

# Code quality

Quantifier la qualité du code





Compétence demandée : Savoir quantifier automatiquement la qualité du code d'une application



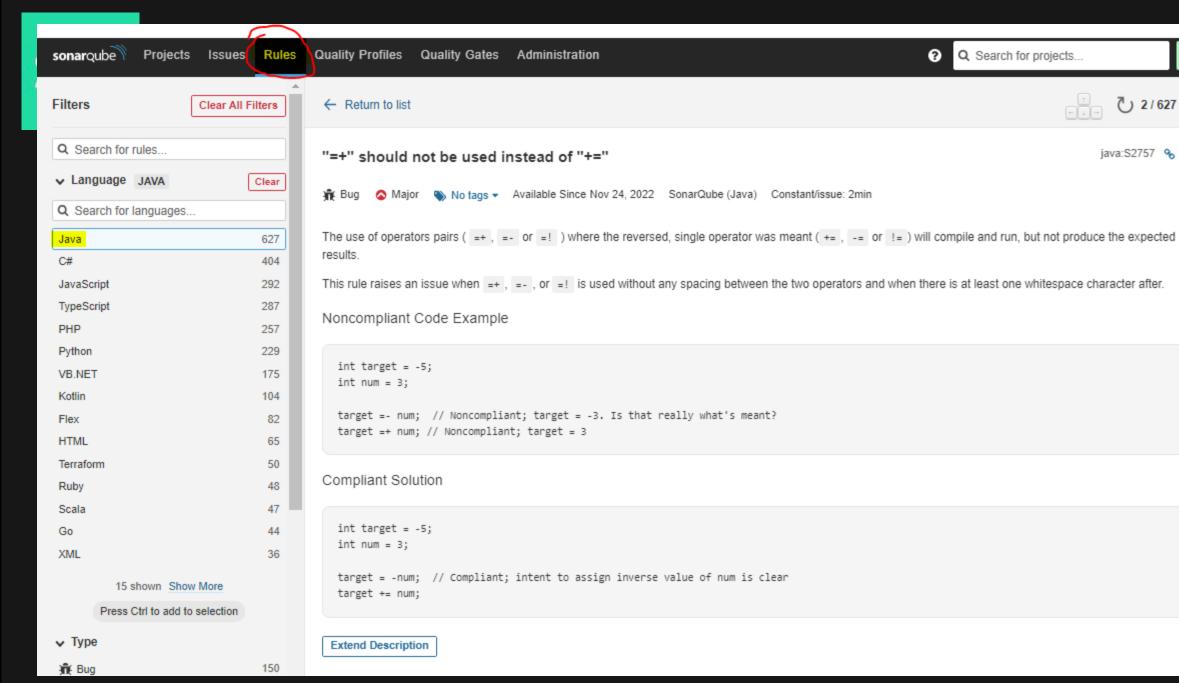
Bugs	Un problème qui représente quelque chose de mal dans le code. Si ce n'est pas encore cassé, ça le fera, et probablement au pire moment possible.
Vulnerabilities	Un problème lié à la sécurité qui représente une porte dérobée pour les attaquants
Security Hotspots	Morceaux de code sensibles à la sécurité qui doivent être examinés manuellement. Après examen, vous constaterez soit qu'il n'y a pas de menace, soit qu'il existe un code vulnérable qui doit être corrigé.
Debt	Le temps estimé nécessaire pour résoudre tous les problèmes de maintenabilité / odeurs de code
Code smells	Un problème lié à la maintenabilité dans le code. Le laisser tel quel signifie qu'au mieux les mainteneurs auront plus de mal qu'ils ne le devraient à apporter des modifications au code. Au pire, ils seront tellement confus par l'état du code qu'ils introduiront des erreurs supplémentaires à mesure qu'ils apporteront des cmodifications.
Corverage	Pourcentage des lignes couvert par des tests
Duplications	Code dupliqué



- 1. Installer SonarQube
- 2. Créer le projet
- 3. Créer un token
- 4. Installer SonarScanner
- 5. Lancer une analyse
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- 7. Intégrez dans Jenkins



https://www.sonarqube.org/downloads/



2 / 627 rules

java:S2757 % ▼▼



sonarqube Projects Issues Rules	Quality Profiles  Quality Gates	Administration	? Q Search for projects
Quality Gates   Create	Sonar way BUILT-IN		
Sonar way DEFAULT BUILT-IN	Conditions ©		
	Conditions on New Code		
	Metric	Operator	Value
	Coverage	is less than	80.0%
	Duplicated Lines (%)	is greater than	3.0%
	Maintainability Rating	is worse than	A
	Reliability Rating	is worse than	A
	Security Hotspots Reviewed	is less than	100%
	Security Rating	is worse than	A
	Projects   Every project not specifically association one by default.	ited to a quality gate will be associated to this	

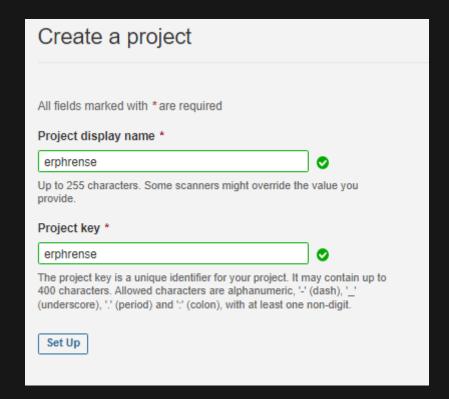


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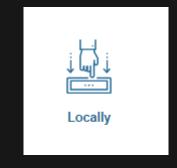




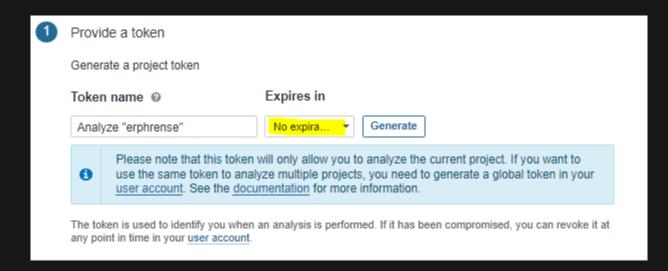


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### CERTIF ACADEMY







Provide a token

Analyze "erphrense": sqp\_4d85ada2c17d4a5901897244e46336c4be59c1ab



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

# CERTIF

2

Run analysis on your project

What option best describes your build?

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

What is your OS?

Linux Windows macOS

#### Download and unzip the Scanner for Windows

Visit the official documentation of the Scanner to download the latest version, and add the bin directory to the %PATH% environment variable

#### **Execute the Scanner**

Running a SonarQube analysis is straighforward. You just need to execute the following commands in your project's folder.

sonar-scanner.bat -D"sonar.projectKey=erphrense" -D"sonar.sources=." -D"sonar.host.url=http://localhost:9000" -D"sonar.login=sqp\_4d85ada2c17d4a5901897244e46336c4be59c1ab"

Сору

Please visit the official documentation of the Scanner for more details.

Is my analysis done? If your analysis is successful, this page will automatically refresh in a few moments.

You can set up Pull Request Decoration under the project settings. To set up analysis with your favorite CI tool, see the tutorials.

Check these useful links while you wait: Branch Analysis, Pull Request Analysis.



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# **SonarScanner**

By SonarSource GNU LGPL 3 Issue Tracker

4.7

Show more versions

2022-02-22

Ease import of custom certificates with the Docker image, update embedded JRE 11

Linux 64-bit Windows 64-bit Mac OS X 64-bit Docker

Any (Requires a pre-installed JVM) Release notes

The SonarScanner is the scanner to use when there is no specific scanner for your build system.



https://docs.sonarqube.org/8.9/an alysis/analysis-parameters/



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# sonar-scanner.bat

- -D"sonar.projectKey=erphrense"
- -D"sonar.sources=."
- -D"sonar.host.url=http://localhost:9000"
- -D"sonar.login=sqp\_4d85ada2c17d4a5901897244e46336c4be59c1ab"
- -D"sonar.java.binaries=target/classes"



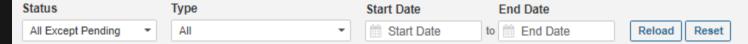
```
INFO: Sensor Zero Coverage Sensor (done) | time=65ms
INFO: Sensor Java CPD Block Indexer
INFO: Sensor Java CPD Block Indexer (done) | time=106ms
INFO: SCM Publisher SCM provider for this project is: git
INFO: SCM Publisher 15/15 source files have been analyzed (done) | time=4886ms
INFO: CPD Executor 8 files had no CPD blocks
INFO: CPD Executor Calculating CPD for 6 files
INFO: CPD Executor CPD calculation finished (done) | time=39ms
INFO: Analysis report generated in 271ms, dir size=152.1 kB
INFO: Analysis report compressed in 1311ms, zip size=44.8 kB
INFO: Analysis report uploaded in 119ms
INFO: ANALYSIS SUCCESSFUL, you can find the results at: http://localhost:9000/dashboard?id=erphrense
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/ce/task?id=AYStJBRT8yrs u6jGIGi
INFO: Analysis total time: 24.894 s
TNFO: -----
INFO: EXECUTION SUCCESS
TNFO: -----
INFO: Total time: 28.366s
INFO: Final Memory: 21M/77M
INFO: -----
```



#### **Background Tasks**

This page allows monitoring of the queue of tasks running asynchronously on the server. It also gives access to the history of finished tasks and their status. Analysis report processing is the most common kind of background task. Learn More

# 0 pending



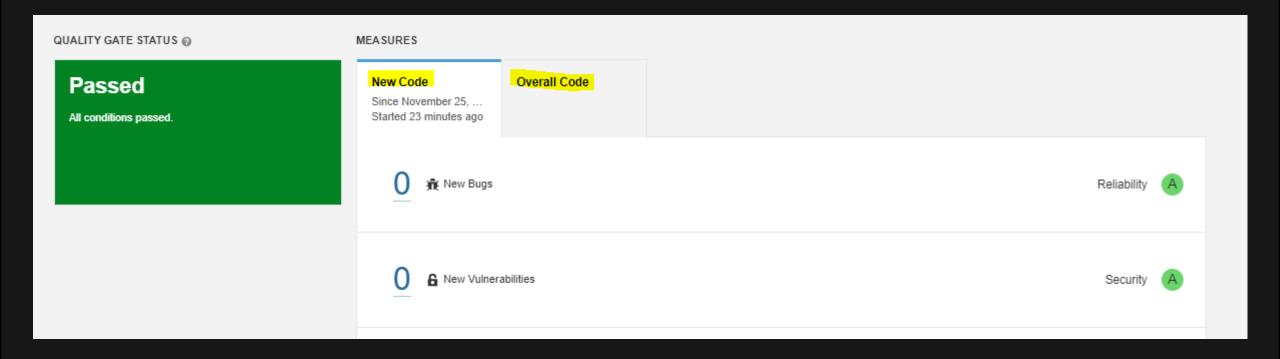
Status	Task	ID	Submitter	Submitted	Started	Finished	Duration	
SUCCESS	erphrense [Project Analysis]	AYStN3Vu9_GiX7_nVdDo	admin	November 25, 2022 6:16:43 AM	6:16:44 AM	6:17:01 AM	<b>17</b> s	<b>Q</b> *
FAILED	erphrense [Project Analysis]	AYStJBRT8yrs_u6jGlGi	admin	5:55:33 AM	5:55:34 AM	5:55:58 AM	23s	<b>Q</b> *

2 of 2 shown



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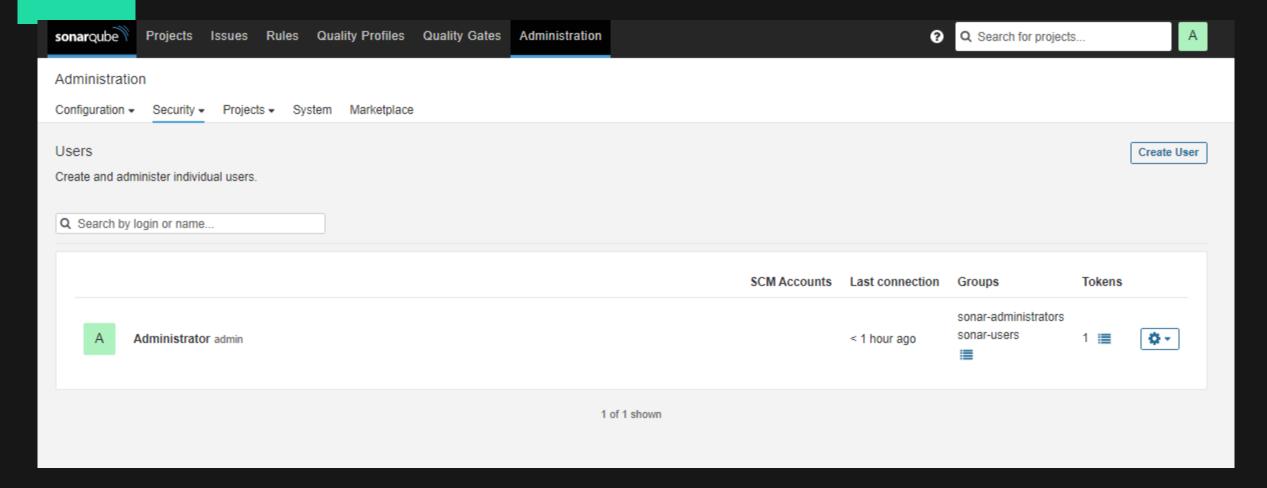


https://www.jenkins.io/doc/pipeline/steps/sonar/

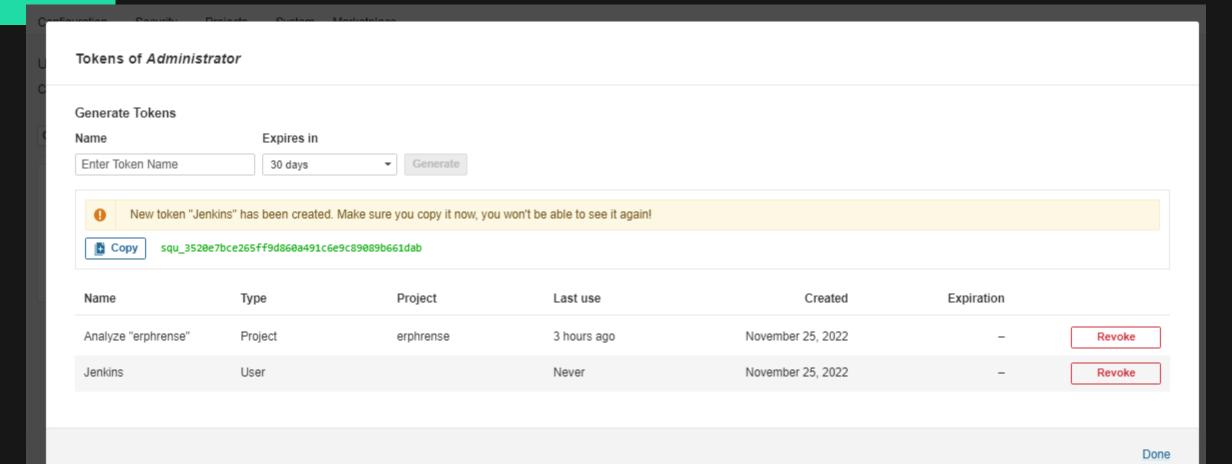


- 1. Créer un user token pour accéder à SonarQube
- 2. Enregistrer ces identifiants dans Jenkins
- 3. Installer le plugin SonarQube
- 4. Enregistrer le webhook Jenkins dans SonarQube
- 5. Ajouter un step dans le build











- 1. Créer un user token pour accéder à SonarQube
- 2. Enregistrer ces identifiants dans Jenkins
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- 5. Ajouter un step dans le build







#### SonarQube servers

If checked, job administrators will be able to inject a SonarQube server configuration as environment variables in the build.

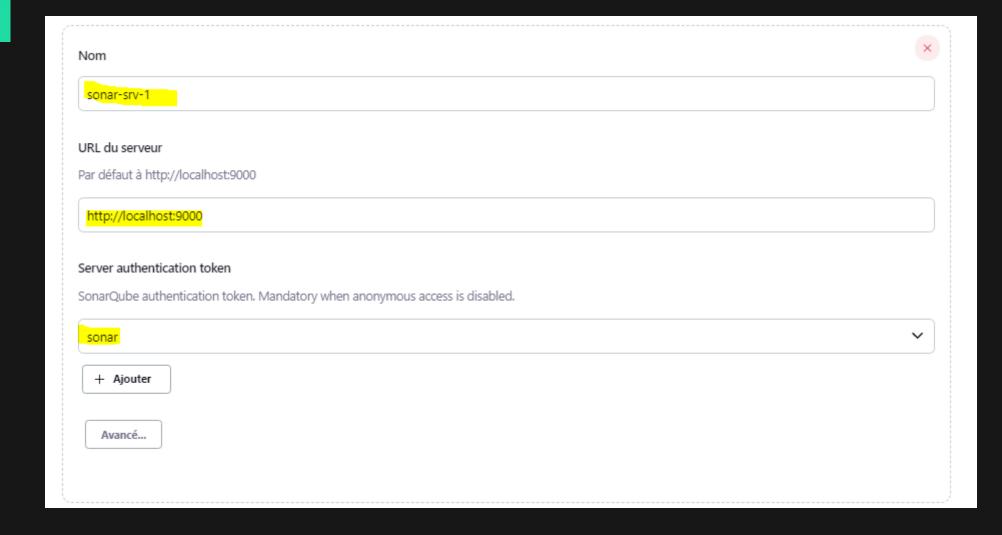
Environment variables Enable injection of SonarQube server configuration as build environment variables

#### Installations de SonarQube

Liste des installations de SonarQube

Ajouter une installation SonarQube

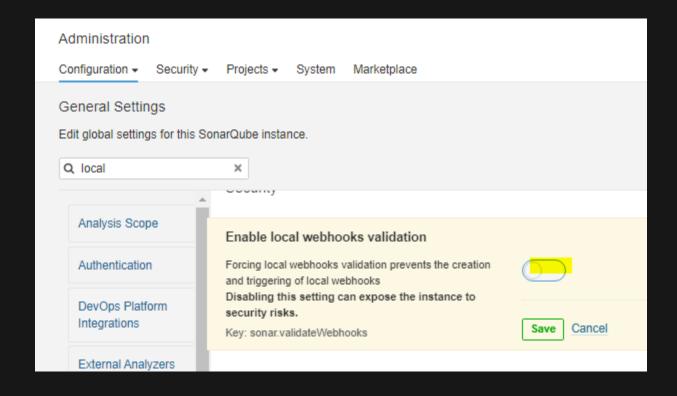




# CERTIF ACADEMY

All fields marked with * are required	
Name *	
jenkins	
URL *	
http://localhost:8080/sonarqube-webhook	d
	cation is used, HTTP:
•	cation is used, HTTP:
"http://my_server/foo". If HTTP Basic authentic recommended to avoid man in the middle atta "https://myLogin:myPassword@my_server/foo	cation is used, HTTP:
"http://my_server/foo". If HTTP Basic authentic recommended to avoid man in the middle atta "https://myLogin:myPassword@my_server/foo	cation is used, HTTP: lcks. Example: " enerate the HMAC he





# CERTIF ACADEMY