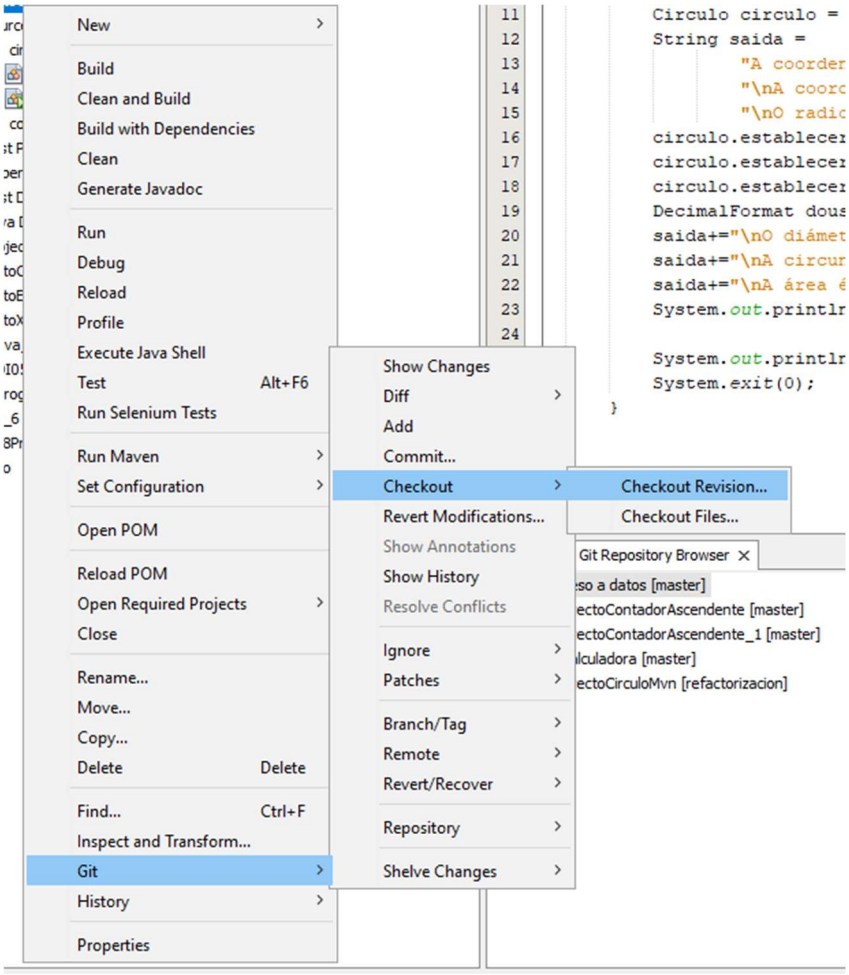


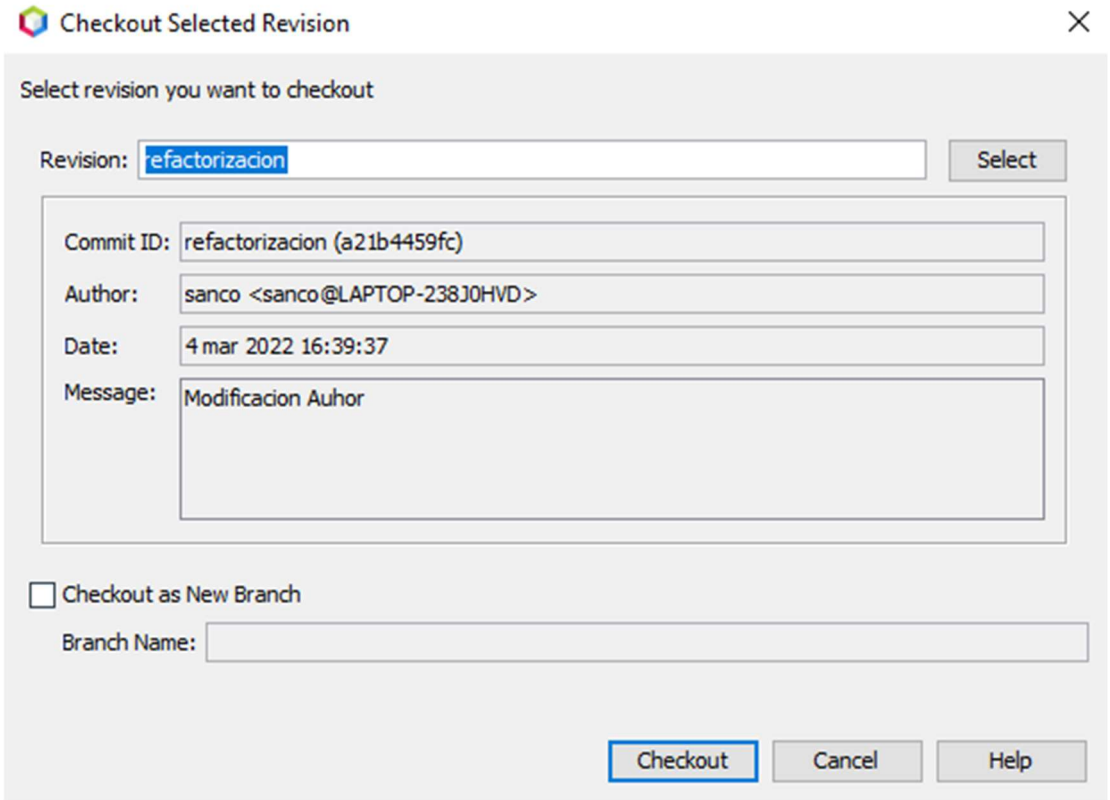
Crea unha **rama refactorizacion** e **móvete** a ela. Realiza todas as **refactorizacións** nesa **rama**.

Creacion da Rama refactorización



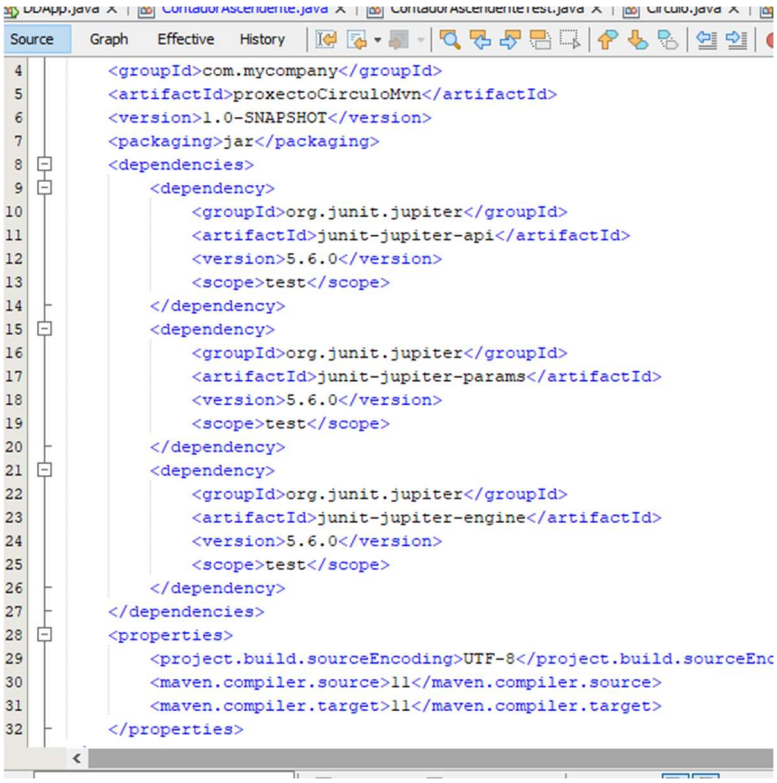
E movemonos a ela


New
Build
Clean and Build
Build with Dependencies
Clean
Generate Javadoc
Run
Debug
Reload
Profile
Execute Java Shell
Test Alt+F6
Run Selenium Tests
Run Maven
Set Configuration
Open POM
Reload POM
Open Required Projects
Close
Rename...
Move...
Copy...
Delete Delete
Find... Ctrl+F
Inspect and Transform...
Git
History
Properties
Show Changes
Diff
Add
Commit...
Checkout
Revert Modifications...
Show Annotations
Show History
Resolve Conflicts
Ignore
Patches
Branch/Tag
Remote
Revert/Recover
Repository
Shelve Changes
Checkout Revision...
Checkout Files...
Git Repository Browser
Circulo circulo =
String saida =
"A coorder
"\nA coorc
"\nO radic
circulo.establecer
circulo.establecer
circulo.establecer
DecimalFormat dous
saida+="\nO diámet
saida+="\nA circur
saida+="\nA área é
System.out.println
System.out.println
System.exit(0);


Checkout Selected Revision
Select revision you want to checkout
Revision: refactorizacion
Select
Commit ID: refactorizacion (a21b4459fc)
Author: sanco <sanco@LAPTOP-238J0HVD>
Date: 4 mar 2022 16:39:37
Message: Modificacion Auhor
Checkout as New Branch
Branch Name:
Checkout
Cancel
Help

Realiza as seguintes refactorizacións sobre o **proxectoCirculoMvn** que dispón dunha clase de probas unitarias **JUnit5**. Comproba se está instalado o **Maven Surefire Plugin**. No caso de que non estea instalado, instálao.

Comprobase que o plugin non se atopa instalado



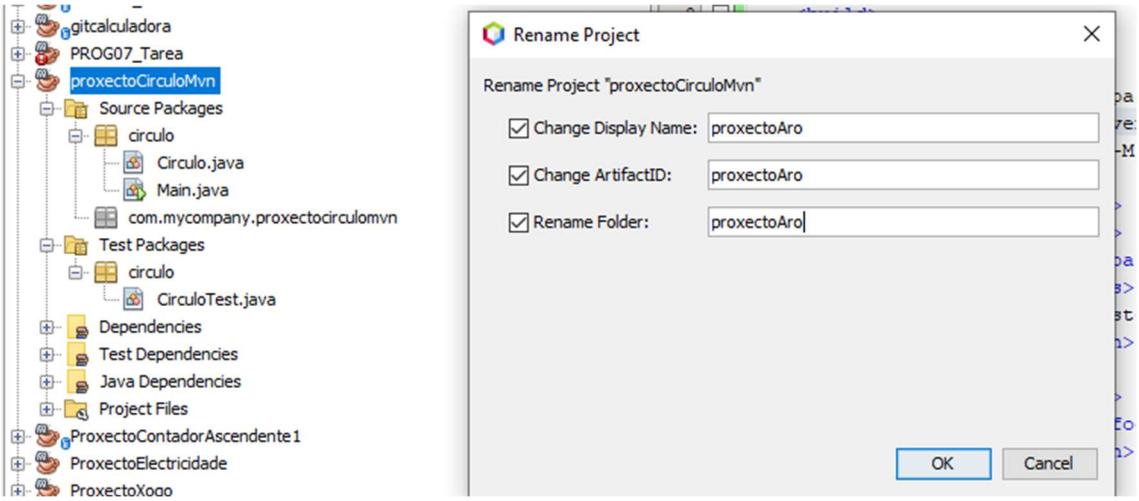
Instalase

Despois de realizar cada refactorización, débese comprobar coas probas unitarias que a clase segue pasando as probas.

Unha vez comprobado que tras o **cambio** pasa as probas, **garda** no **repositorio** o código indicando o cambio feito.

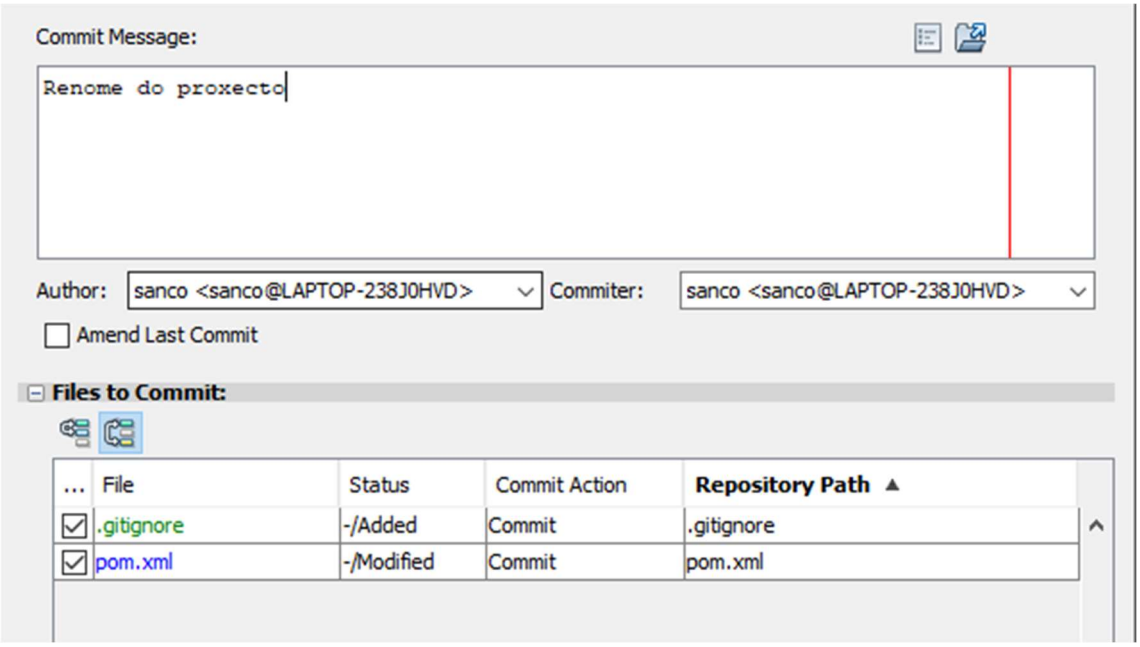
As refactorizacións son as seguintes:

- **Renomea** o **nome** do **proxecto** a **proxectoAro** cambiando tamén o nome do cartafol que o contén.



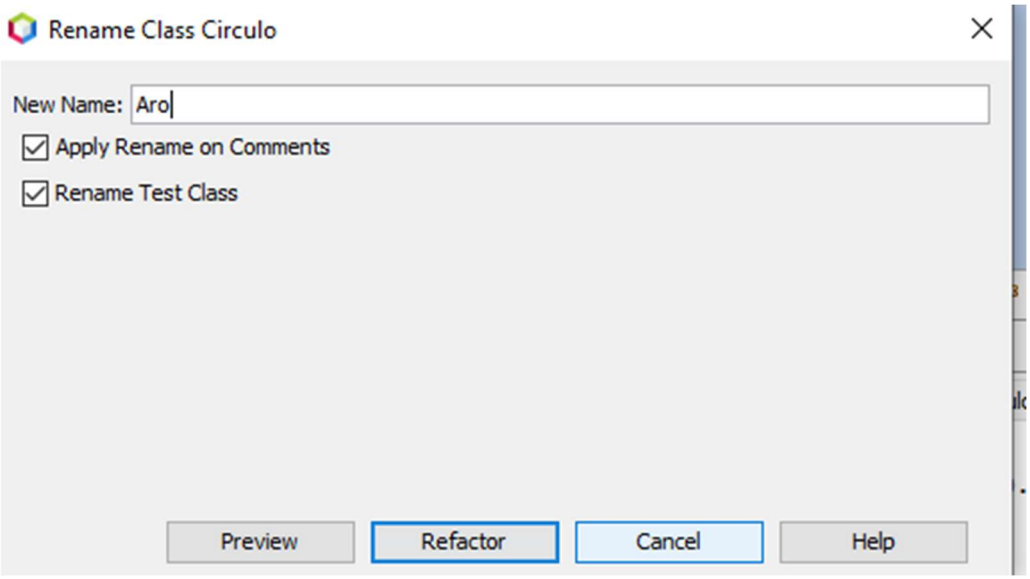
Realizamos Pruebas

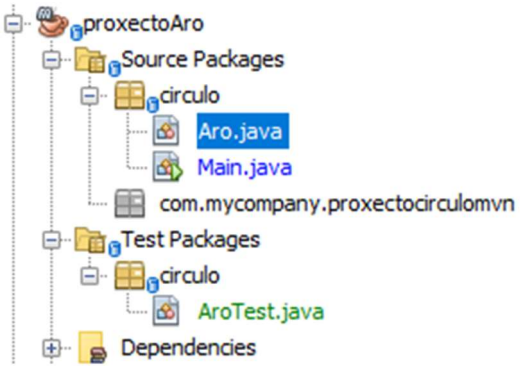
```
obterY
Tests run: 10, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.07 s - in circulo.Ci

Results:

Tests run: 10, Failures: 0, Errors: 0, Skipped: 0

------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  2.449 s
Finished at: 2022-03-04T17:08:01+01:00
------------------------------------------------------------------------
```



- **Renomea** a clase **Circulo** por **Aro** fixándote en **renomear** a **clase** de **probas** tamén e os comentarios. Previsualiza o cambio antes de confirmalo para saber exactamente o que vai cambiar. Cambia, se é necesario, utilizando **Edit >Replace...** todas as ocorrencias de **Circulo** por **Aro**.

Cambiamos o nome da clase dos comentarios e do test

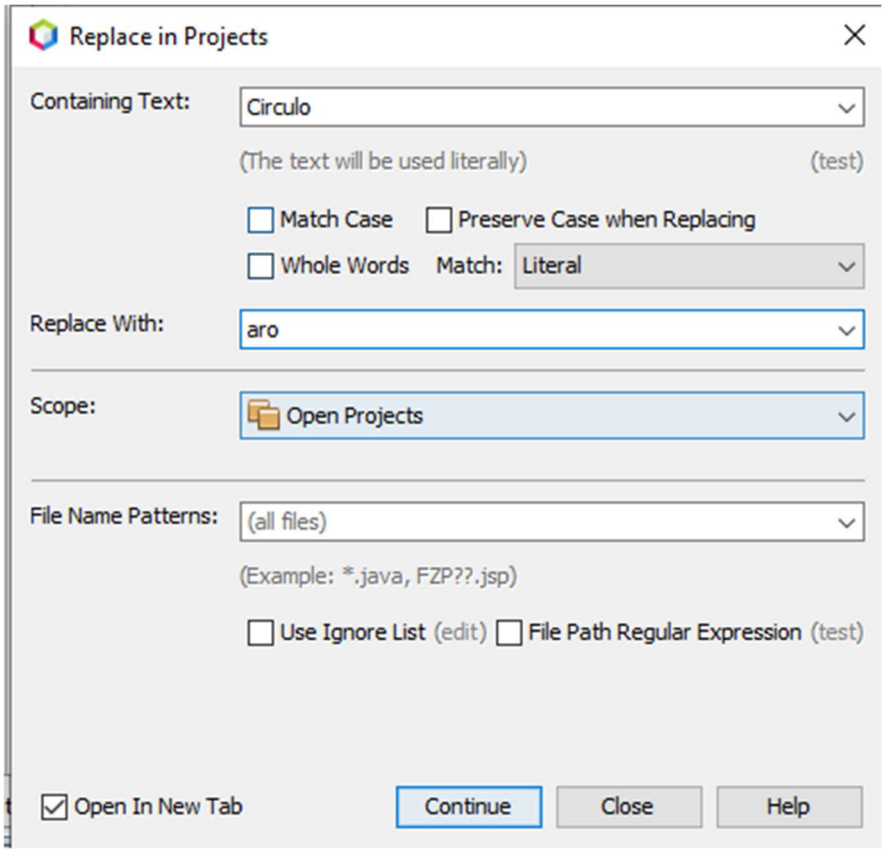




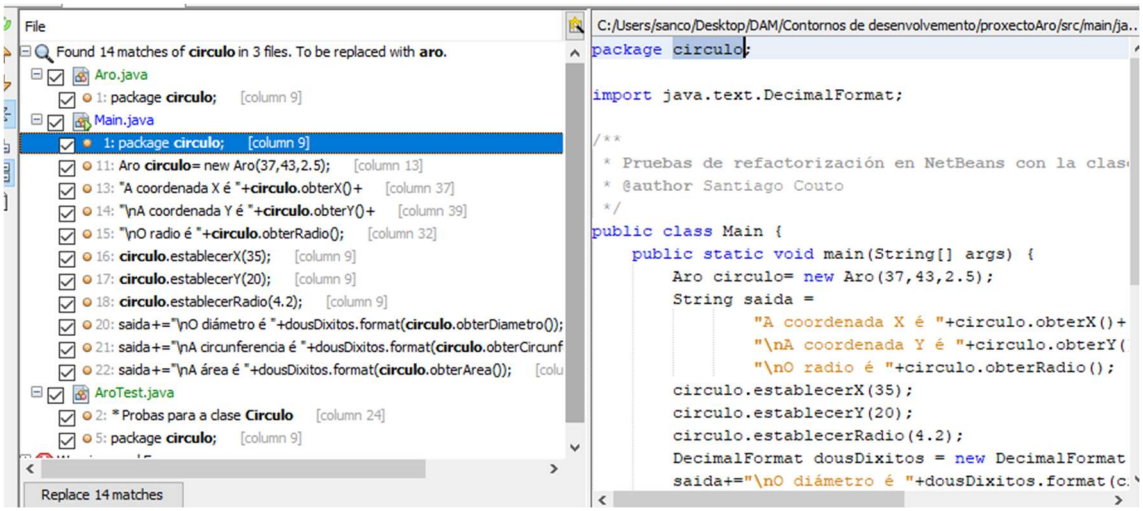
Comprobamos o cambio na Clase main

```
4
5   /**
6    * Pruebas de refactorización en NetBeans con la clase Aro
7    * @author Santiago Couto
8    */
9   public class Main {
0       public static void main(String[] args) {
1           Aro circulo = new Aro(37,43,2.5);
2           String saida =
3                   "A coordenada X é "+circulo.obterX()+
```

Por ultimo remplazamos as ocorrencias:



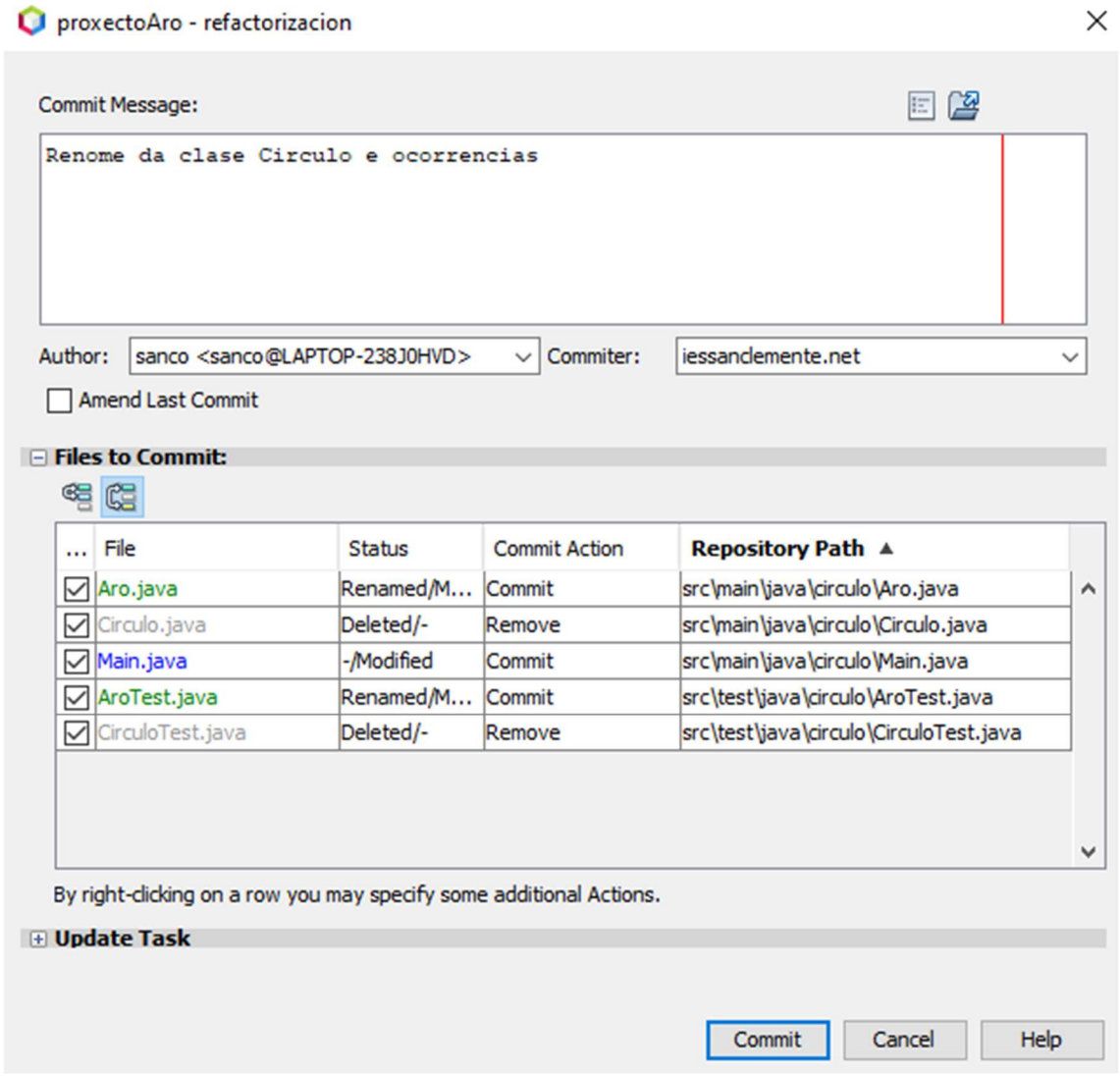
Revisanse as 14 ocorrencias e modificase todas menos as do package




```
package circulo;

import java.text.DecimalFormat;
```

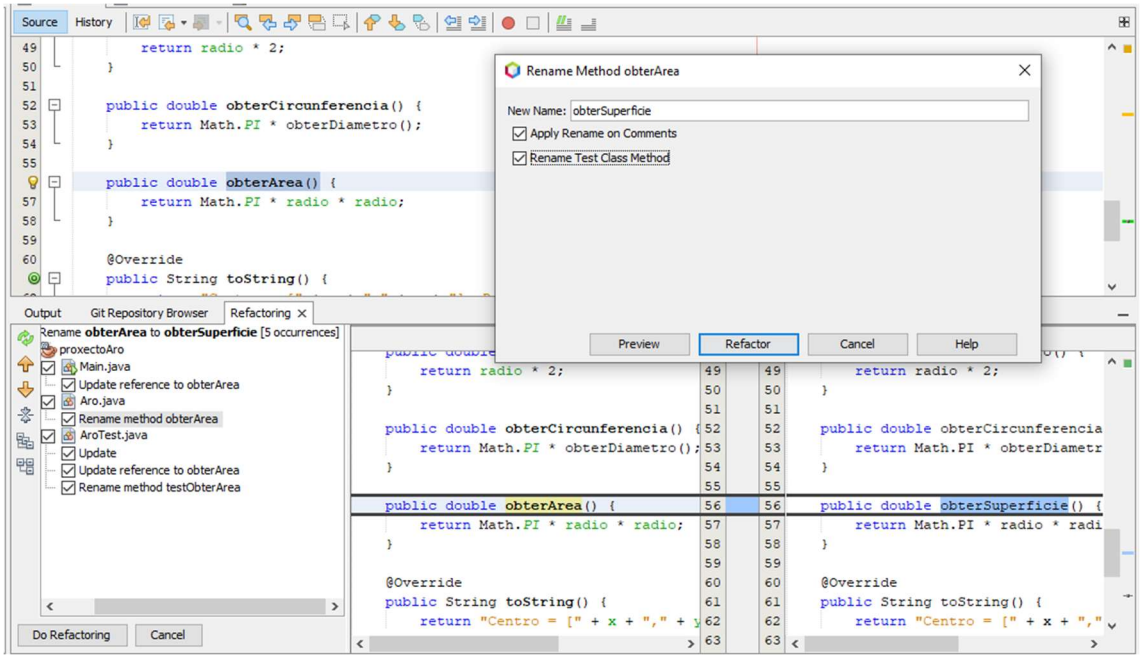
Probase o test

```
Results:

Tests run: 10, Failures: 0, Errors: 0, Skipped: 0

------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  2.438 s
```



- **Renomea** o método **obterArea** por **obterSuperficie**.

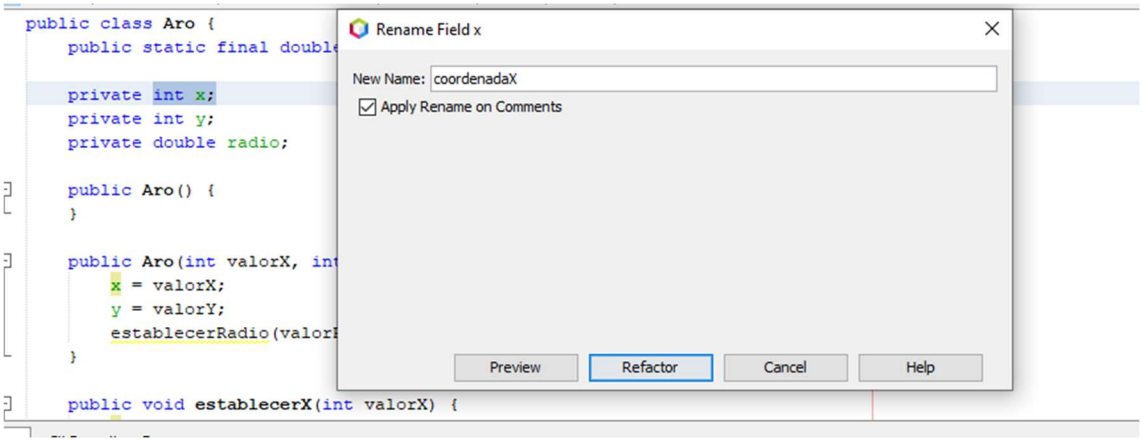
  Renomeamos o metodo en todos os archivos donde esta involucrado:



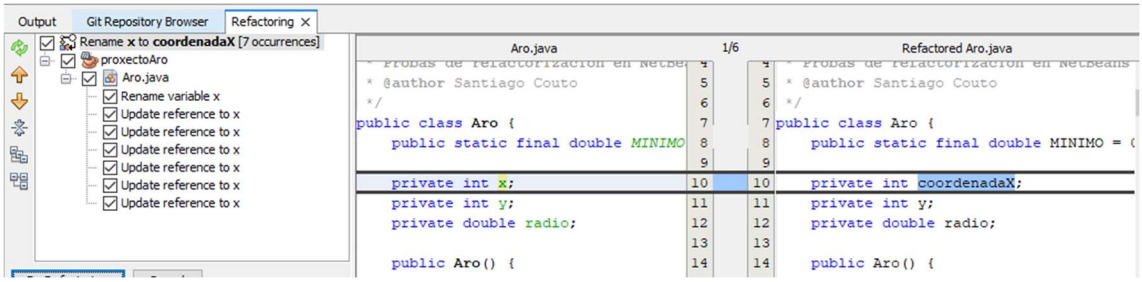

```
Results:

Tests run: 10, Failures: 0, Errors: 0, Skipped: 0

------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  2.493 s
Finished at: 2022-03-04T17:38:27+01:00
------------------------------------------------------------------------
```

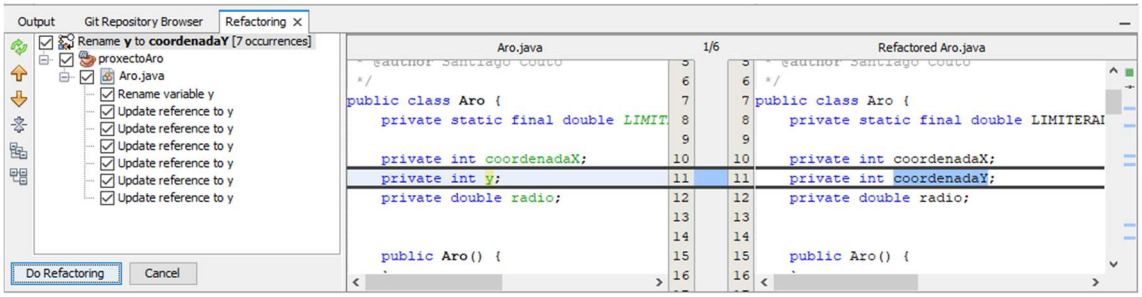
- **Renomea** os **campos x** e **y** por **coordenadaX** e **coordenadaY**.

Cambiamos o nombre de x



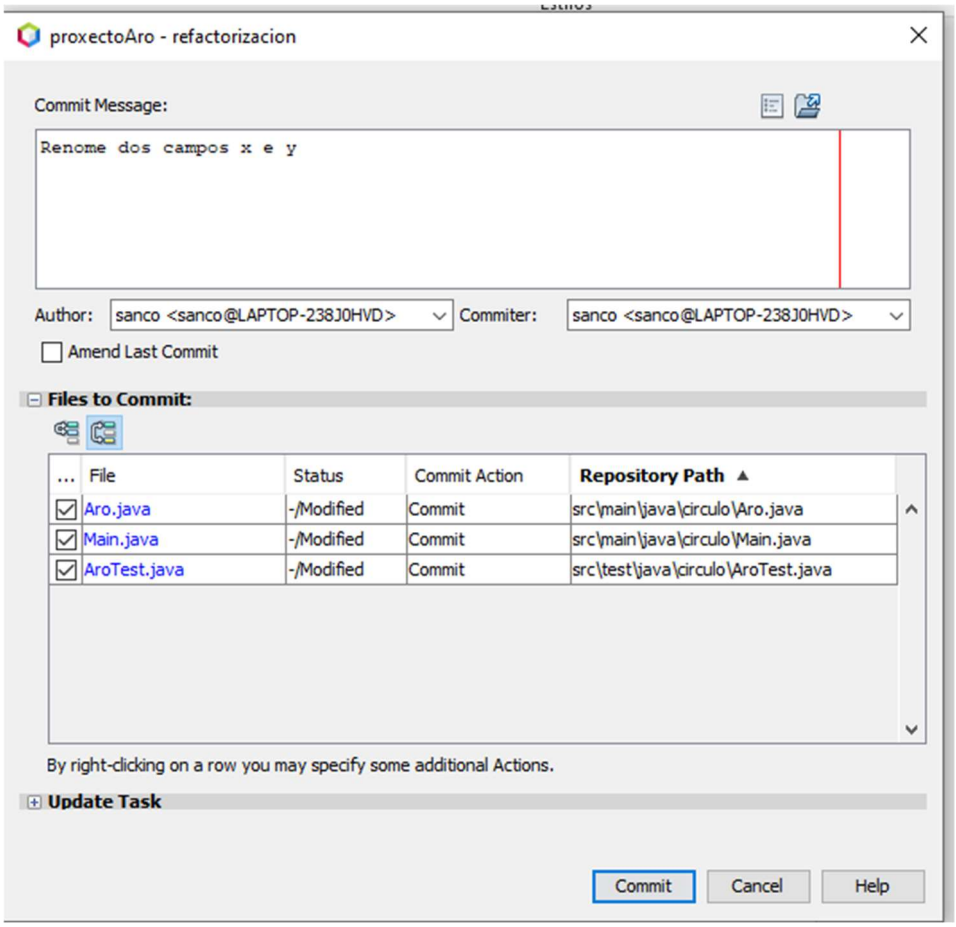
Cambiamos o nombre de y





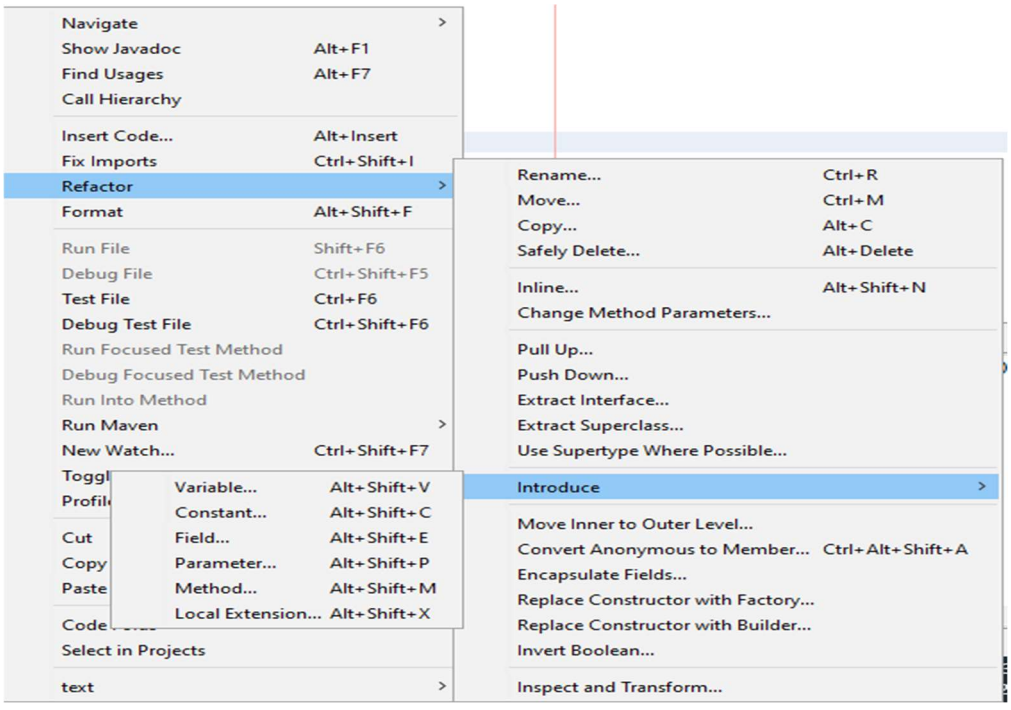
E facemos o Test

```
Results:

Tests run: 10, Failures: 0, Errors: 0, Skipped: 0

------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  4.162 s
Finished at: 2022-03-05T10:12:00+01:00
------------------------------------------------------------------------
```

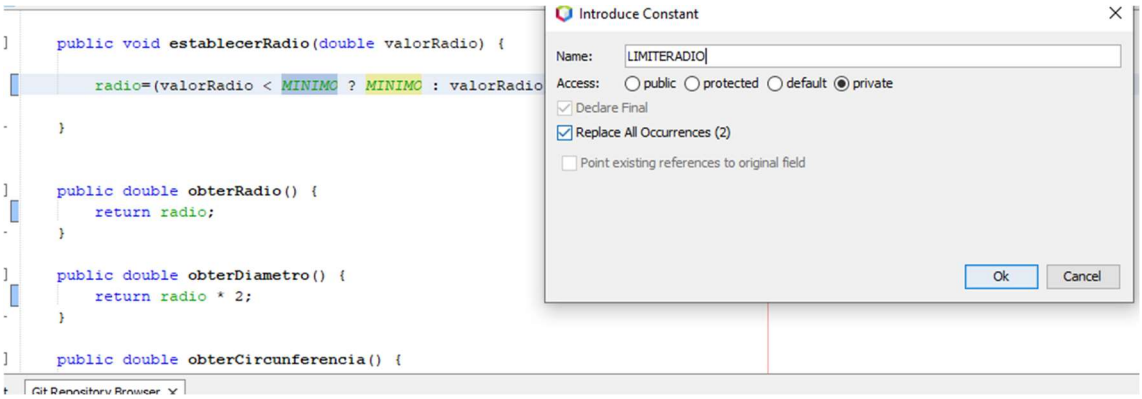


- **Introduce** a **constante LIMITERADIO** de tipo **double** co valor **0.0**.

Abrimos o submenu seleccionando o valor Minimo

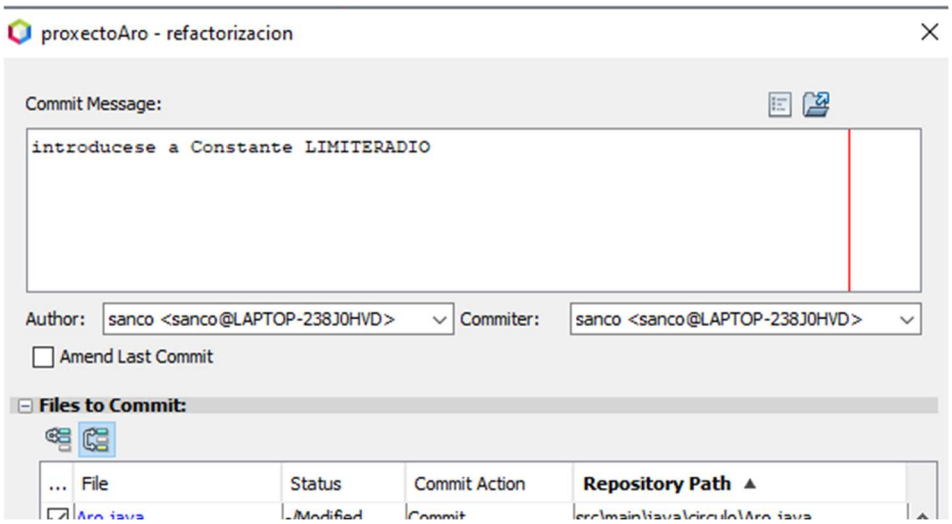


Remplazamos as duas ocurrencias

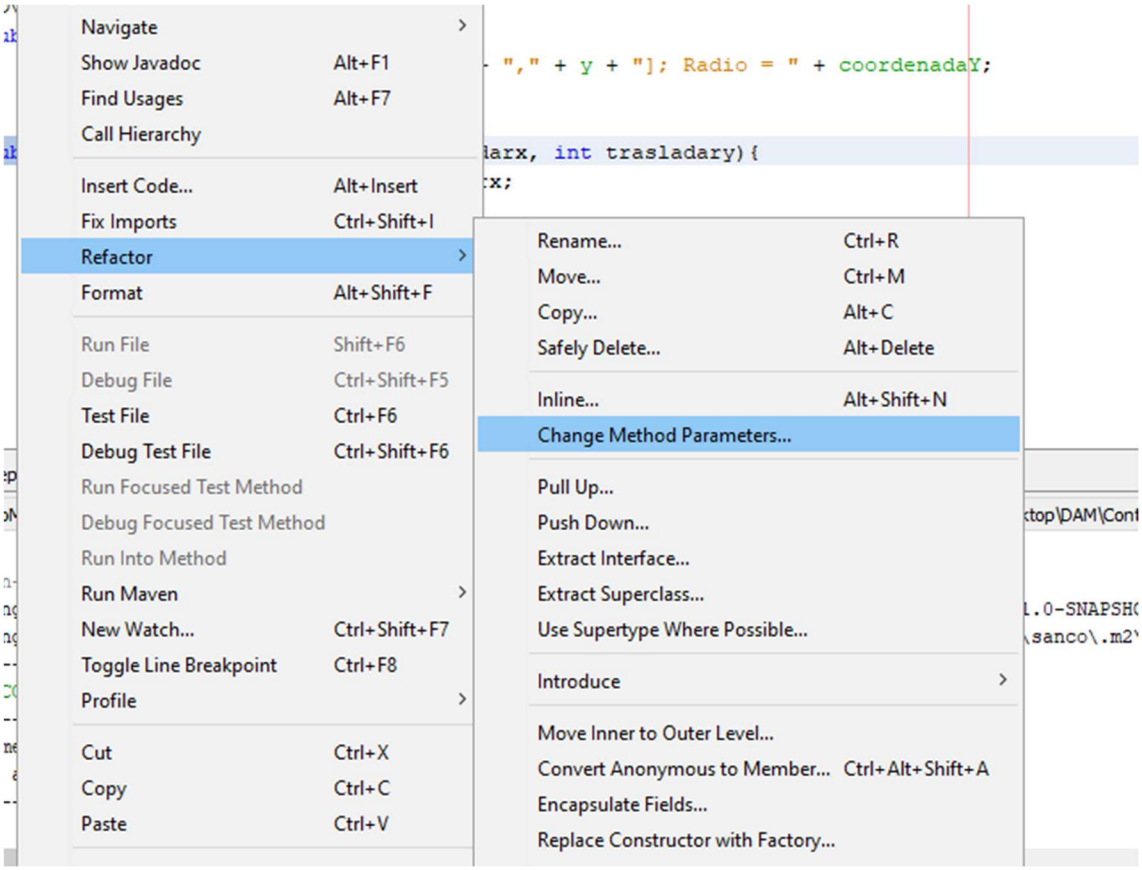


Realizase o Test

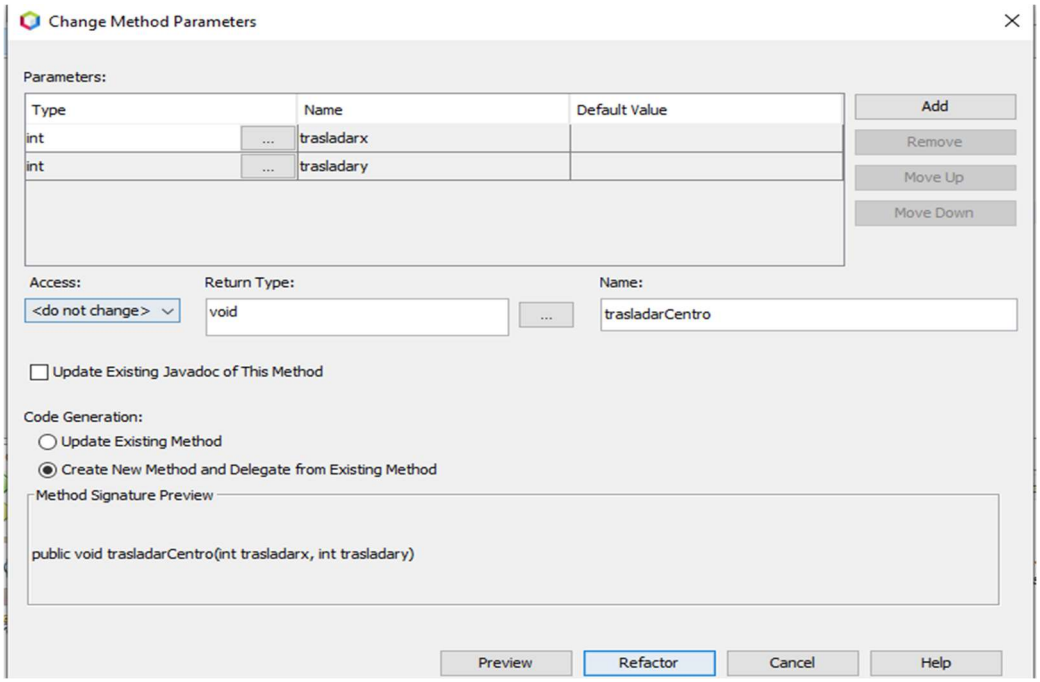
```
Results:

Tests run: 10, Failures: 0, Errors: 0, Skipped: 0

------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  2.443 s
Finished at: 2022-03-05T10:49:17+01:00
------------------------------------------------------------------------
```



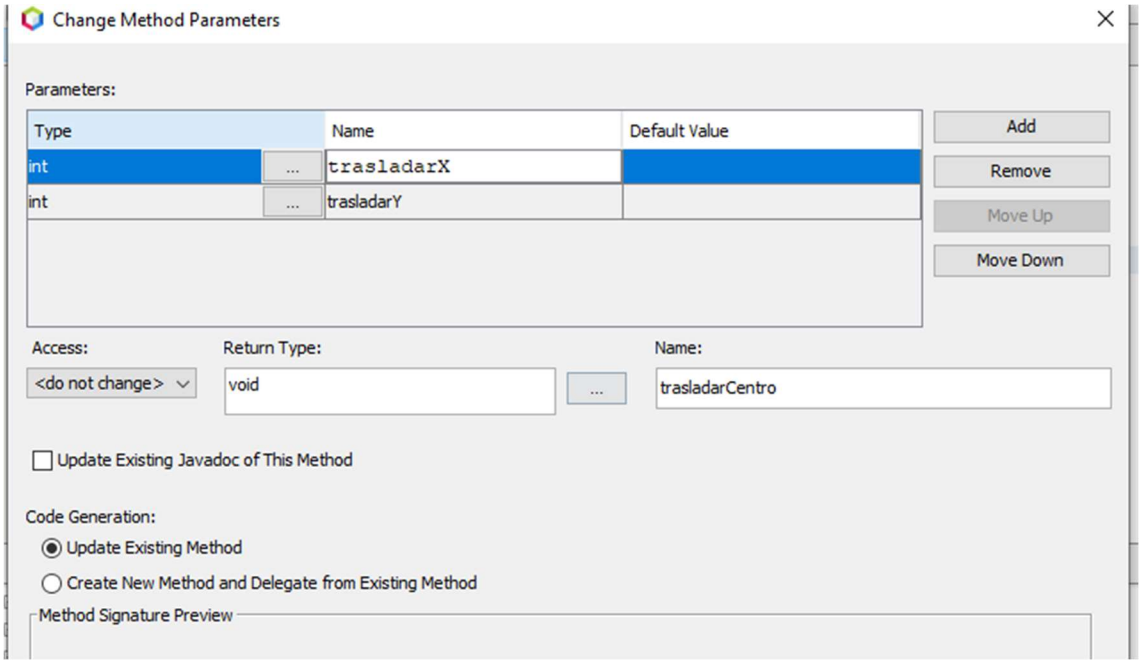
- **Cambia** os parámetros do método **trasladarCentro** para que sexan **trasladarX** e **trasladarY** de tipo **int**. Fai os cambios necesarios para que o código do método permita engadir á **coordenadaX** o valor de **trasladarX** e á **coordenadaY** o valor de **trasladarY**.



Abrese a seguinte ventana

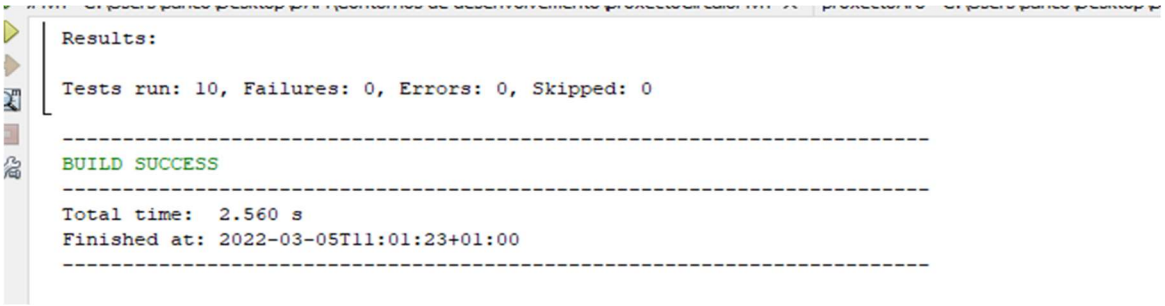


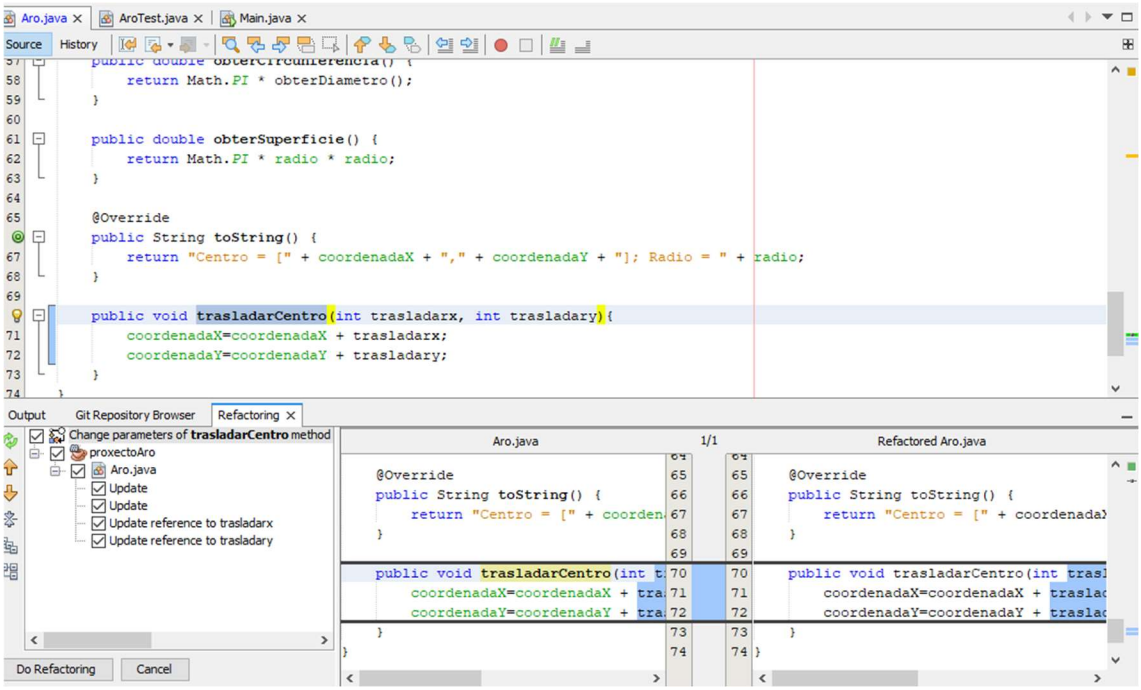
Indicase o novo nome que o metodo xa existe

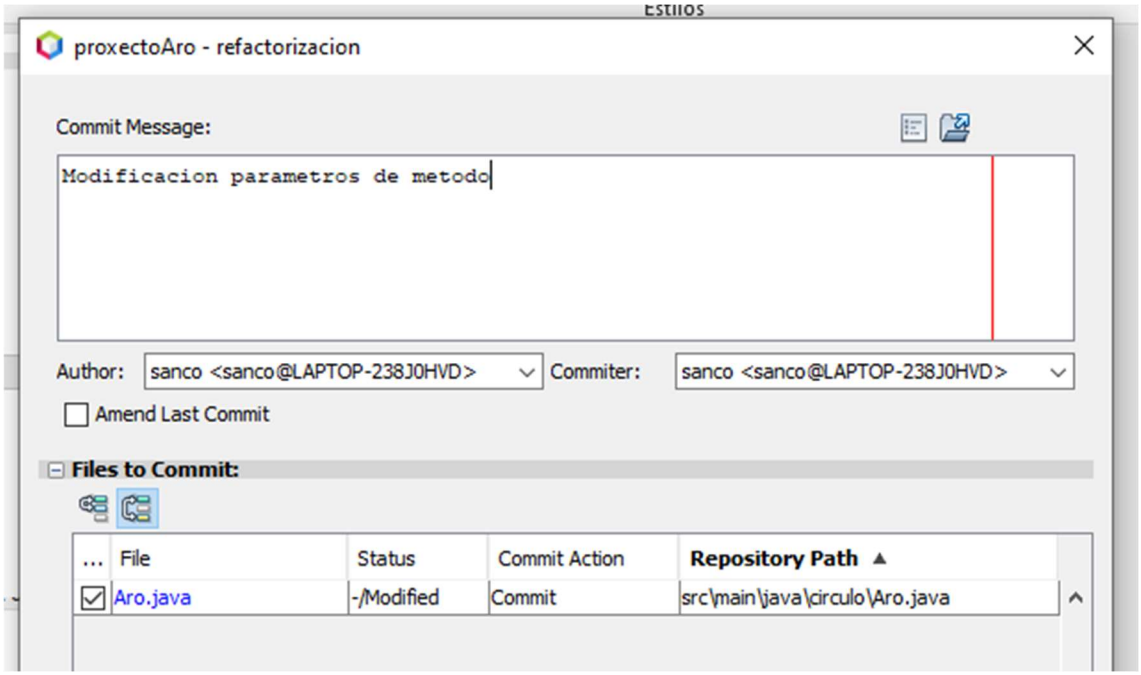


E modificase tanto os parametros como os valores de coordenadaX e coordenadaY

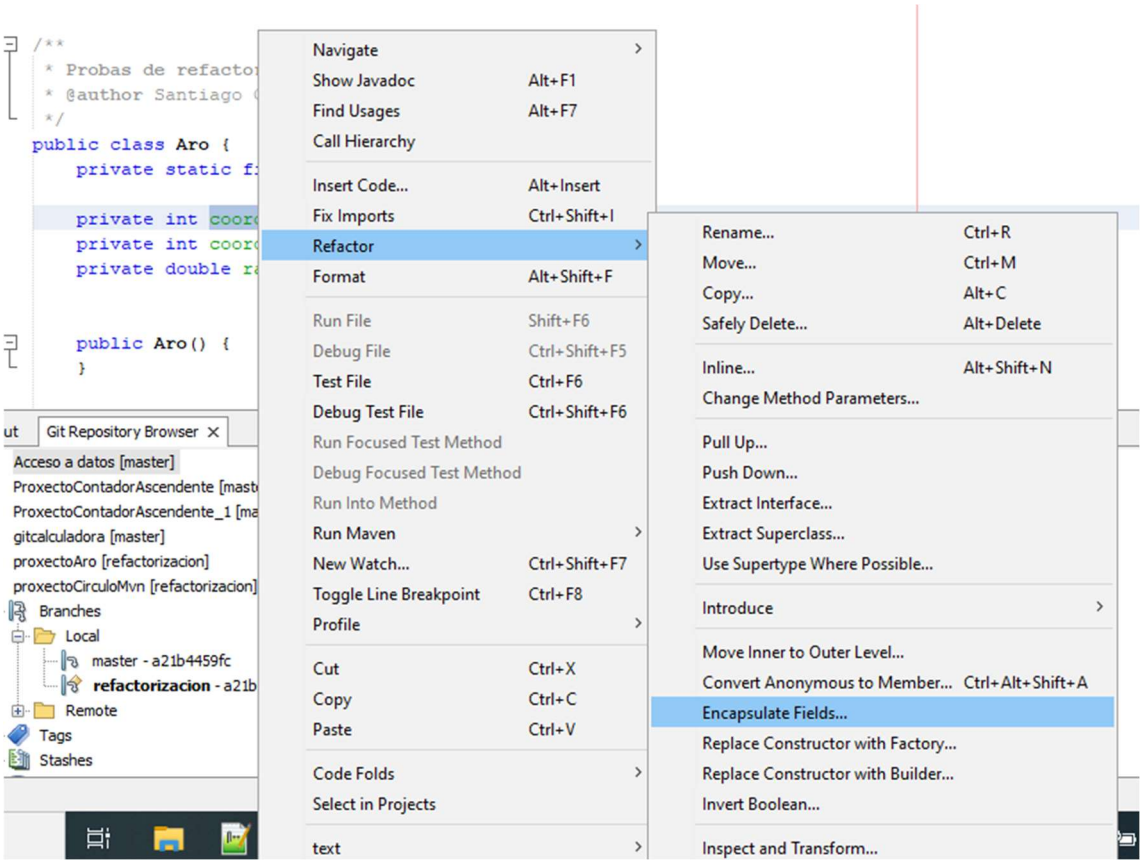
Facemos o Test e commiteamos



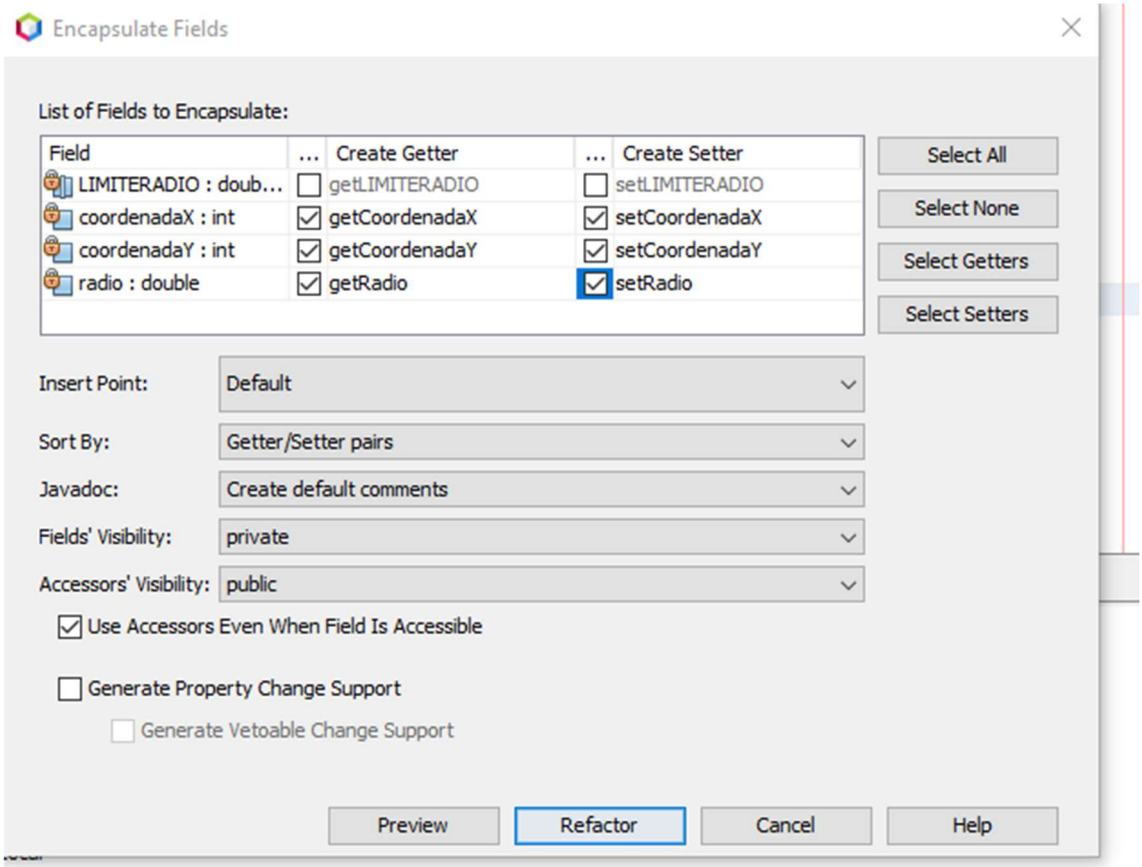




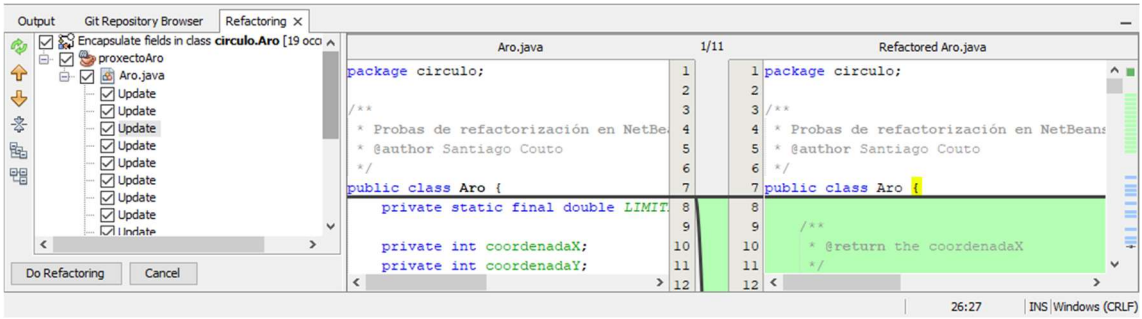
- **Encapsula** os tres campos da clase (**coordenadaX, coordenadaY**, **radio**).



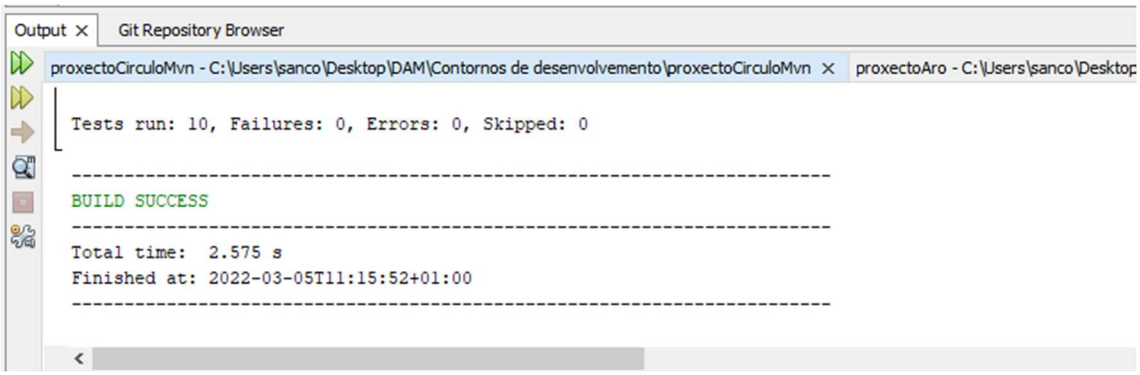
Modificanse os tres campos



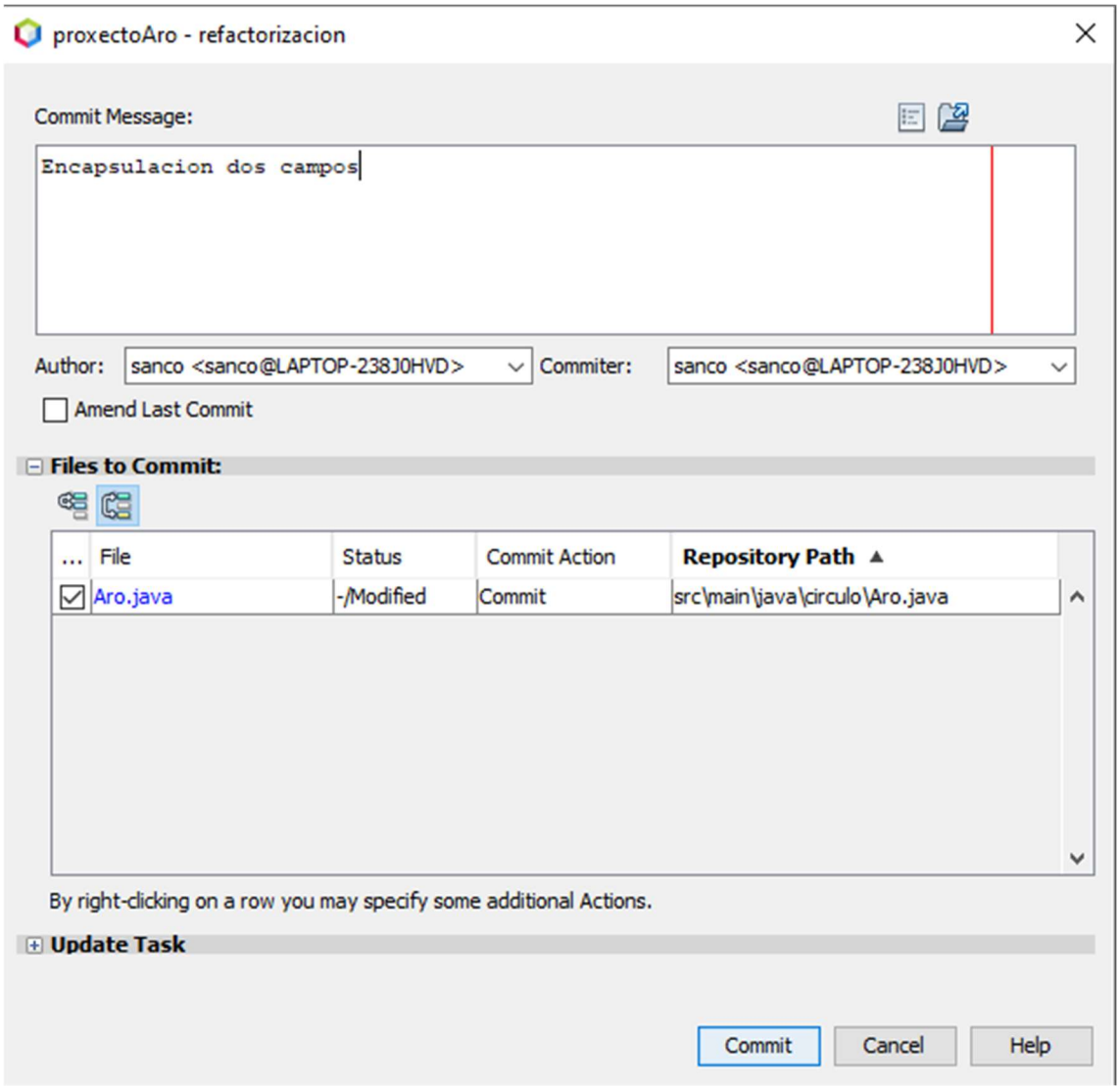
E previsualizase



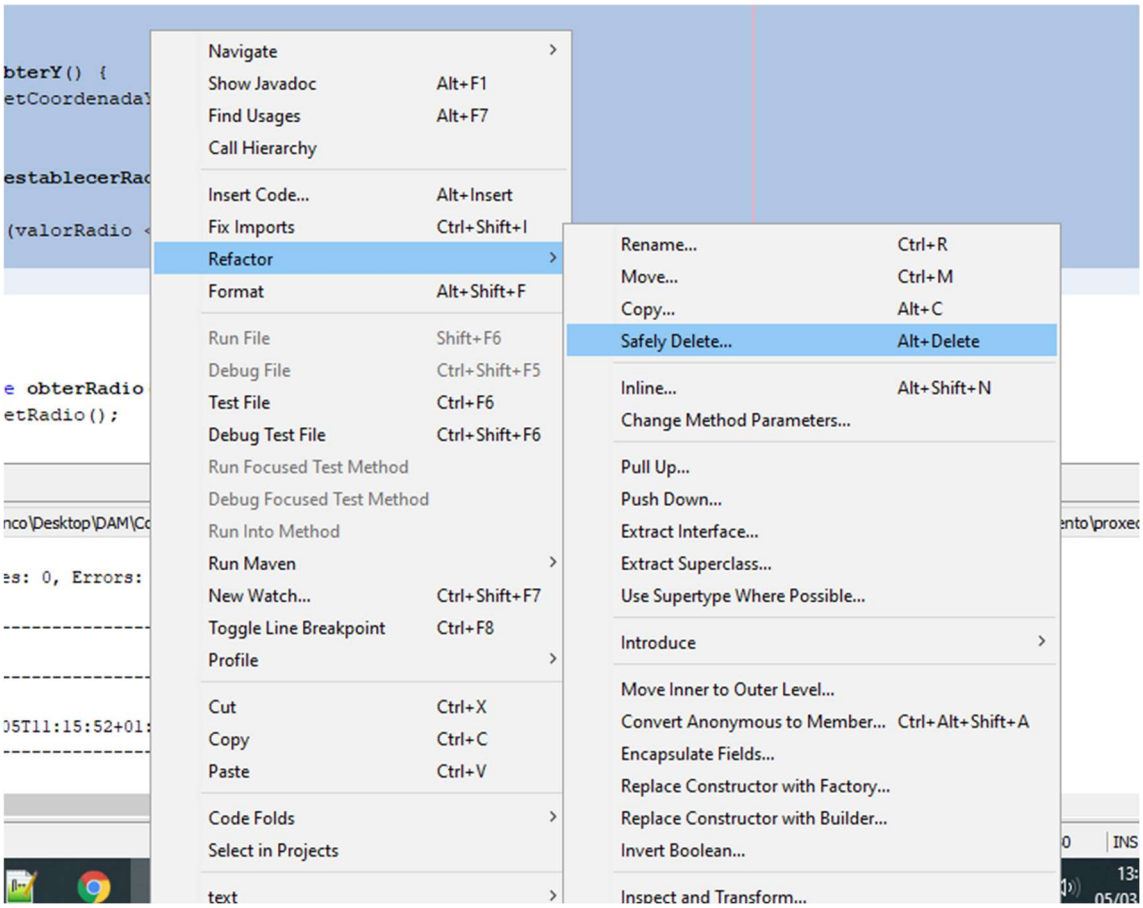
Facemos o test



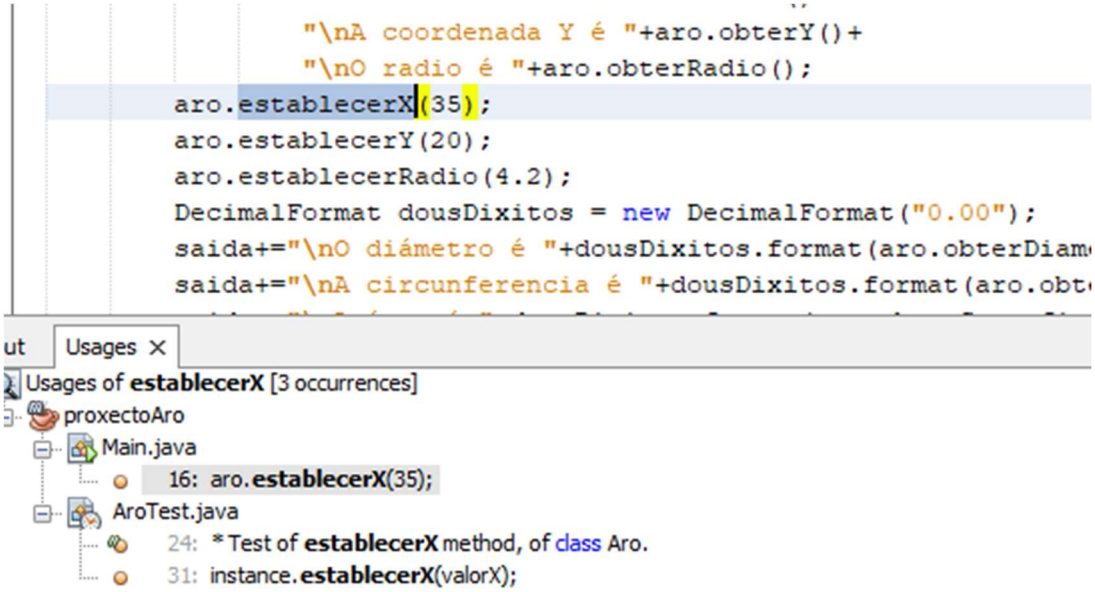
E commiteamos



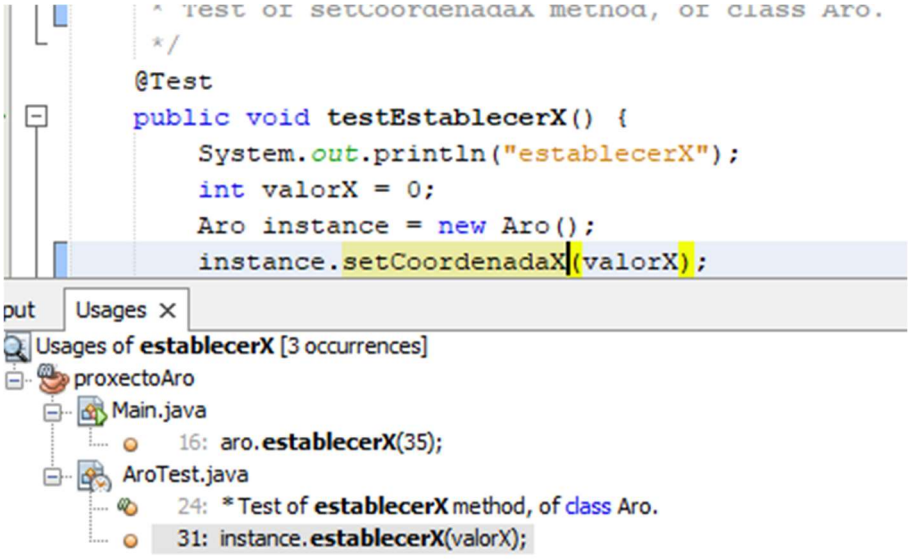
- **Elimina** de forma **segura** os métodos **obterX**, **obterY**, **obterRadio**, **establecerX**, **establecerY** e **establecer Radio** que agora son innecesarios facendo os cambios necesarios no código para que sexan **substituídos** polos correspondentes métodos tipo **get** e **set** creados.



Podemos ver na preview os elementos que imos eliminar, podendo cambiar por os novos metodos

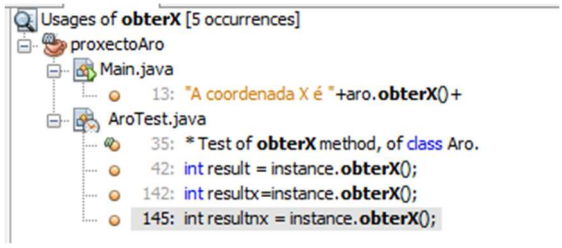


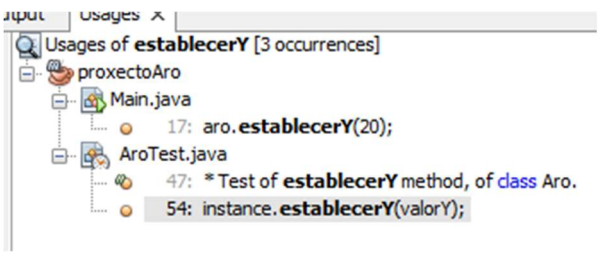
Modificanse

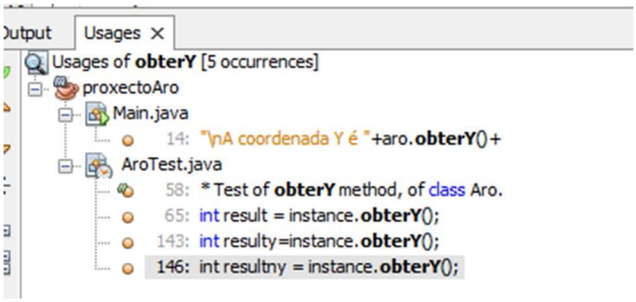


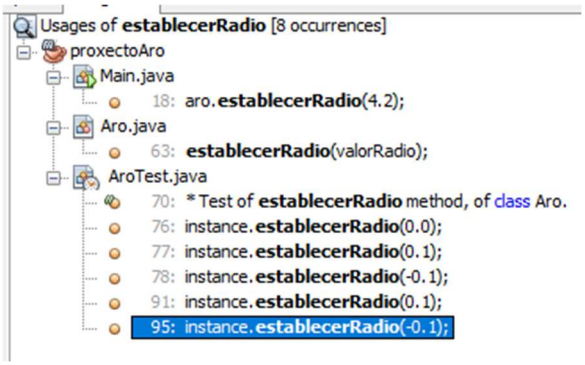
e clickase en Safely Delete, ahora xa solo queda o metodo

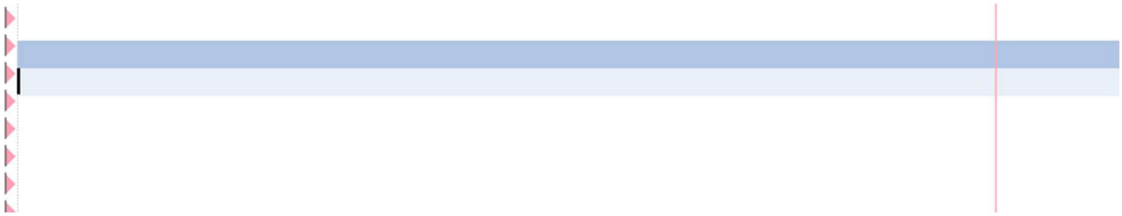
Realizamos o mesmo para o resto dos metodos e lanzamos o Test

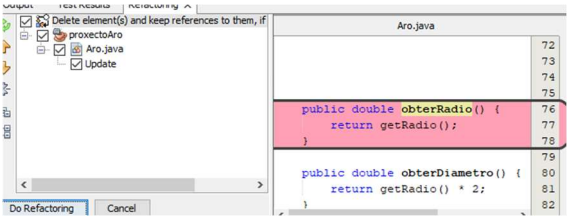





Output
Usages
Usages of obterY [5 occurrences]
proxectoAro
Main.java
14: "\nA coordenada Y é "+aro.obterY()+
AroTest.java
58: * Test of obterY method, of class Aro.
65: int result = instance.obterY();
143: int resulty=instance.obterY();
146: int resultny = instance.obterY();


Usages of establecerRadio [8 occurrences]
proxectoAro
Main.java
18: aro.establecerRadio(4.2);
Aro.java
63: establecerRadio(valorRadio);
AroTest.java
70: * Test of establecerRadio method, of class Aro.
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);

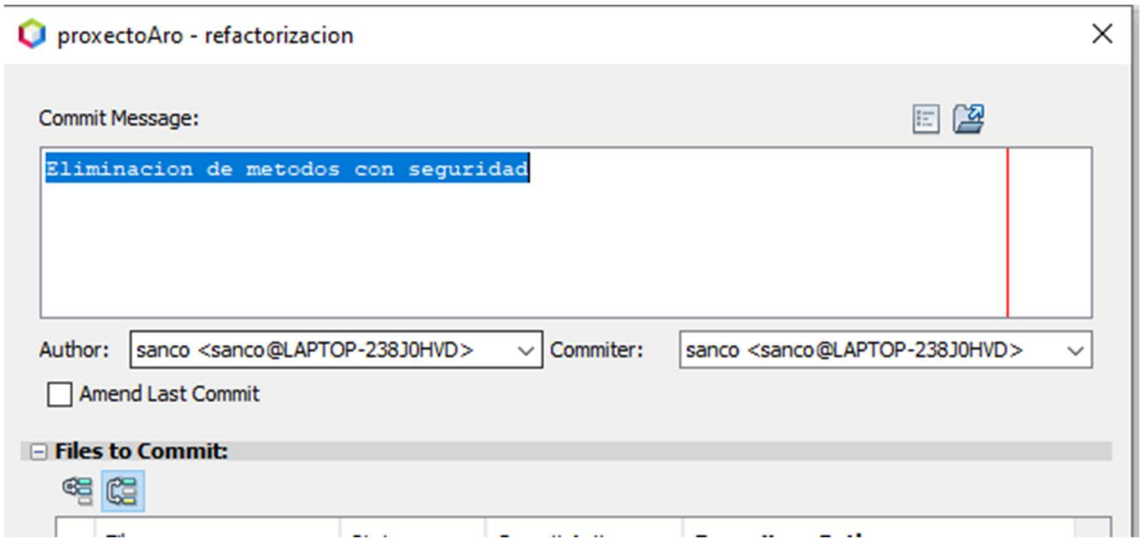



Delete element(s) and keep references to them, if
proxectoAro
Aro.java
Update
Do Refactoring
Cancel
Aro.java
public double obterRadio() {
return getRadio();
}
public double obterDiametro() {
return getRadio() * 2;

Test


proxectoAro - C:\Users\sanco\Desktop\DAM\Contornos de desenvolvemento\proxectoAro
Results:
Tests run: 10, Failures: 0, Errors: 0, Skipped: 0
BUILD SUCCESS
Total time: 2.709 s
Finished at: 2022-03-05T14:16:49+01:00

Commit

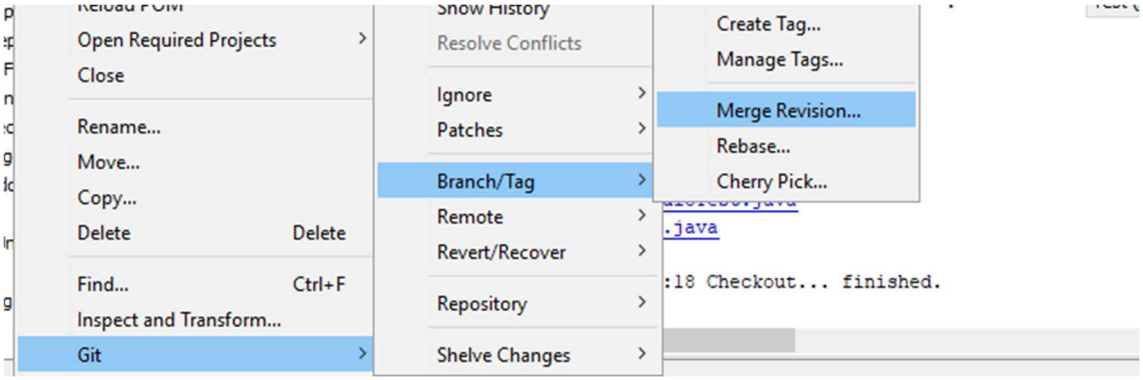


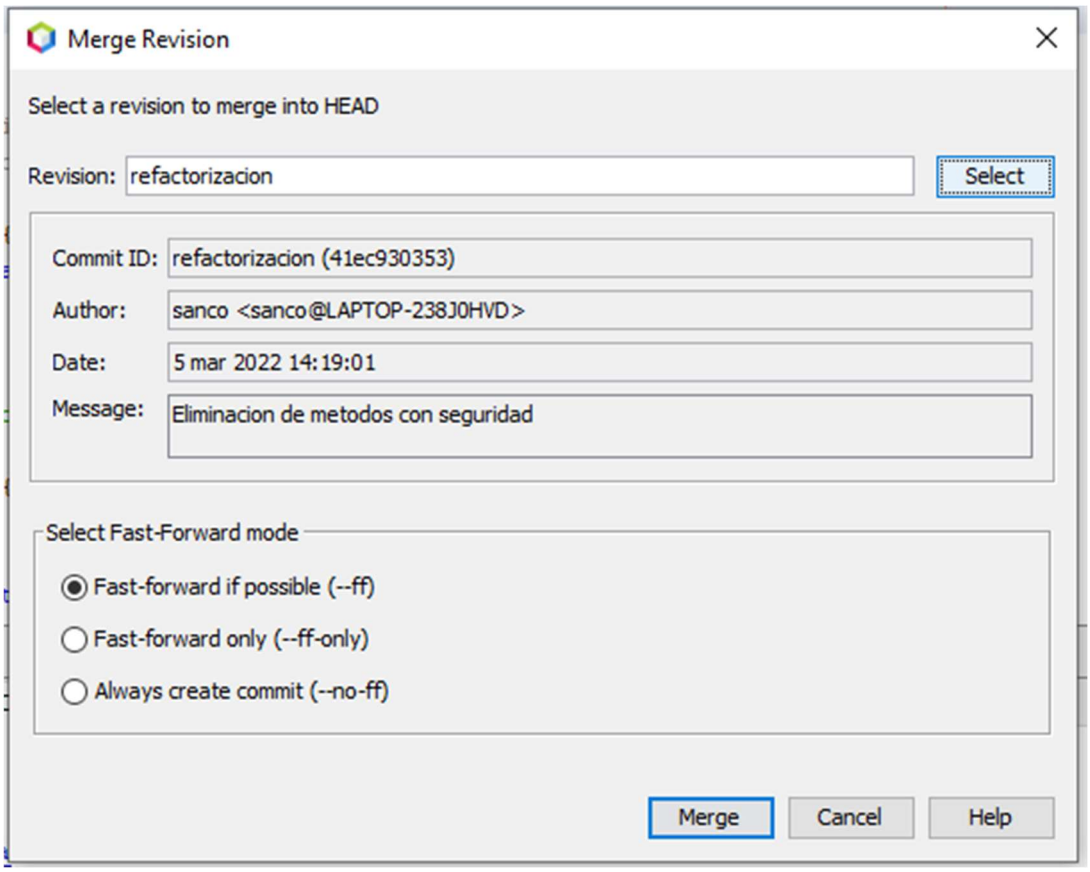
-Fusiona a rama **refactorizacion** coa rama **master** de tal maneira que a rama master conteña todos os cambios feitos na rama refactorizacion.

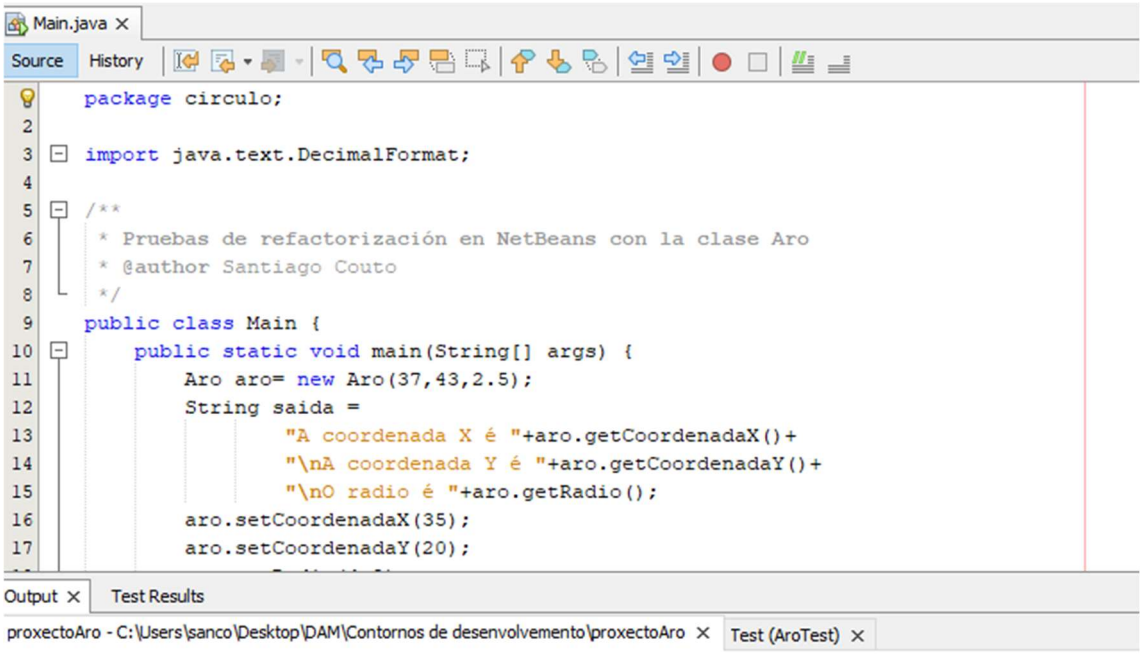
Poñemonos na rama master:

```
git show conflicts
git checkout master
.gitignore
src/main/java/circulo/Aro.java
src/test/java/circulo/AroTest.java
src/main/java/circulo/Circulo.java
src/test/java/circulo/CirculoTest.java
src/main/java/circulo/Main.java
pom.xml
==[IDE]== 5 mar 2022 14:25:18 Checkout... finished.
```

```java
package circulo;

/**
 * Probas de refactorización en NetBeans coa clase Circulo
 * @author Santiago Couto
 */
public class Circulo {
    public static final double MINIMO = 0.0;

    private int x;
    private int y;
    private double radio;

    public Circulo() {
    }
```

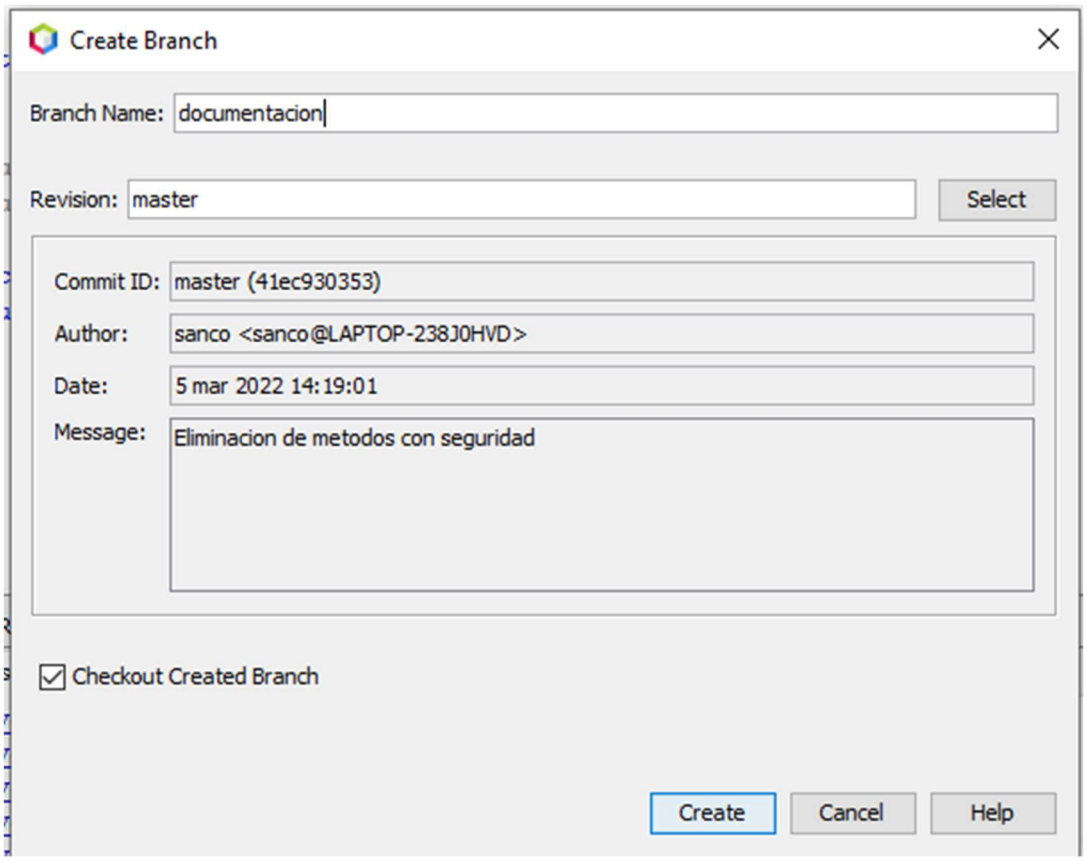

Open Required Projects
Close
Rename...
Move...
Copy...
Delete Delete
Find... Ctrl+F
Inspect and Transform...
Git
Show History
Resolve Conflicts
Ignore
Patches
Branch/Tag
Remote
Revert/Recover
Repository
Shelve Changes
Create Tag...
Manage Tags...
Merge Revision...
Rebase...
Cherry Pick...
.java
:18 Checkout... finished.


Merge Revision
Select a revision to merge into HEAD
Revision: refactorizacion
Select
Commit ID: refactorizacion (41ec930353)
Author: sanco <sanco@LAPTOP-238J0HVD>
Date: 5 mar 2022 14:19:01
Message: Eliminacion de metodos con seguridad
Select Fast-Forward mode
Fast-forward if possible (--ff)
Fast-forward only (--ff-only)
Always create commit (--no-ff)
Merge
Cancel
Help



Crea unha **rama documentacion** e móvete a ela.

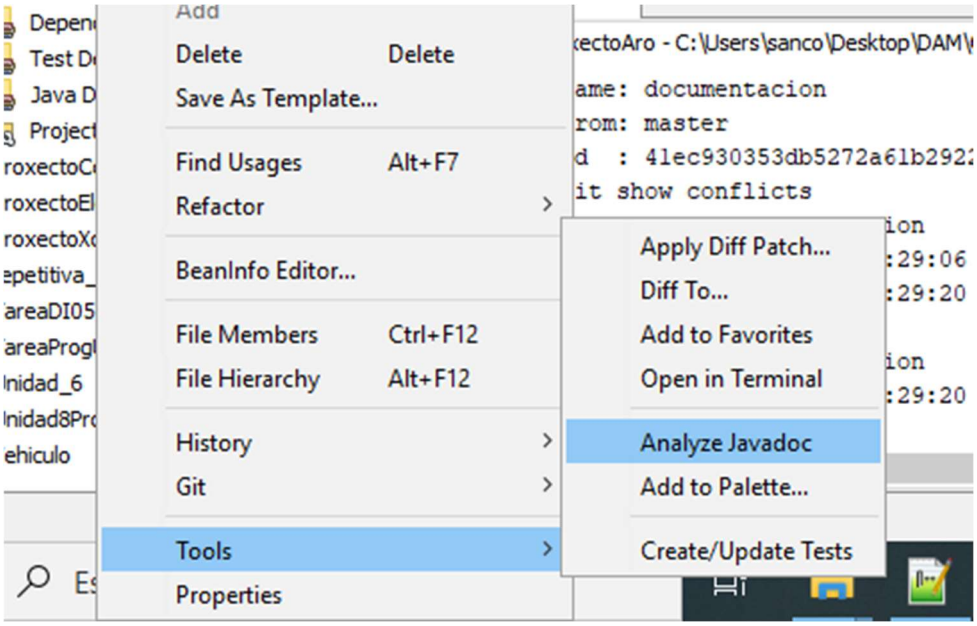
Creamos a rama

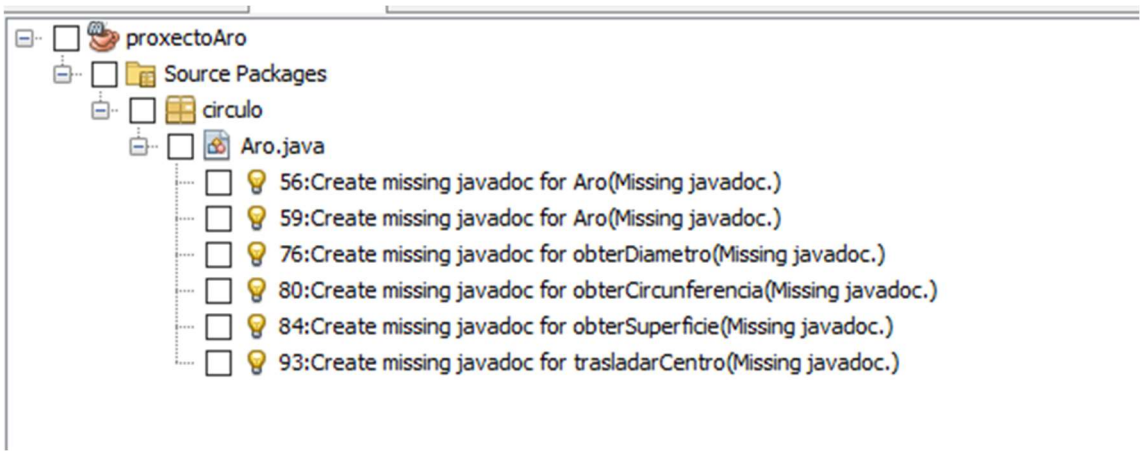


E poñemonos nela

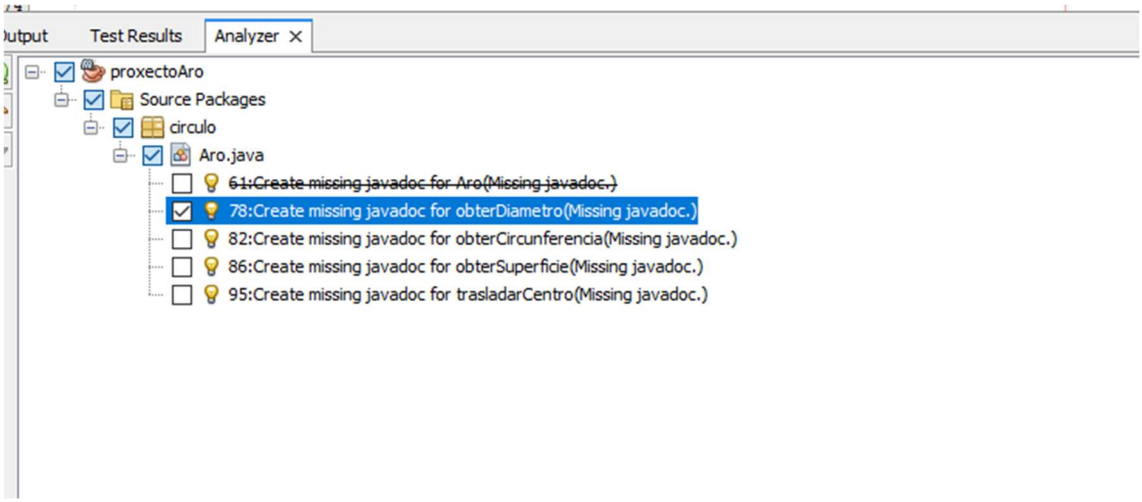
```
==[IDE]== 5 mar 2022 14:29:06 Create Branch finished.
==[IDE]== 5 mar 2022 14:29:20 Checkout...
git show conflicts
git checkout documentacion
==[IDE]== 5 mar 2022 14:29:20 Checkout... finished.
```

Usa o **analizador** de **javadoc** para verificar se está completamente documentado o código. **Documenta** o código do proxecto de tal maneira que o analizador non avise de que falta ningún comentario.

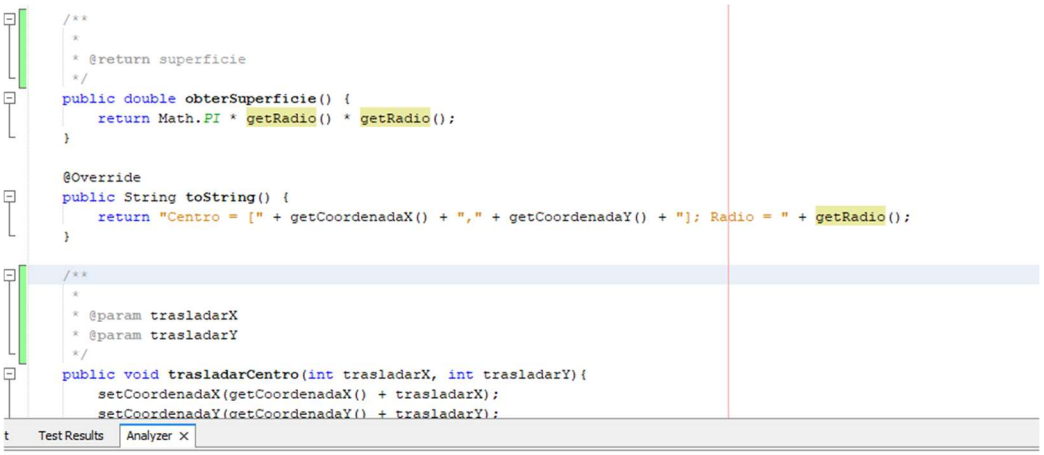




Imos reparando os problemas

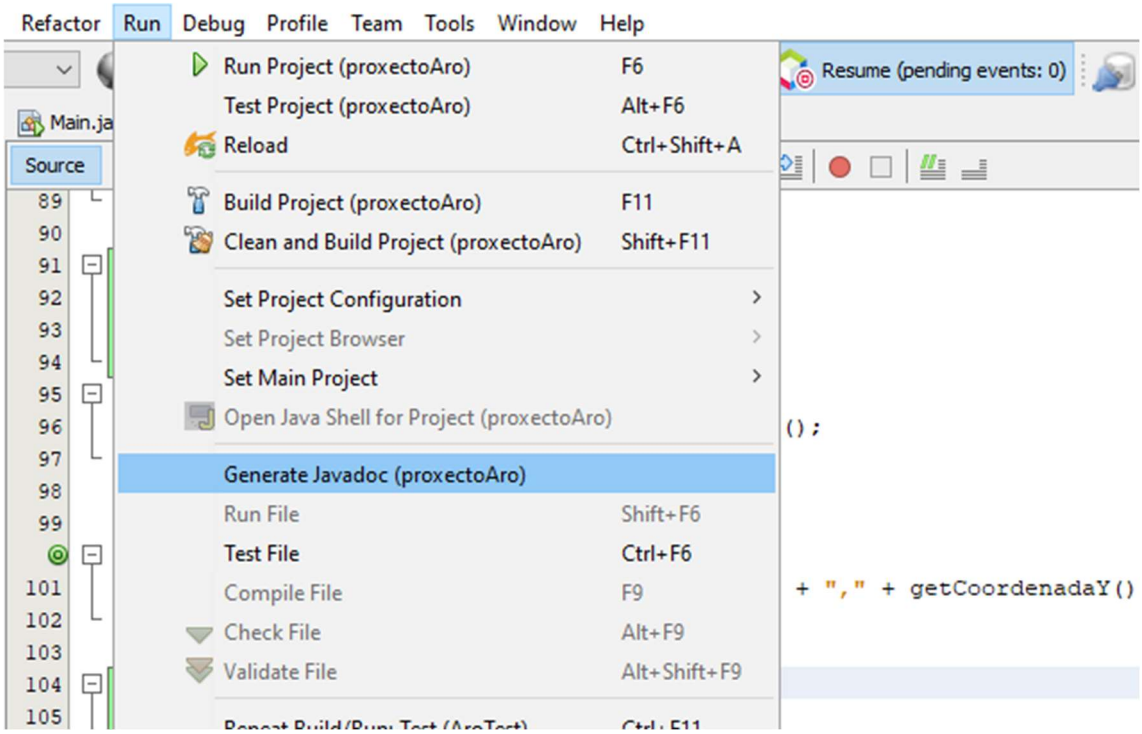


Ata que o analizador non atopa problemas



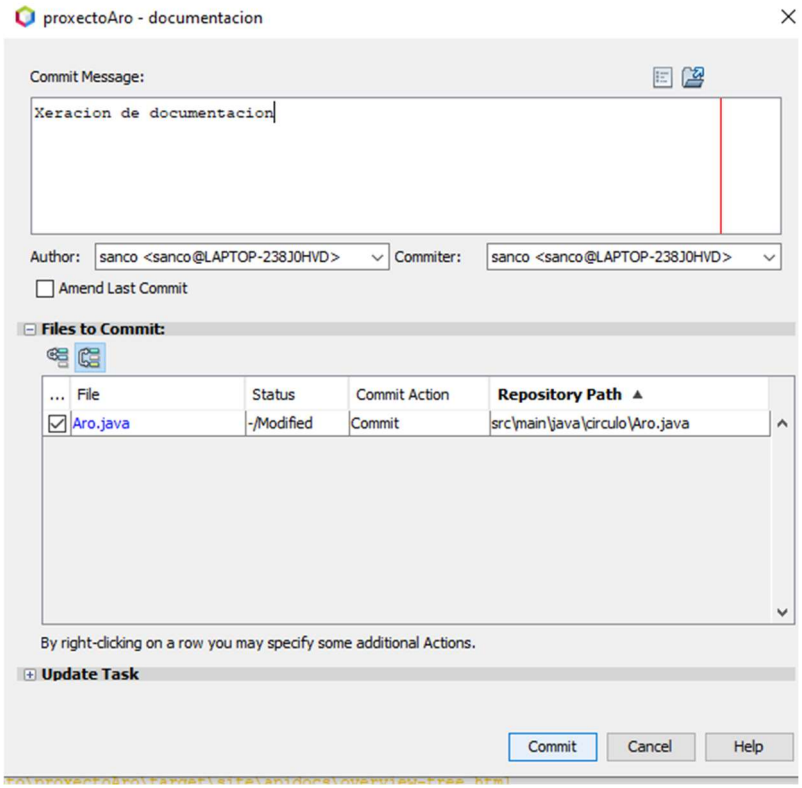
Cando remates de **documentar, xera** o **javadoc.** Tras xerar o **javadoc** e confirmar que a documentación é clara**, garda** todo o código documentado no **repositorio**.

Xeramos a documentacion



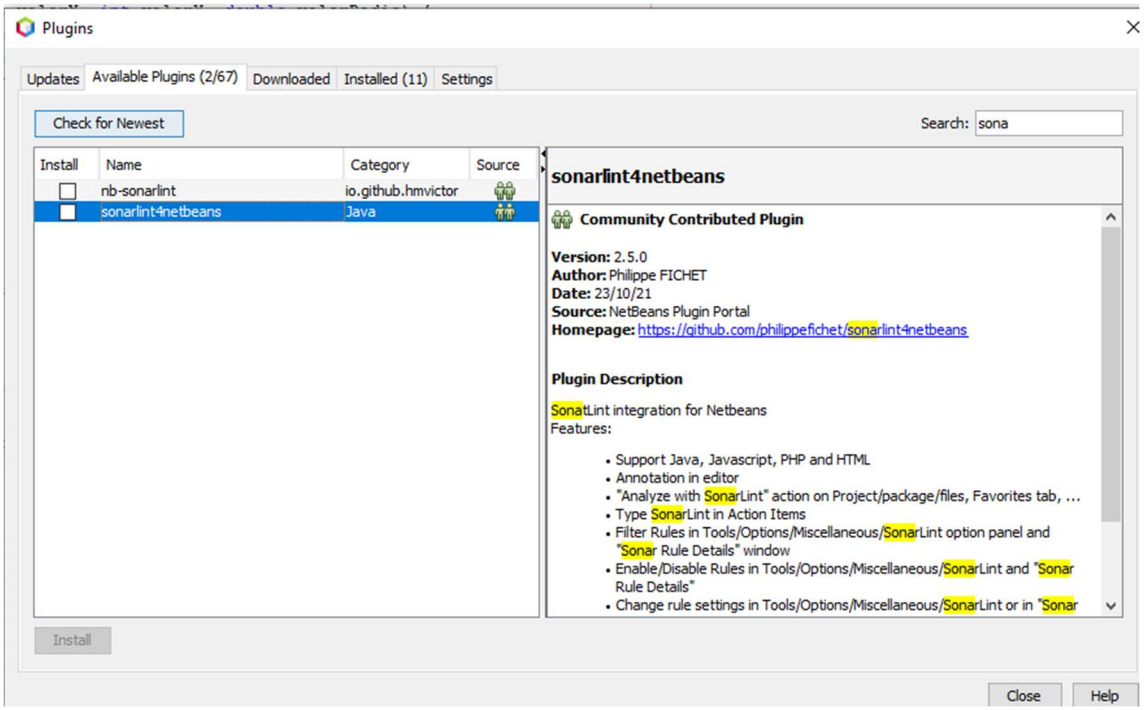

```
Generating C:\Users\sanco\Desktop\DAM\Contornos de desenvolvemento\proxectoAro\target\site\apidocs\circulo\class-use\Main.html...
Generating C:\Users\sanco\Desktop\DAM\Contornos de desenvolvemento\proxectoAro\target\site\apidocs\circulo\package-use.html...
Generating C:\Users\sanco\Desktop\DAM\Contornos de desenvolvemento\proxectoAro\target\site\apidocs\overview-tree.html...
Building index for all classes...
Generating C:\Users\sanco\Desktop\DAM\Contornos de desenvolvemento\proxectoAro\target\site\apidocs\allclasses-index.html...
Generating C:\Users\sanco\Desktop\DAM\Contornos de desenvolvemento\proxectoAro\target\site\apidocs\allpackages-index.html...
Generating C:\Users\sanco\Desktop\DAM\Contornos de desenvolvemento\proxectoAro\target\site\apidocs\index-all.html...
Generating C:\Users\sanco\Desktop\DAM\Contornos de desenvolvemento\proxectoAro\target\site\apidocs\index.html...
Generating C:\Users\sanco\Desktop\DAM\Contornos de desenvolvemento\proxectoAro\target\site\apidocs\help-doc.html...
9 warnings
View Generated javadoc at C:\Users\sanco\Desktop\DAM\Contornos de desenvolvemento\proxectoAro\target\site\apidocs\
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  27.916 s
Finished at: 2022-03-05T14:43:28+01:00
------------------------------------------------------------------------
```

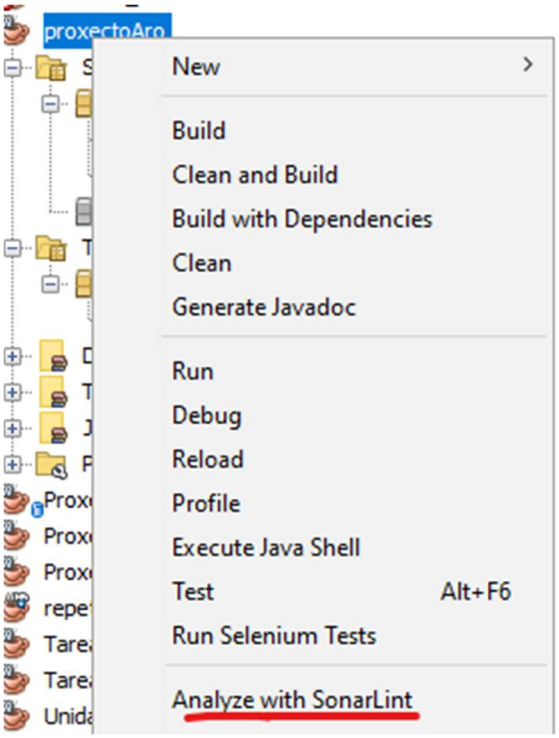
Commit

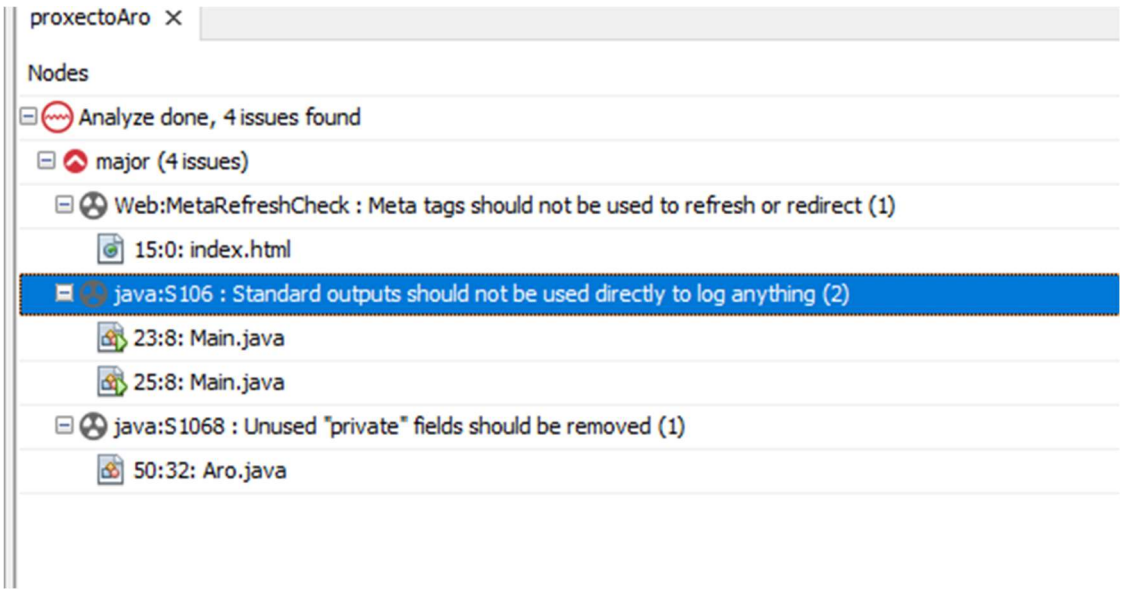


Instala o **plugin** de **NetBeans SonarLint integration for Netbeans**. **Revisa** se algunha das **suxestións** que che fai **SonarLint** é aplicable e, se é así, aplícaa. Unha vez remates de revisar o código, **garda** os cambios no **repositorio**.

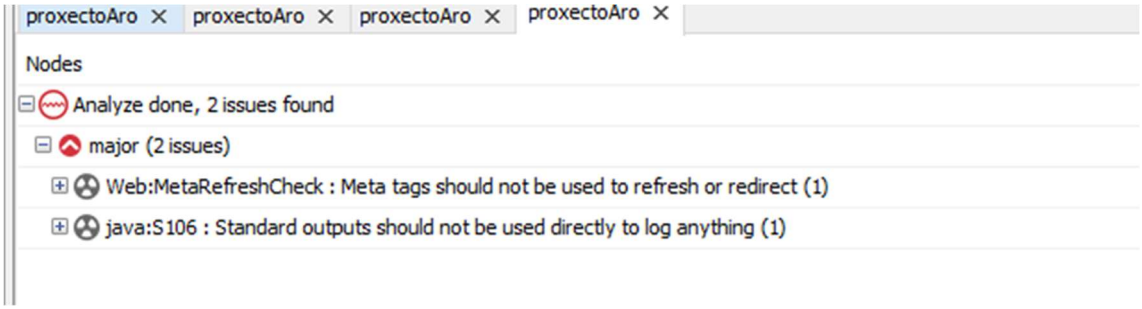
Instalamos





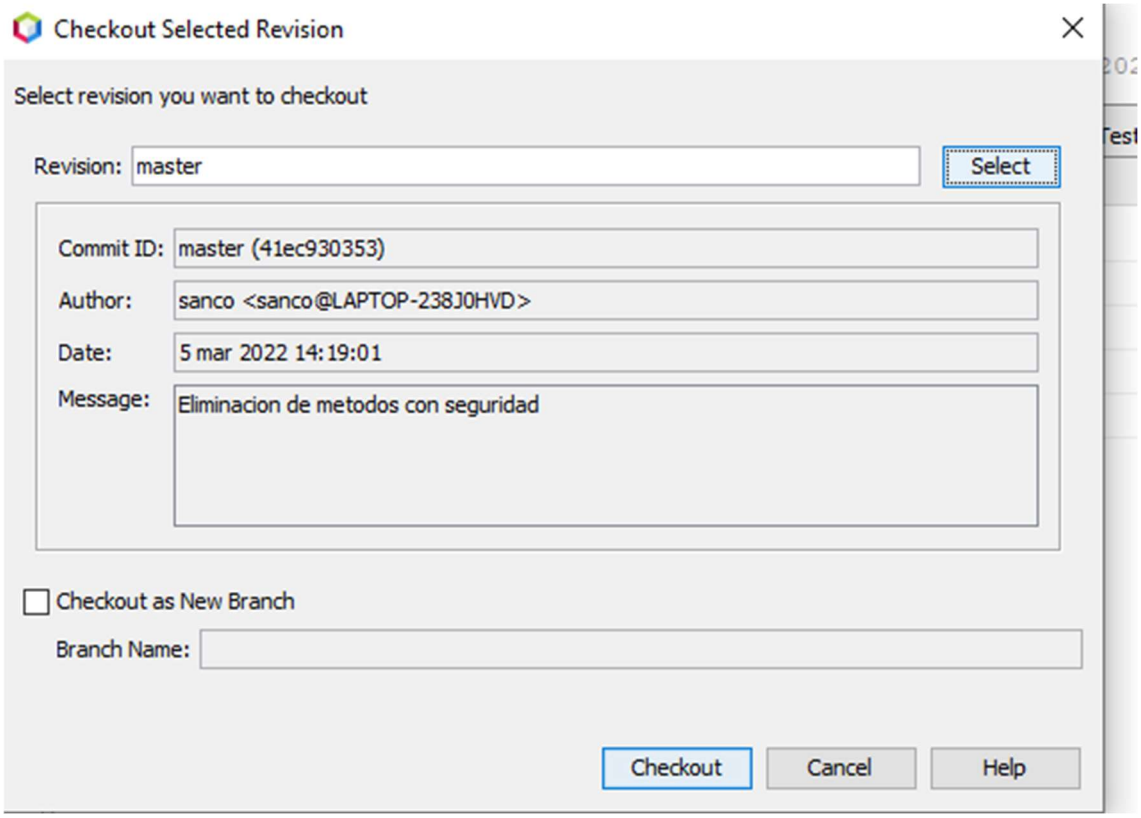


Eliminanse as partes que si son eliminables e commitease

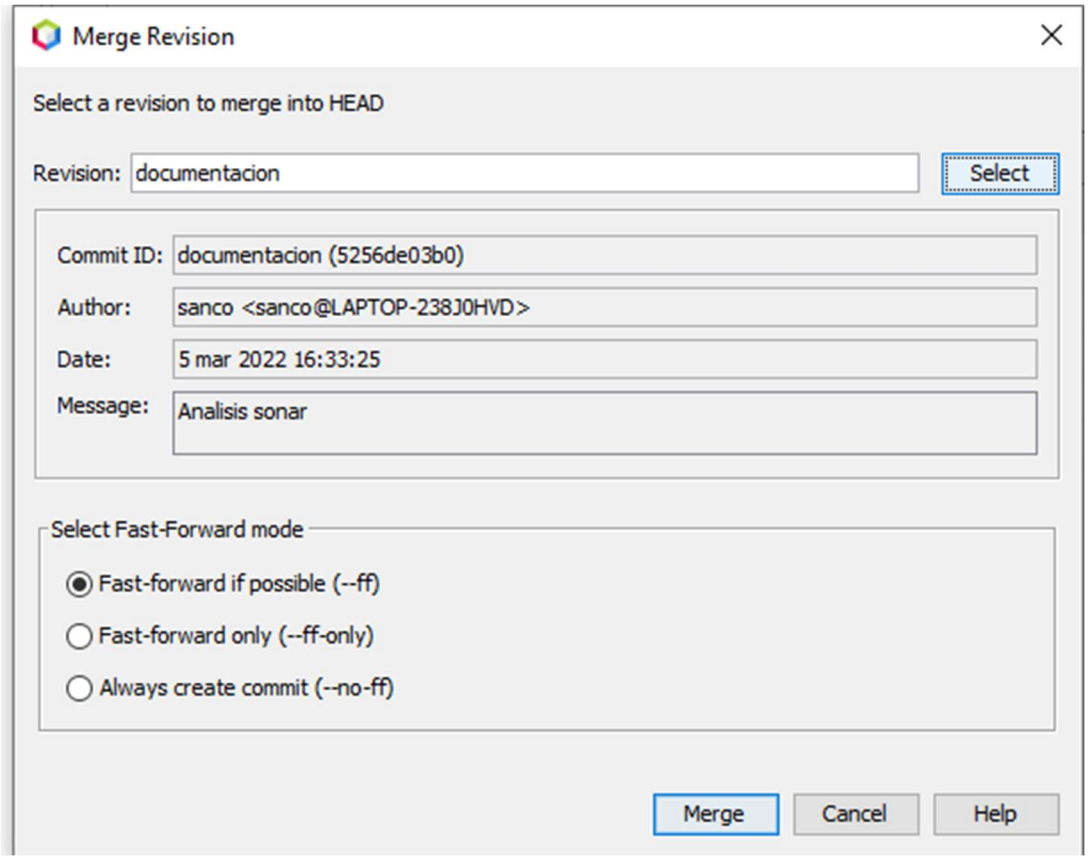


Fusiona a rama **master** coa rama **documentacion** de tal maneira que todos os cambios feitos para documentar e mellorar o código pasen á rama **master**.

Colocamonos na rama master



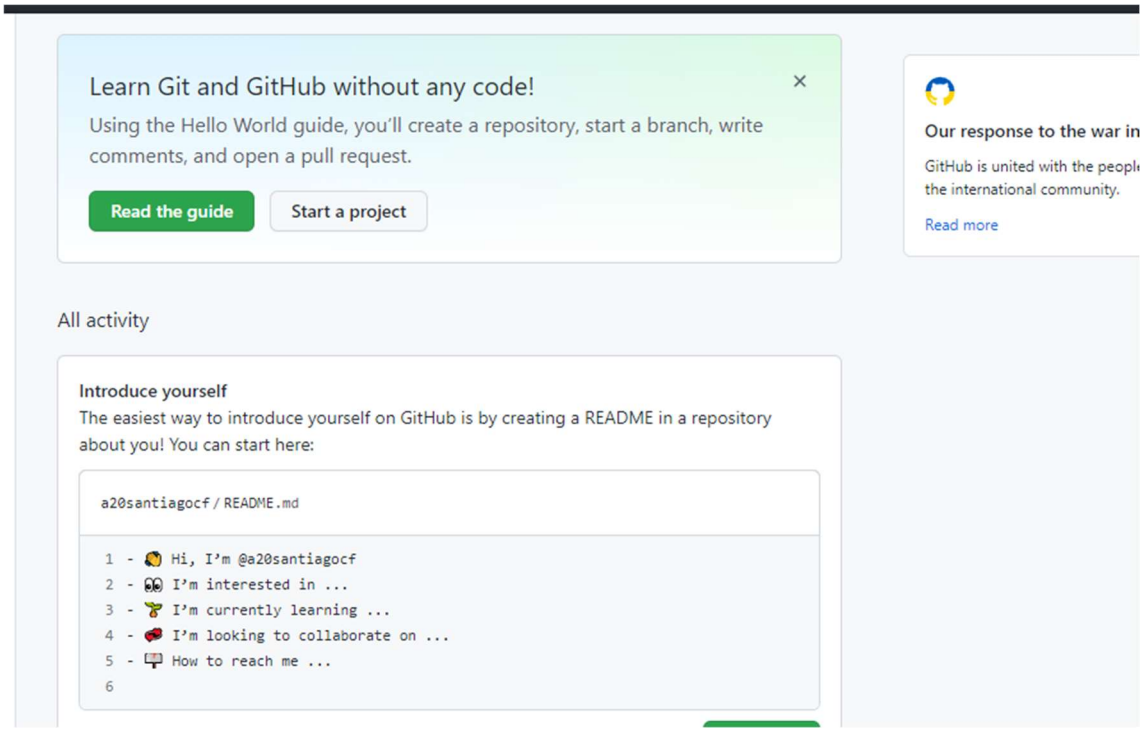
E realizase o merge de documentacion

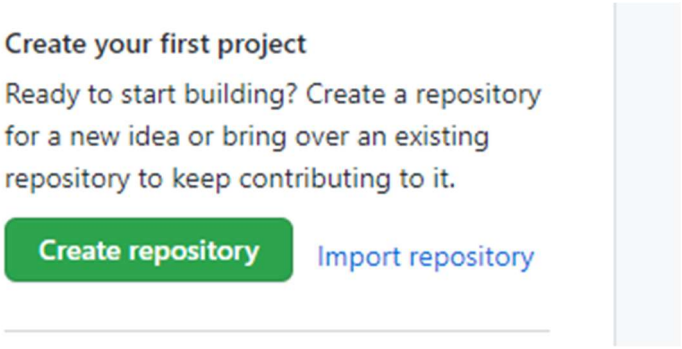


Utiliza a **conta de correo** do **IES San Clemente** para darte de alta en **GitHub** se non o tes feito con anterioridade.

```
Create a password
✓ •••••••••

Enter a username
✓ a20santiagocf

Would you like to receive product updates and announcements via
email?
Type "y" for yes or "n" for no
✓ n

Verify your account
```

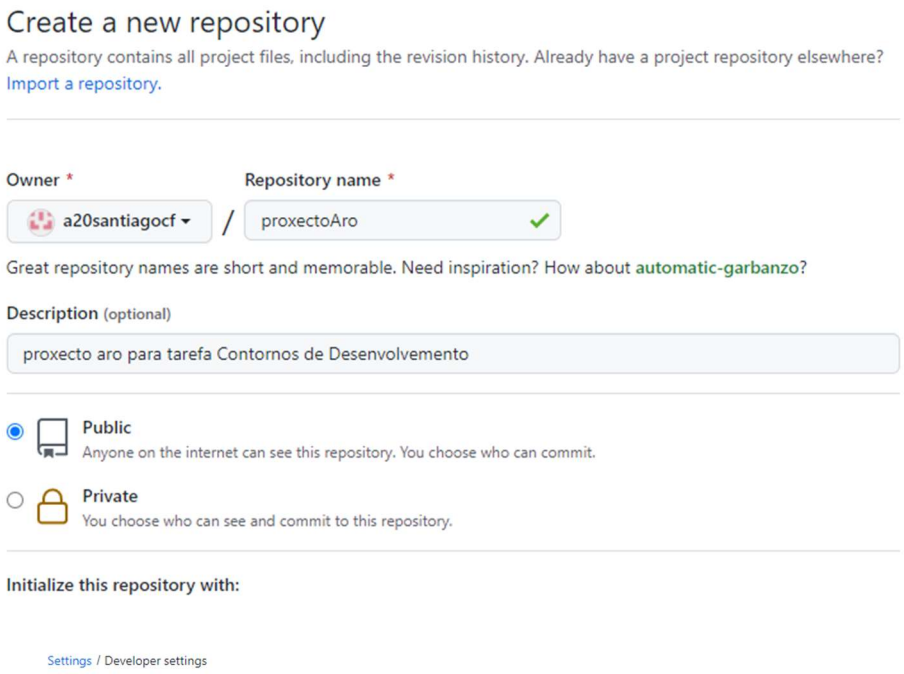
Crease a conta

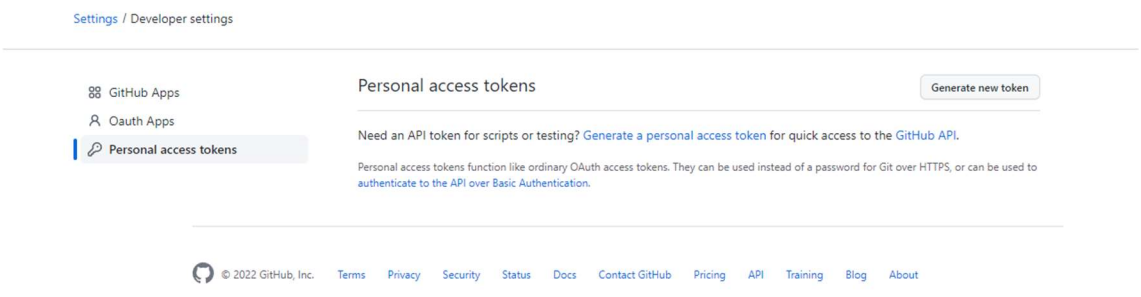


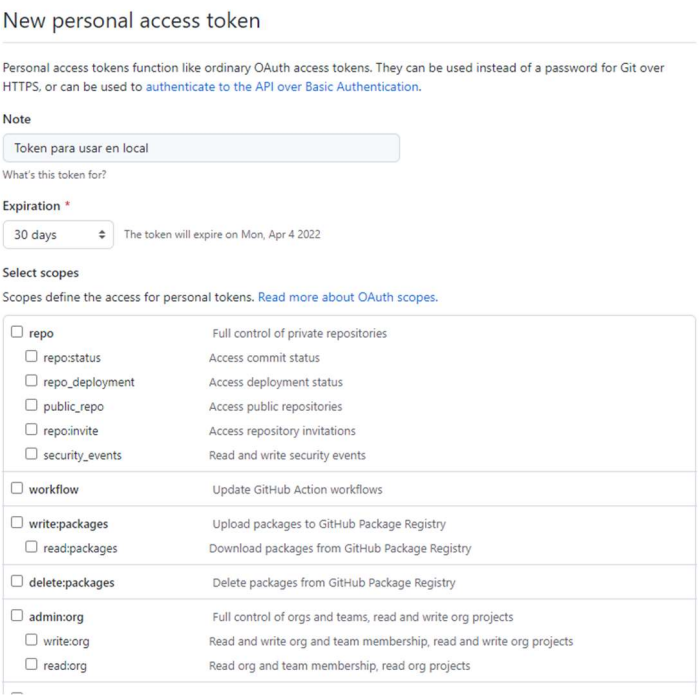


Crea un repositorio de nome **proxectoAro** en **GitHub**. **Sincroniza** o **repositorio local** co repositorio **GitHub** (usa push). Sincroniza unicamente a rama master.

Creamos o reposositorio

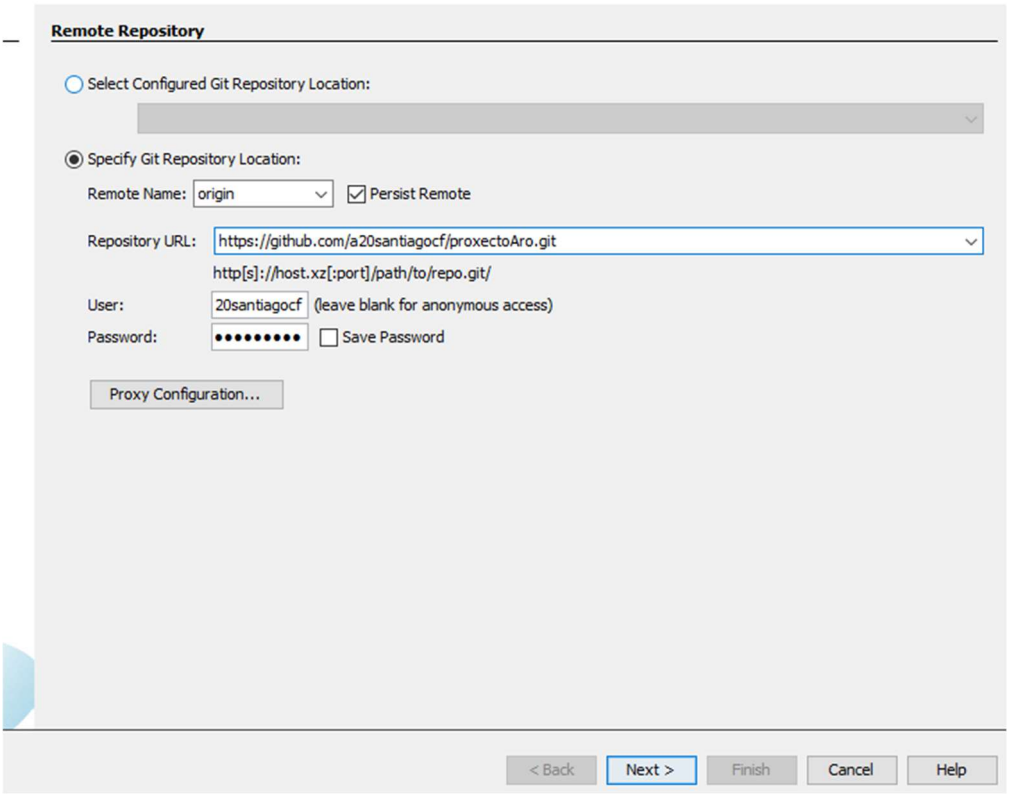




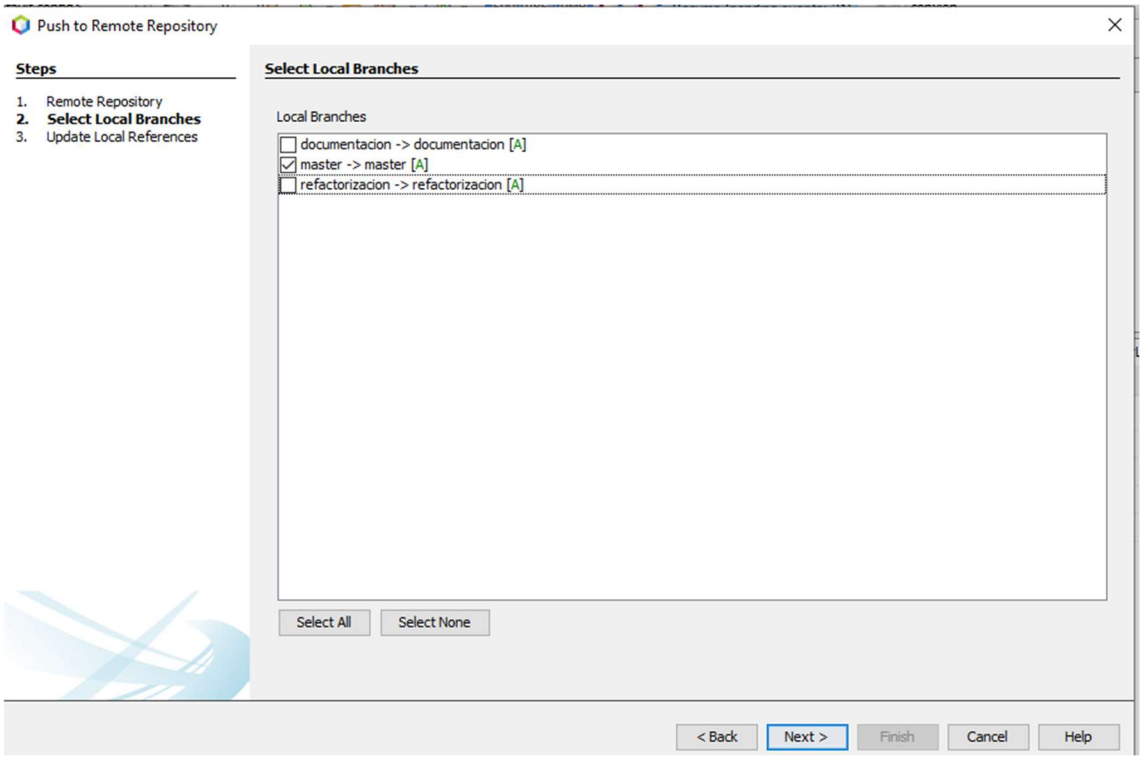


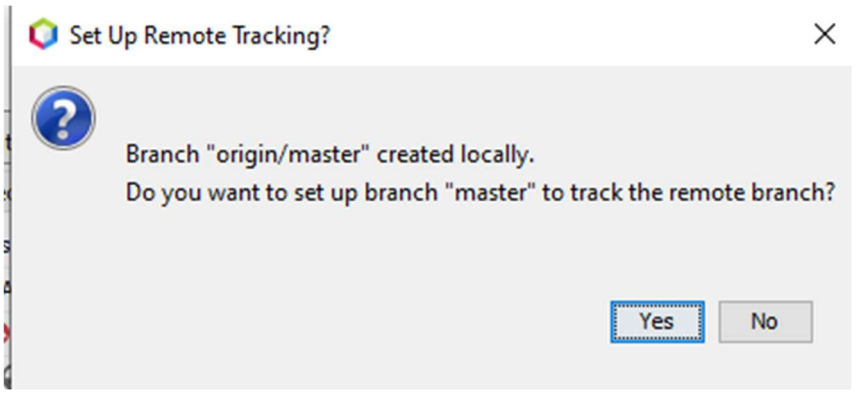
Ahora accedemos a Git / Remote/ push

E cubrimos os datos

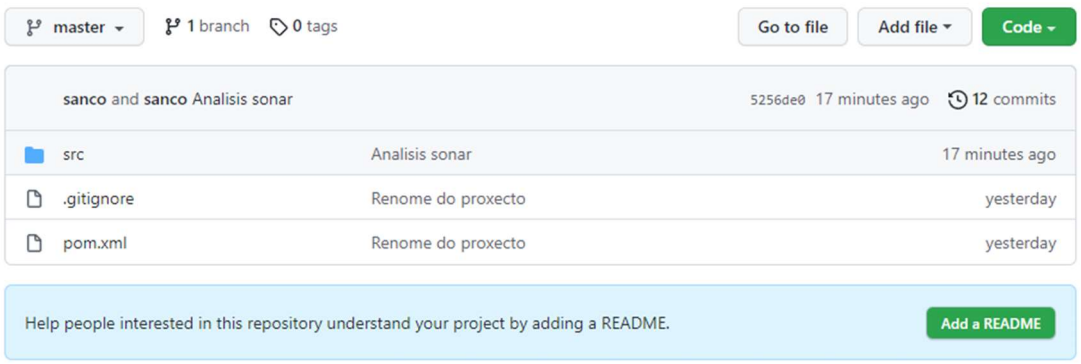


Añadimos todas a rama master





E quedaria añadido



A entrega será a **URL** do repositorio **GitHub** (exemplo: https://github.com/A21noemivr/proxectoAro).

https://github.com/a20santiagocf/proxectoAro.git