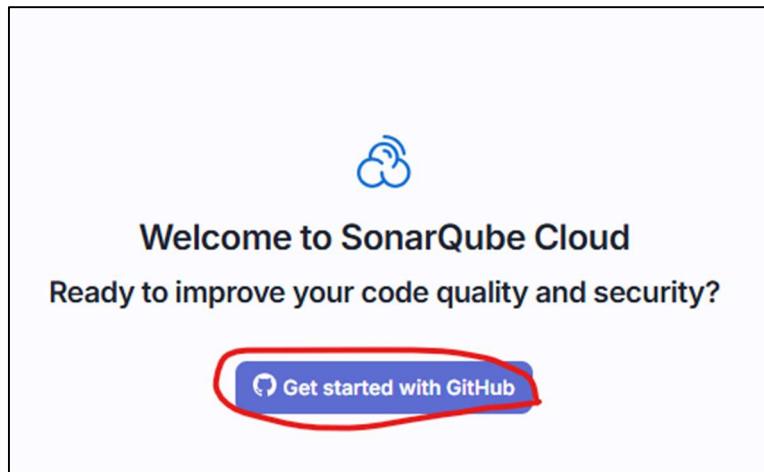


INSTALACIÓN Y CONFIGURACIÓN DE SONARQUBE

INSTALACIÓN Y CONFIGURACIÓN CON SONARCLOUD

Acceder a la url <https://sonarcloud.io/> y realizar los siguientes pasos:



Install & Authorize on your personal account patriciasfo 

for these repositories:

All repositories
This applies to all current and future repositories owned by the resource owner.
Also includes public repositories (read-only).

Only select repositories
Select at least one repository. Also includes public repositories (read-only).
[Select repositories ▾](#)

Selected 1 repository.

 patriciasfo/demo_springboot 

with these permissions:

Read access to code and metadata
 Read and write access to checks, commit statuses, pull requests, and security events

User permissions
Installing and authorizing SonarQubeCloud immediately grants these permissions on your account: patriciasfo.

Read access to email addresses

[Install & Authorize](#) [Cancel](#)

Confirm access

 Signed in as @patriciasfo

Password

[Forgot password?](#)

Confirm

Tip: You are entering [sudo mode](#). After you've performed a sudo-protected action, you'll only be asked to re-authenticate again after a few hours of inactivity.

1 Import organization details

Import  patriciasfo into a SonarQube Cloud organization X

Name *

Up to 255 characters

Key * (i)

Use only lowercase letters, numbers, or hyphens. Must start and end with a letter or number. Up to 255 characters.

2 Choose a plan

Free

For individual developers, students and open-source projects

\$0

Selected

What's included

Create organization

SonarQube cloud My Projects My Issues Explore

patriciafasfo PUBLIC

Projects Quality profiles Rules Quality Gates Members Billing and upgrade Administration ▾



No projects here yet

But your organization is all set, you can start analyzing code here!

Analyze a new project

Set up project for Clean as You Code

The new code definition sets which part of your code will be considered new code.

This helps you focus attention on the most recent changes to your project, enabling you to follow the Clean as You Code methodology.

Learn more: [New Code Definition ↗](#)

Set a new code definition for your organisation to use it by default for all new projects

- ⓘ This can help you use the Clean as You Code methodology consistently across projects.
patriciafaso - Administration - New Code

The new code for this project will be based on:

Previous version

Any code that has changed since the previous version is considered new code.

Recommended for projects following regular versions or releases.

Number of days

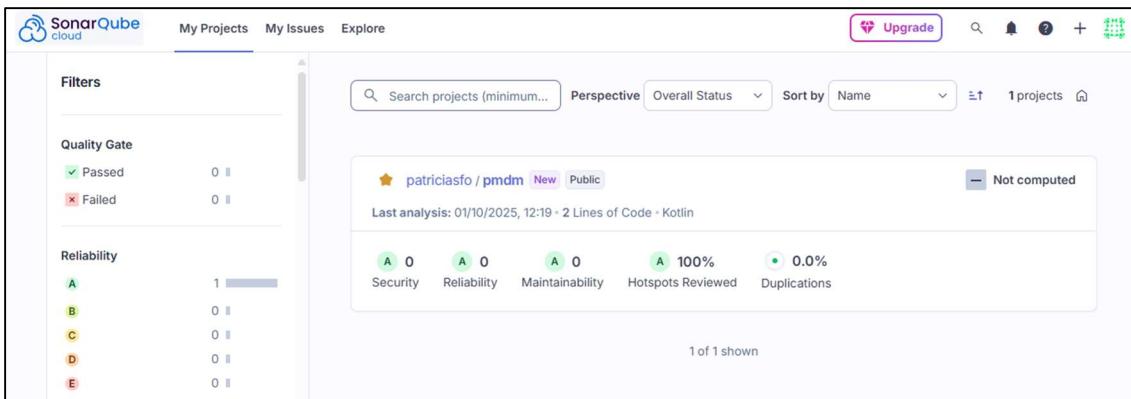
Any code that has changed in the last x days is considered new code. If no action is taken on a new issue after x days, this issue

Recommended for projects following continuous delivery.

ⓘ You can change this at any time in the project administration

[Back](#)

Create project



Si necesitamos añadir un proyecto nuevo para analizar:

sonarcloud.io/projects/create

SonarQube My Projects My Issues Explore Upgrade

Analyze projects

Select repositories from one of your GitHub organization.

Organization: patriciasfo

Import another organization: Select all on this page Search for repositories

biblioteca_devops

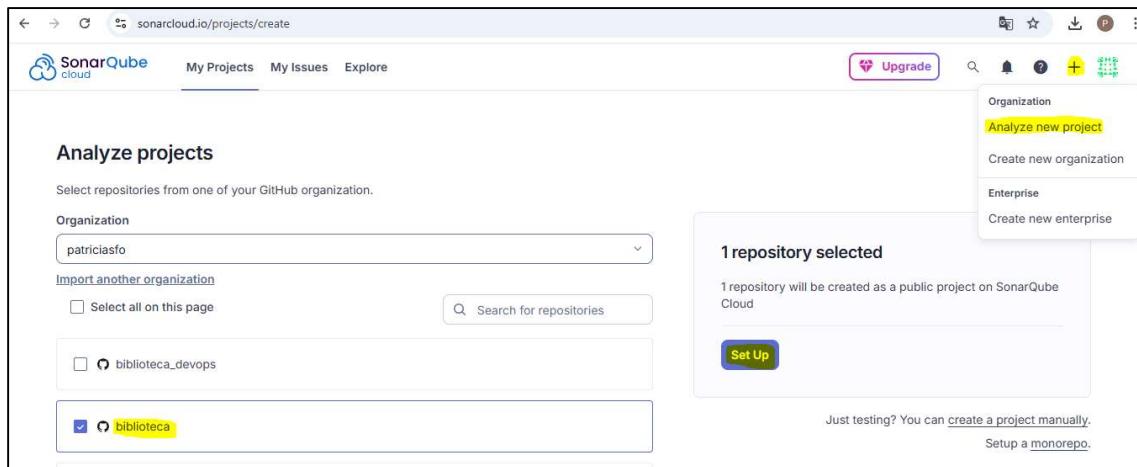
biblioteca

1 repository selected

1 repository will be created as a public project on SonarQube Cloud

Set Up

Just testing? You can [create a project manually](#).
[Setup a monorepo](#).



sonarcloud.io/projects/create

SonarQube My Projects My Issues Explore

Set up new code for project

The new code definition sets the criteria for what's considered new code, allowing you to focus on the most recent changes in your project.

This setting allows project administrators to customize the new code definition for their project. [Learn more in documentation](#)

1 Your organization's new code definition is not set

Set a new code definition for your organisation to use it by default for all new projects
[patriciasfo - Administration - New Code](#)

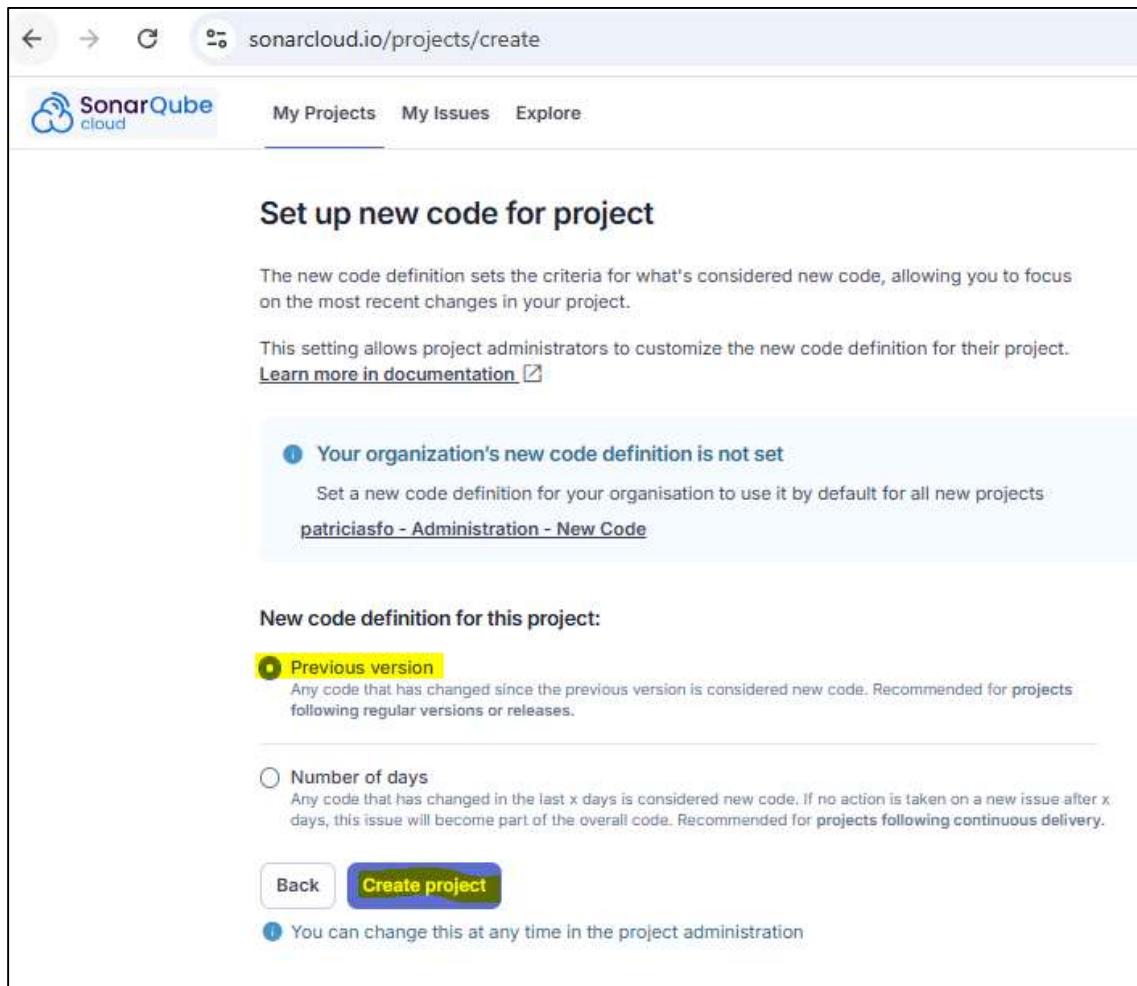
New code definition for this project:

Previous version
Any code that has changed since the previous version is considered new code. Recommended for projects following regular versions or releases.

Number of days
Any code that has changed in the last x days is considered new code. If no action is taken on a new issue after x days, this issue will become part of the overall code. Recommended for projects following continuous delivery.

Back **Create project**

1 You can change this at any time in the project administration



sonarcloud.io/project/configuration/AutoScan?id=patriciastro_biblioteca

SonarQube cloud My Projects My Issues Explore

biblioteca Public ★

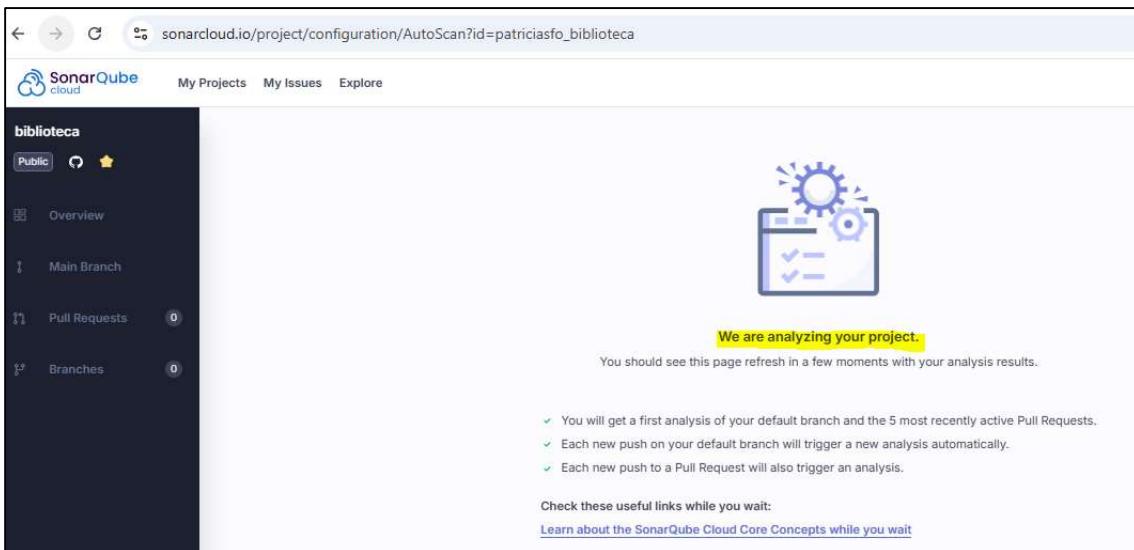
Overview Main Branch Pull Requests 0 Branches 0

We are analyzing your project.

You should see this page refresh in a few moments with your analysis results.

- ✓ You will get a first analysis of your default branch and the 5 most recently active Pull Requests.
- ✓ Each new push on your default branch will trigger a new analysis automatically.
- ✓ Each new push to a Pull Request will also trigger an analysis.

Check these useful links while you wait:
[Learn about the SonarQube Cloud Core Concepts while you wait](#)



sonarcloud.io/summary/overall?id=patriciastro_biblioteca&branch=master

SonarQube My Projects My Issues Explore Upgrade

biblioteca patriciastro > biblioteca > master

Summary Issues Security Hotspots Measures Code Activity

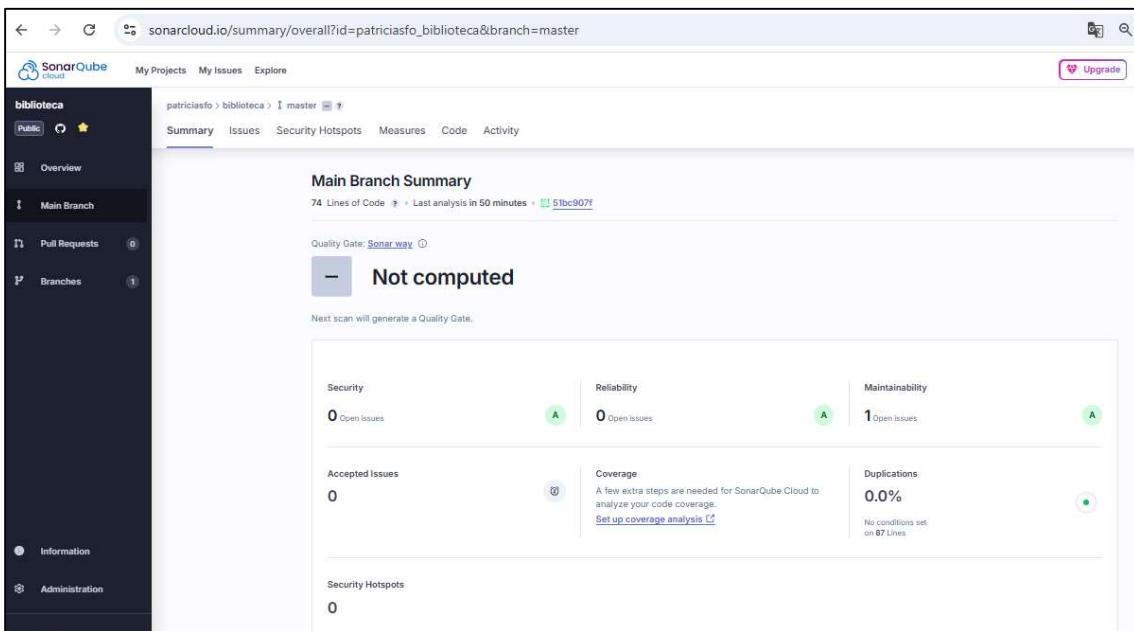
Main Branch Summary
74 Lines of Code Last analysis in 50 minutes S1bc907f

Quality Gate: Sonar way

Not computed

Next scan will generate a Quality Gate.

Security	Reliability	Maintainability
0 Open issues A	0 Open issues A	1 Open issues A
Accepted Issues	Coverage	Duplications
0	A few extra steps are needed for SonarQube Cloud to analyze your code coverage. Set up coverage analysis	0.0% No conditions set on 87 Lines
Security Hotspots		
0		



sonarcloud.io/organizations/patriciastro/projects

SonarQube My Projects My Issues Explore Upgrade

patriciastro

Free plan Key: patriciastro

Projects Quality profiles Rules Quality Gates Members Billing and upgrade Administration

Filters

Search projects (minimum ...)

Perspective Overall Status Sort by Name

Quality Gate

Passed	Failed
0	0

Reliability

A	B	C	D	E
2	0	0	0	0

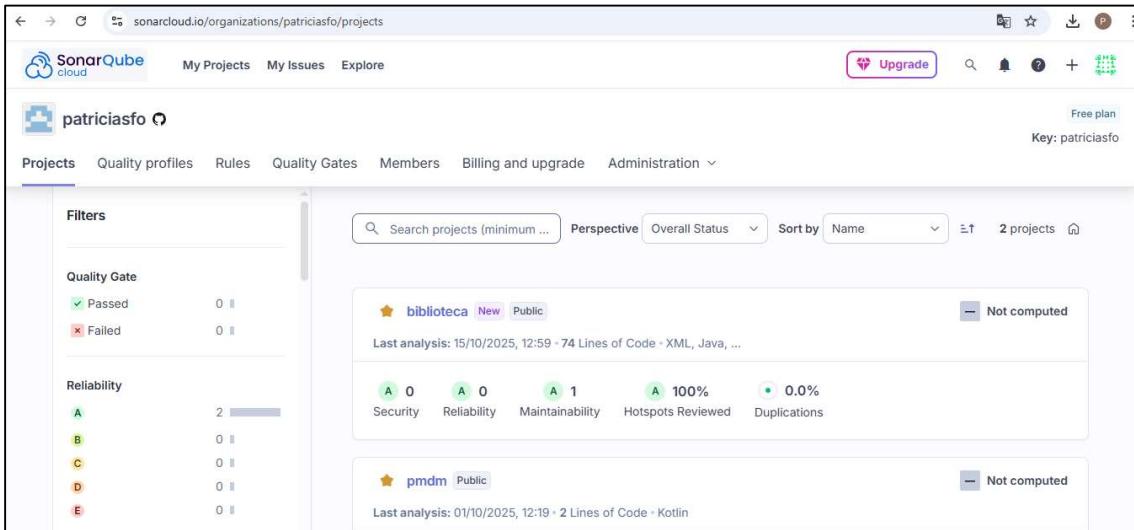
biblioteca New Public Not computed

Last analysis: 15/10/2025, 12:59 - 74 Lines of Code - XML, Java, ...

A 0 A 0 A 1 A 100% 0.0%
Security Reliability Maintainability Hotspots Reviewed Duplications

pmdm Public Not computed

Last analysis: 01/10/2025, 12:19 - 2 Lines of Code - Kotlin



Si se hace cualquier cambio en el proyecto, tras hacer PULL, sonarqube analizará el código de nuevo. Igual hay que esperar un poco o, si no se quiere esperar, se puede forzar su actualización.

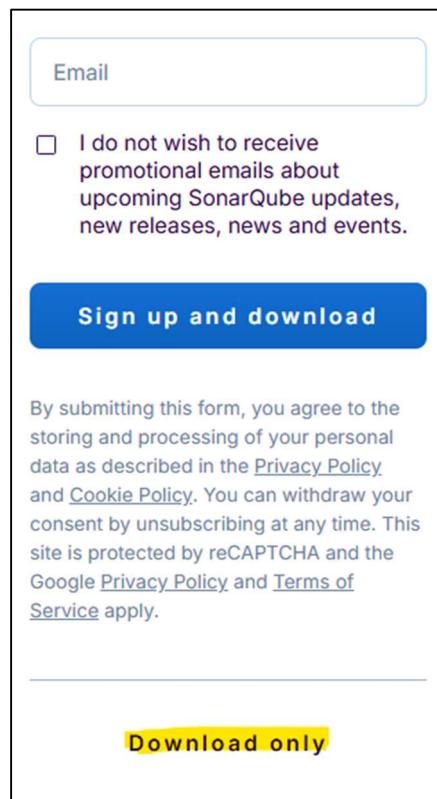
The screenshot displays the SonarQube web interface. At the top, there are two project cards: 'biblioteca' (Passed) and 'pmmdm' (Not computed). Below these, a summary section shows metrics for the 'biblioteca' project: Security (A 0), Reliability (A 0), Maintainability (A 1), Hotspots Reviewed (100%), and Duplications (0.0%). The 'Last analysis' date is 16/10/2025, 10:05. The 'pmmdm' project has a 'Last analysis' date of 01/10/2025, 12:19. A large central box titled 'Latest Activity' shows the first analysis for the 'Main Branch' on 15 October at 13:03, with an initial commit hash 51bc907f. It lists 1 issue, 0.0% coverage, and 0.0% duplications across 74 lines of code. A 'Show Older Activity' button is visible at the bottom of this section.

INSTALACIÓN CON SONARQUBE ON PREMISE

1. Descargar e instalar SonarQube Community edition (<https://youtu.be/7UIWPIWrkpY>)
Acceder a la url <https://www.sonarsource.com/> y realizar los siguientes pasos:

The screenshot shows the SonarQube website homepage. The navigation bar includes 'Products', 'Why Sonar', 'Pricing', 'Developers', 'Resources', and 'Community'. The 'Download' link is highlighted. Below the navigation, a banner reads 'Visit the SonarQube Update Hub: You'll find resources for a seamless 2025.1 LTS'. Three main download options are presented in cards: 'Community Build' (Release 25.10.0.11431), 'Developer edition' (2025 Release 5 | September), and 'Enterprise edition' (2025 Release 5 | September). Each card includes a 'Download for free' button.

No es necesario registrarse, así que pulsar directamente ‘Download only’.



Se descarga un .zip que descomprimimos, por ejemplo, en C:\, y lo renombramos a sonarqube:

Este equipo > Windows (C:) > sonarqube >				
Nuevo Ordenar Ver ...				
	Nombre	Fecha de modificación	Tipo	Tamaño
Galería	bin	01/09/2025 13:06	Carpeta de archivos	
OneDrive	conf	01/09/2025 13:06	Carpeta de archivos	
Escritorio	data	01/10/2025 12:31	Carpeta de archivos	
Descargas	elasticsearch	01/09/2025 13:13	Carpeta de archivos	
Documentos	extensions	01/10/2025 12:31	Carpeta de archivos	
Imágenes	jres	01/09/2025 13:13	Carpeta de archivos	
Música	lib	01/09/2025 13:13	Carpeta de archivos	
Vídeos	logs	02/10/2025 11:17	Carpeta de archivos	
Conexión a BBD	security	01/09/2025 13:06	Carpeta de archivos	
AndroidStudioP	temp	02/10/2025 12:10	Carpeta de archivos	
Windows (C:)	web	01/09/2025 13:13	Carpeta de archivos	
	COPYING	01/09/2025 13:06	Archivo	8 KB
	dependency-license.json	01/09/2025 13:12	Archivo JSON	85 KB

Abrir cmd como administrador, situarse en C:\sonarqube\bin\windows-x86-64 (o el sistema operativo que corresponda) y ejecutar StartSonar.bat:

```
C:\ Administrador: Símbolo del sistema
Microsoft Windows [Versión 10.0.22631.4460]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Windows\System32>cd c:\sonarqube\bin\windows-x86-64

c:\sonarqube\bin\windows-x86-64>StartSonar.bat
```

```
c:\sonarqube\bin\windows-x86-64>StartSonar.bat
Starting SonarQube...
2025.10.16 10:50:28 INFO app[][o.s.a.AppFileSystem] Cleaning or creating temp directory C:\sonarqube\temp
2025.10.16 10:50:28 INFO app[][o.s.a.es.EsSettings] Elasticsearch listening on [HTTP: 127.0.0.1:9001, TCP: 127.0.0.1:{}]
[...]
2025.10.16 10:50:28 INFO app[][o.s.a.ProcessLauncherImpl] Launch process[ELASTICSEARCH] from [C:\sonarqube\elasticsearch]
  : C:\Program Files\Java\jdk-21\bin\java -Xms4m -Xmx64m -XX:+UseSerialGC -Dcli.name=server -Dcli.script=./bin/elasticsearch -Dcli.libs=lib/tools/server-cli -Des.path.home=C:\sonarqube\elasticsearch -Des.path.conf=C:\sonarqube\temp\conf\es -Des.distribution.type=tar -cp C:\sonarqube\elasticsearch\lib\*;C:\sonarqube\elasticsearch\lib\cli-launcher\* org.elasticsearch.launcher.CliToolLauncher
2025.10.16 10:50:28 INFO app[][o.s.a.SchedulerImpl] Waiting for Elasticsearch to be up and running
Standard Commons Logging discovery in action with spring-jcl: please remove commons-logging.jar from classpath in order to avoid potential conflicts
Oct 16, 2025 10:50:39 AM sun.util.locale.provider.LocaleProviderAdapter <clinit>
WARNING: COMPAT locale provider will be removed in future release
2025.10.16 10:51:04 INFO app[][o.s.a.SchedulerImpl] Process[es] is up
2025.10.16 10:51:04 INFO app[][o.s.a.ProcessLauncherImpl] Launch process[WEB_SERVER] from [C:\sonarqube]: C:\Program Files\Java\jdk-21\bin\java -Djava.awt.headless=true -Dfile.encoding=UTF-8 -Djava.io.tmpdir=C:\sonarqube\temp -XX:-OmitStackTraceInFastThrow --add-opens=java.base/java.util=ALL-UNNAMED --add-opens=java.base/java.lang=ALL-UNNAMED --add-opens=java.base/java.io=ALL-UNNAMED --add-opens=java.rmi/sun.rmi.transport=ALL-UNNAMED --add-exports=java.base/jdk.internal.ref=ALL-UNNAMED --add-opens=java.base/java.nio=ALL-UNNAMED --add-opens=java.base/sun.nio.ch=ALL-UNNAMED --add-opens=java.management/sun.management=ALL-UNNAMED --add-opens=java.management/com.sun.management/internal=ALL-UNNAMED -Xmx512m -Xms128m -XX:+HeapDumpOnOutOfMemoryError -Dhttp.nonProxyHosts=localhost|127.*|[:] -cp ./lib/sonar-application-25.9.0.112764.jar ;C:\sonarqube\lib\jdbc\h2\h2-2.3.232.jar org.sonar.server.app.WebServer C:\sonarqube\temp\sq-process1795153938268271474 properties
Standard Commons Logging discovery in action with spring-jcl: please remove commons-logging.jar from classpath in order to avoid potential conflicts
2025.10.16 10:51:20 INFO app[][o.s.a.SchedulerImpl] Process[web] is up
2025.10.16 10:51:21 INFO app[][o.s.a.ProcessLauncherImpl] Launch process[COMPUTE_ENGINE] from [C:\sonarqube]: C:\Program Files\Java\jdk-21\bin\java -Djava.awt.headless=true -Dfile.encoding=UTF-8 -Djava.io.tmpdir=C:\sonarqube\temp -XX:-OmitStackTraceInFastThrow --add-opens=java.base/java.util=ALL-UNNAMED --add-exports=java.base/jdk.internal.ref=ALL-UNNAMED --add-opens=java.base/java.lang=ALL-UNNAMED --add-opens=java.base/java.nio=ALL-UNNAMED --add-opens=java.base/sun.nio.ch=ALL-UNNAMED --add-opens=java.management/sun.management=ALL-UNNAMED --add-opens=jdk.management/com.sun.management/internal=ALL-UNNAMED -Xmx512m -Xms128m -XX:+HeapDumpOnOutOfMemoryError -Dhttp.nonProxyHosts=localhost|127.*|[:] -cp ./lib/sonar-application-25.9.0.112764.jar ;C:\sonarqube\lib\jdbc\h2\h2-2.3.232.jar org.sonar.ce.app.CeServer C:\sonarqube\temp\sq-process609723363677853679properties
Standard Commons Logging discovery in action with spring-jcl: please remove commons-logging.jar from classpath in order to avoid potential conflicts
2025.10.16 10:51:27 INFO app[][o.s.a.SchedulerImpl] Process[ce] is up
2025.10.16 10:51:27 INFO app[][o.s.a.SchedulerImpl] SonarQube is operational
```

Para comprobar que todo está correcto, en el navegador accedemos a la url <http://localhost:9000> y se tiene que mostrar la pantalla de login de sonar. Debemos utilizar como usuario y contraseña **admin**. Según accedemos, hay que cambiar la contraseña (xxxx2025...):





Log in to SonarQube

Login *

Password *

[Go back](#) [Log in](#)

Update your password

⚠ This account should not use the default password.

Enter a new password

Old Password *

Password *

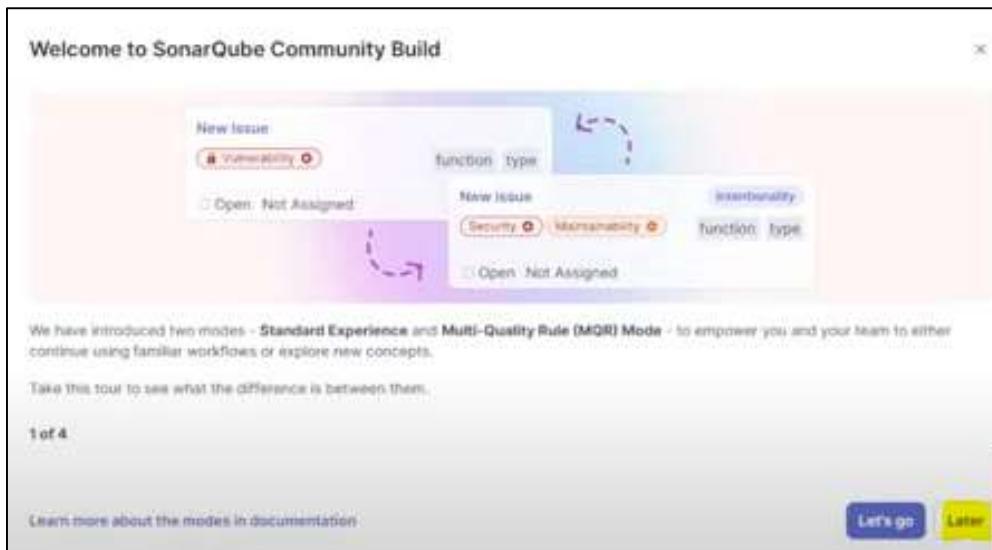
Your password must include at least:

- 12 characters
- 1 upper case letter
- 1 lower case letter
- 1 number
- 1 special character

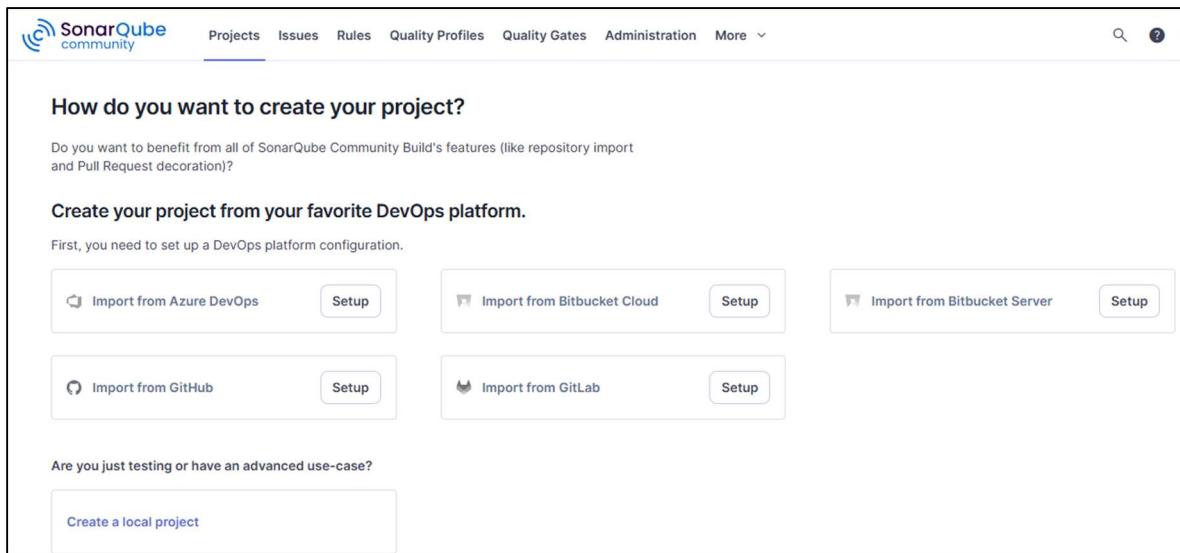
Confirm Password *

[Update](#)

Las próximas pantallas, son de información de utilidad, tutoriales, etc. Se puede acceder más tarde a ellas, así que en principio las obviamos, salvo si se está muy interesado:



Una vez finalizado, nos aparece la siguiente pantalla donde podremos importar los proyectos a analizar:



2. Analizar el código de un proyecto (<https://www.youtube.com/watch?v=v3evzZ-JOQo>)

Vamos a utilizar la opción de proyecto local, ya que es la más común:

The screenshot shows the SonarQube Community interface with the 'Projects' tab selected. The main heading is 'How do you want to create your project?'. Below it, a note says: 'Do you want to benefit from all of SonarQube Community Build's features (like repository import and Pull Request decoration)?'. A sub-section titled 'Create your project from your favorite DevOps platform.' lists import options for Azure DevOps, Bitbucket Cloud, Bitbucket Server, GitHub, and GitLab, each with a 'Setup' button. At the bottom, a question 'Are you just testing or have an advanced use-case?' has a 'Create a local project' button highlighted with a yellow box.

El nombre puede ser el que nosotros queramos. Al añadirlo, automáticamente nos genera una identificación única del proyecto (Project key) e indicamos la rama:

This is a screenshot of the 'Create a local project' wizard, step 1 of 2. It shows the following fields:

- Project display name ***: biblioteca_master
- Project key ***: biblioteca_master
- Main branch name ***: master
- A note below the main branch field: 'The name of your project's default branch' with a 'Learn More' link.

At the bottom are 'Cancel' and 'Next' buttons, with 'Next' being highlighted in blue.

Configuraciones:

Set up project for Clean as You Code

The new code definition sets which part of your code will be considered new code. This helps you focus attention on the most recent changes to your project, enabling you to follow the Clean as You Code methodology. Learn more: [Defining New Code](#).

Choose the baseline for new code for this project

Use the global setting

Previous version
Any code that has changed since the previous version is considered new code.
Recommended for projects following regular versions or releases.

Define a specific setting for this project

Previous version
Any code that has changed since the previous version is considered new code.
Recommended for projects following regular versions or releases.

Number of days
Any code that has changed in the last x days is considered new code. If no action is taken on a new issue after x days, this issue will become part of the overall code.
Recommended for projects following continuous delivery.

Reference branch
Choose a branch as the baseline for the new code.
Recommended for projects using feature branches.

[Back](#) **Create project**

Analysis Method

Use this page to manage and set-up the way your analyses are performed.

How do you want to analyze your repository?

With Jenkins

With GitHub Actions

With Bitbucket Pipelines

With GitLab CI

With Azure Pipelines

Other CI
SonarQube Community Build integrates with your workflow no matter which CI tool you're using.

Locally
Use this for testing or advanced use-case. Other modes are recommended to help you set up your CI environment.

Hay que generar un token, que es una medida de seguridad, e indicarle el tiempo que va a tardar en expirar:

Analyze your project

We initialized your project on SonarQube Community Build, now it's up to you to launch analyses!

1 Provide a token

[Generate a project token](#)

[Use existing token](#)

Token name * ⓘ

Analyze "biblioteca_master"

Expires in

30 days

[Generate](#)

- ⓘ Please note that this token will only allow you to analyze the current project. If you want to use the same token to analyze multiple projects, you need to generate a global token in your [user account](#). See the [documentation](#) for more information.

The token is used to identify you when an analysis is performed. If it has been compromised, you can revoke it at any point in time in your [user account](#).

Hay que **copiar el token** generado y pegarlo en un bloc de notas o similar, ya que más adelante se va a necesitar:

Analyze your project

We initialized your project on SonarQube Community Build, now it's up to you to launch analyses!

1 Provide a token

Analyze "biblioteca_master": **sqp_12b10daadb0ec5ad0c6da2754997e54284d6f49e** ⓘ

The token is used to identify you when an analysis is performed. If it has been compromised, you can revoke it at any point in time in your [user account](#).

[Continue](#)

1 Provide a token

Analyze "biblioteca" →

2 Run analysis on your project

What option best describes your project?

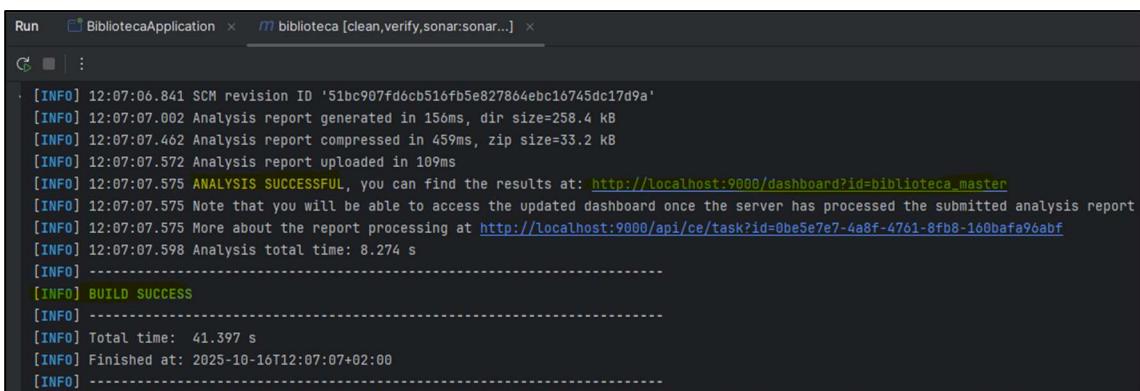
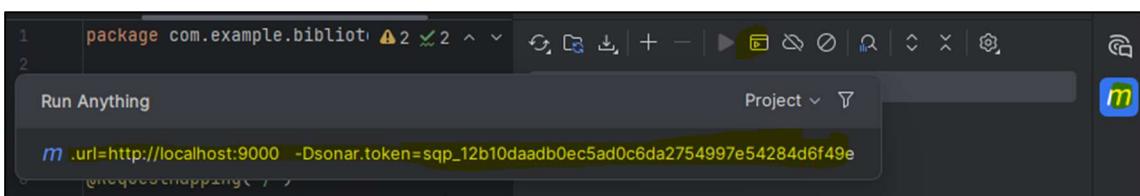
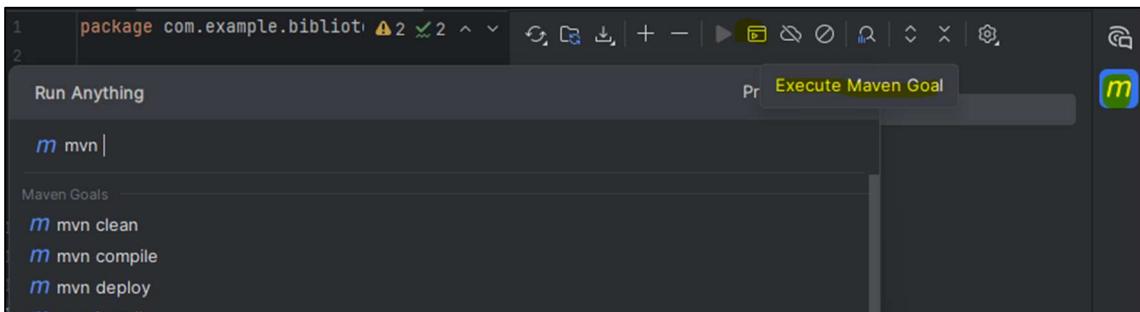
Maven Gradle JS/TS & Web .NET Python Other (for Go, PHP, ...)

Execute the Scanner for Maven

Running a SonarQube analysis with Maven is straightforward. You just need to run the following command in your project's folder.

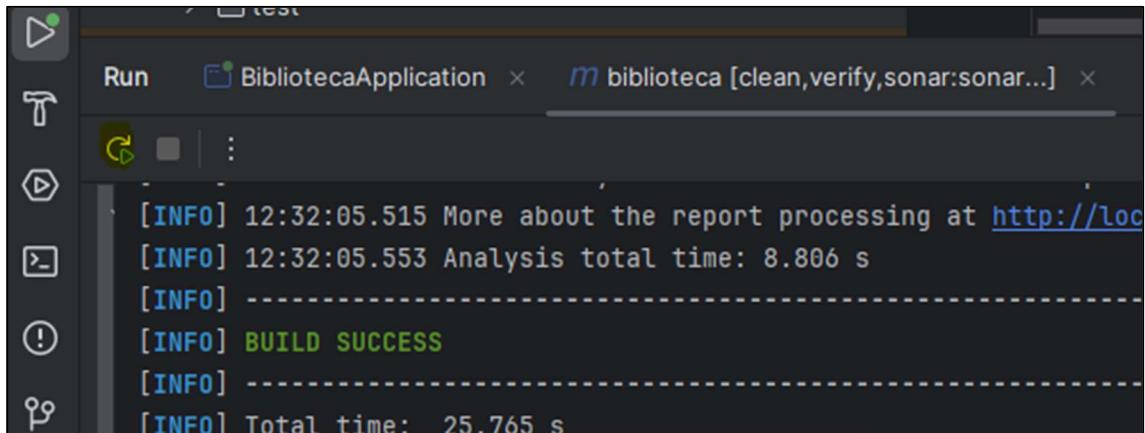
```
mvn clean verify sonar:sonar \
-Dsonar.projectKey=biblioteca_master \
-Dsonar.projectName='biblioteca_master' \
-Dsonar.host.url=http://localhost:9000 \
-Dsonar.token=sq_12b10daadb0ec5ad0c6da2754997e54284d6f49e
```

El código que nos generó hay que ejecutarlo en el IntelliJ Idea, como una tarea de Maven. Copiar los comandos en un bloc de notas (o Notepad, etc), eliminar las \, copiar de nuevo sin las \, pegarlo en el maven goal y ejecutarlo pulsando intro.

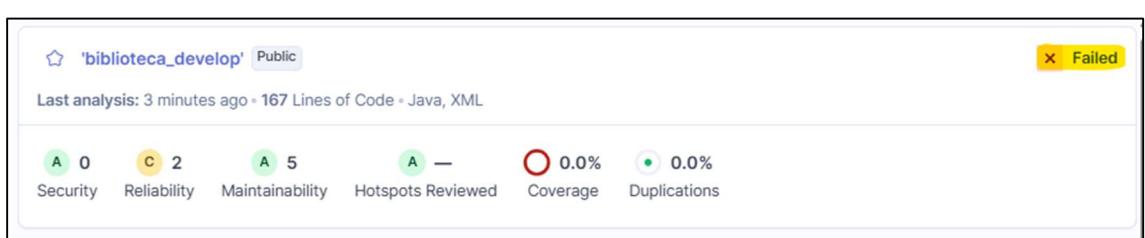


La url generada es justo el panel de control de sonarqube donde podemos ver el resultado del análisis: http://localhost:9000/dashboard?id=biblioteca_master.

Para volver a analizar el código, una vez comiteado y pusheado los cambios, se ejecuta de nuevo la tarea Maven (por ejemplo, sobre develop) y comprobamos el resultado desde el navegador:



```
[INFO] 12:32:05.515 More about the report processing at http://localhost:9000/dashboard?id=biblioteca\_master
[INFO] 12:32:05.553 Analysis total time: 8.806 s
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 25.765 s
```

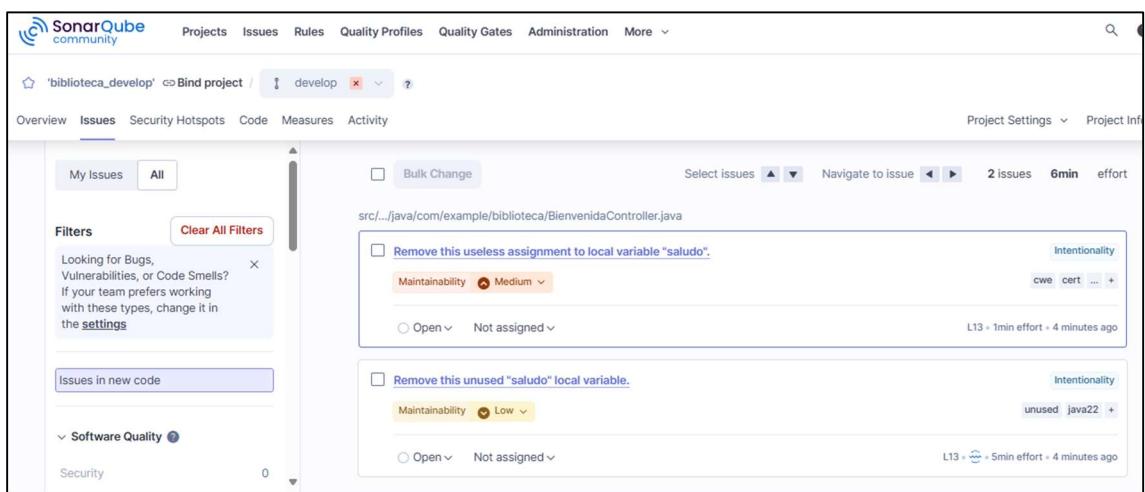


The dashboard shows the following metrics for the last analysis (3 minutes ago):

- Security: 0
- Reliability: 2
- Maintainability: 5
- Hotspots Reviewed: —
- Coverage: 0.0%
- Duplications: 0.0%

A yellow "Failed" status indicator is present in the top right corner.

Accedemos al proyecto y podemos mirar por qué falló y cómo solucionarlo:

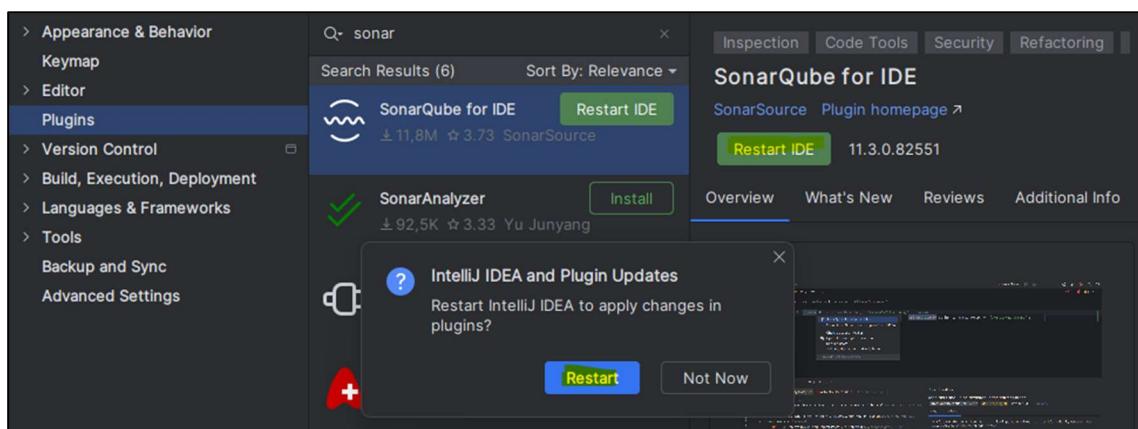
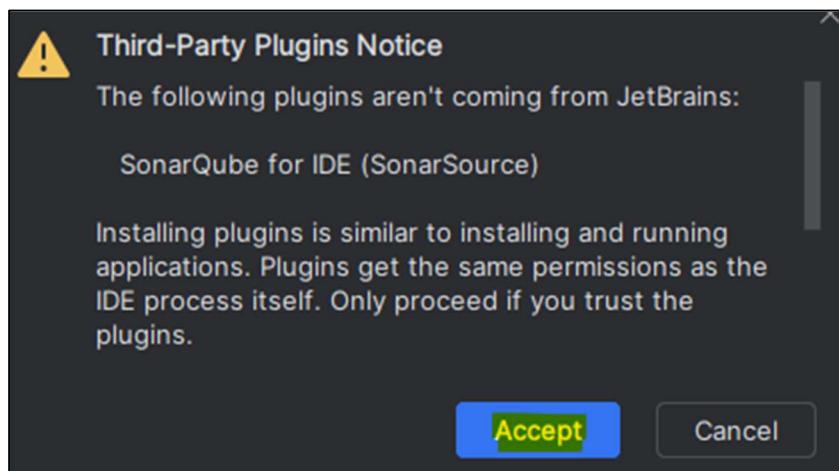
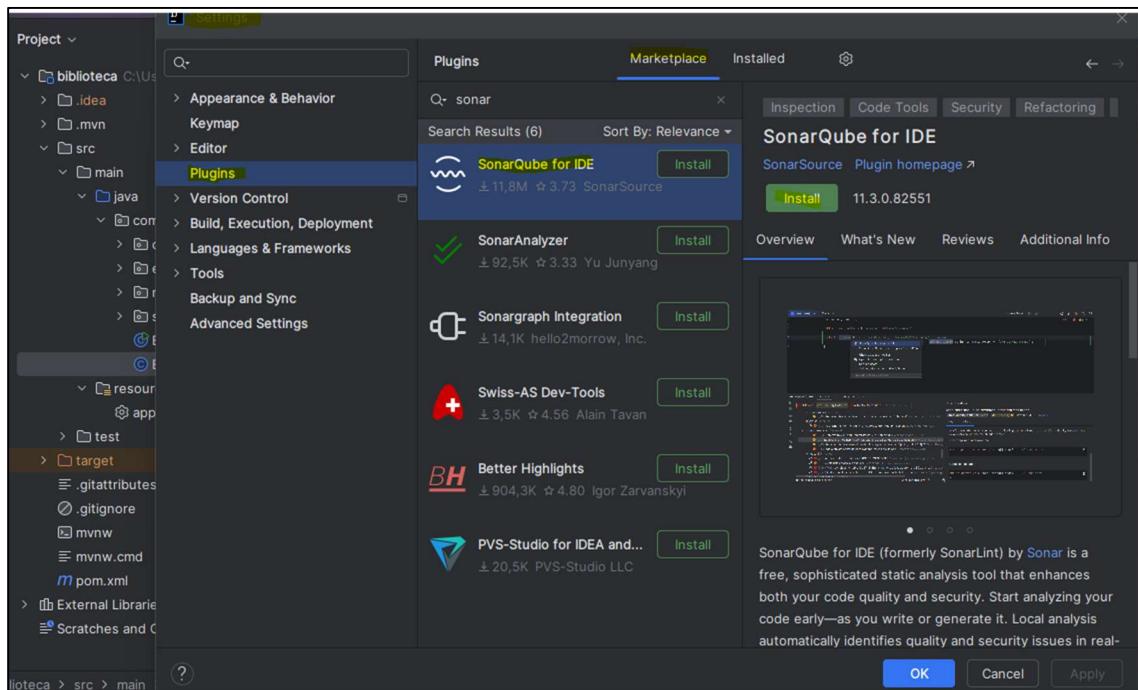


The Issues page displays two findings:

- src/.../java/com/example/biblioteca/BienvenidaController.java**:
 - Remove this useless assignment to local variable "saludo".** (Medium Intentionality)
Maintainability: Medium
Status: Open
Effort: 1min effort (4 minutes ago)
 - Remove this unused "saludo" local variable.** (Low Intentionality)
Maintainability: Low
Status: Open
Effort: 5min effort (4 minutes ago)

EN INTELLIJ IDEA

Instalar el plugin desde File → Settings → Plugin



Una vez reiniciado el IDE, aparecerá una nueva opción en el menú que nos permitirá analizar el código de las aplicaciones directamente:

The screenshot shows the SonarQube for IDE interface integrated into a Java code editor. The code editor displays `BienvenidaController.java` with two issues highlighted:

```
1 package com.example.biblioteca;
2
3 > import ...
4
5
6
7 @RestController no usages & patriciasfo
8 @RequestMapping("/")
9 public class BienvenidaController {
10
11     @GetMapping no usages & patriciasfo
12     public String bienvenida() {
13         String saludo = "Bienvenid@ al IES Monte Naranco!! a todos";
14         return "Bienvenid@ al IES Monte Naranco!! a todos \n Añado para forz
15     }
16 }
17
```

The SonarQube interface below the code editor shows the following details:

- SonarQube for IDE
- Findings (highlighted)
- Log
- Help & Feedback

Issues summary:

- 2 Issues
- Security Hotspots
- Taint Vulnerabilities
- Dependency Risks

Details of found issues:

- Found 2 issues
 - (13, 22) Remove this useless assignment to local variable "saludo". 15 minutes ago
 - (13, 15) Remove this unused "saludo" local variable. 15 minutes ago java:S1481

Other controls and status:

- Automatic analysis is enabled
- What's in this view