

https://blog.setapp.pl/sonarqube_introduction
<https://www.youtube.com/watch?v=kzCCZ3RucsQ>
<https://www.youtube.com/watch?v=EvOUyh5kpk0>

Components of sonarqube:

Sonarqube server:

Rules

Database

Web interface

Sonar scanner:

Source code

Sonarcode.properties file

Rules:

"!important" should not be used on "keyframes"	CSS	Bug	▼
"\$this" should not be used in a static context	PHP	Bug	▼
"&&" and " " should be used	PHP	Code Smell	suspicious ▼
".equals()" should not be used to test the values of "Atomic" classes	Java	Bug	multi-threading ▼
"<!DOCTYPE>" declarations should appear before "<html>" tags	HTML	Bug	user-experience ▼
"<>" should not be used to test inequality	Python	Code Smell	obsolete ▼
"<?php" and "<?=" tags should be used	PHP	Code Smell	convention, psr1 ▼
"<fieldset>" tags should contain a "<legend>"	HTML	Bug	accessibility ▼
"<frames>" should have a "title" attribute	HTML	Bug	accessibility ▼
"<html>" element should have a language attribute	HTML	Bug	accessibility, wcag2-a ▼
"" and "<dt>" item tags should be in "", "" or "<dl>" container tags	HTML	Bug	▼
"<object>" tags should provide an alternative content	HTML	Code Smell	accessibility, wcag2-a ▼
"" and "" tags should be used	HTML	Bug	accessibility ▼
"<table>" tags should have a description	HTML	Bug	accessibility, wcag2-a ▼
"<th>" tags should have "id" or "scope" attributes	HTML	Bug	accessibility, wcag2-a ▼
"<title>" should be present in all pages	HTML	Bug	user-experience ▼
"=" should not be used instead of "+="	Java	Bug	▼
"=" should not be used instead of "+="	C#	Bug	▼
"=" should not be used instead of "+="	VB.NET	Bug	▼
"=" should not be used instead of "+="	PHP	Bug	▼
"=" should not be used instead of "+="	Python	Bug	▼

Quality Profiles

[Create](#)[Restore](#)

Quality Profiles are collections of rules to apply during an analysis.

For each language there is a default profile. All projects not explicitly assigned to some other profile will be analyzed with the default.

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For each language there is a default profile. All projects not explicitly assigned to some other profile will be analyzed with the default. Ideally, all projects will use the same profile for a language. [Learn More](#)

Filter profiles by:

C#, 1 profile(s)	Projects ?	Rules	Updated	Used
Sonar way BUILT-IN	DEFAULT	255	54 minutes ago	Never

CSS, 1 profile(s)	Projects ?	Rules	Updated	Used
Sonar way BUILT-IN	DEFAULT	23	54 minutes ago	Never

CloudFormation, 1 profile(s)	Projects ?	Rules	Updated	Used
Sonar way BUILT-IN	DEFAULT	26	54 minutes ago	Never

Flex, 1 profile(s)	Projects ?	Rules	Updated	Used
Sonar way BUILT-IN	DEFAULT	47	54 minutes ago	Never

Go, 1 profile(s)	Projects ?	Rules	Updated	Used
Sonar way BUILT-IN	DEFAULT	25	54 minutes ago	Never

HTML, 1 profile(s)	Projects ?	Rules	Updated	Used
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Quality Gates:

Quality ProfilesQuality GatesAdministration

?

Search for projects...

A

Sonar wayBUILT-IN

Copy

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

Add Condition

☐ On New Code

☒ On Overall Code

Quality Gate fails when

Search for metrics...

Complexity

Cognitive Complexity

Cyclomatic Complexity

Coverage

Condition Coverage

Conditions to Cover

Coverage

Line Coverage

Lines to Cover

Skipped Unit Tests

Run sonar analysis

```
mvn clean verify sonar:sonar \
-Dsonar.projectKey=hello-world \
-Dsonar.host.url=http://34.125.187.50:9000 \
```

-Dsonar.login=048187cd83d78dc82680eea66fb9182b07050783

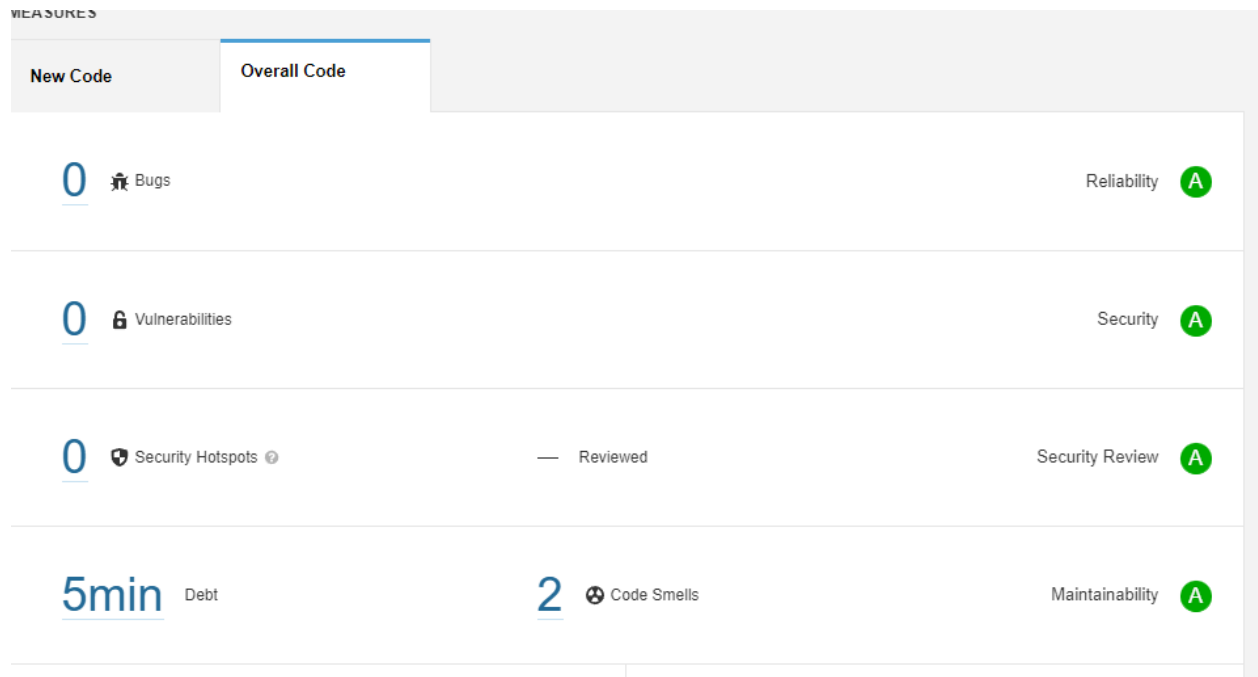
Configure SonarQube with Jenkins

Installation

1. [Install the SonarScanner for Jenkins via the Jenkins Update Center.](#)
2. Configure your SonarQube server(s):
 1. Log into Jenkins as an administrator and go to **Manage Jenkins > Configure System**.
 2. Scroll down to the SonarQube configuration section, click **Add SonarQube**, and add the values you're prompted for.
 3. The server [authentication token](#) should be created as a 'Secret Text' credential.

Jenkins file

```
pipeline{
  agent any
  stages{
    stage('SCM') {
      steps{
        git
        'https://github.com/ybsgit/hello-world-new.git'
      }
    }
    stage('SonarQube analysis') {
      steps{
        withSonarQubeEnv('sonarqube-new') {
          sh "mvn sonar:sonar"
        }
      }
    }
  }
}
```



Pause pipeline until the Quality Gate is computed

Pre-requisites:

- Configure a webhook in your SonarQube server pointing to <your Jenkins instance>/sonarqube-webhook/
- Use `withSonarQubeEnv` step in your pipeline (so that SonarQube taskId is correctly attached to the pipeline context).

Declarative pipeline example:

```
pipeline {  
  agent any  
  stages {
```

```

    stage('SCM') {
        steps {
            git url: 'https://github.com/foo/bar.git'
        }
    }
    stage('build && SonarQube analysis') {
        steps {
            withSonarQubeEnv('My SonarQube Server') {
                // Optionally use a Maven environment you've configured already
                withMaven(maven:'Maven 3.5') {
                    sh 'mvn clean package sonar:sonar'
                }
            }
        }
    }
    stage("Quality Gate") {
        steps {
            timeout(time: 1, unit: 'HOURS') {
                // Parameter indicates whether to set pipeline to UNSTABLE if
Quality Gate fails
                // true = set pipeline to UNSTABLE, false = don't
                waitForQualityGate abortPipeline: true
            }
        }
    }
}

```