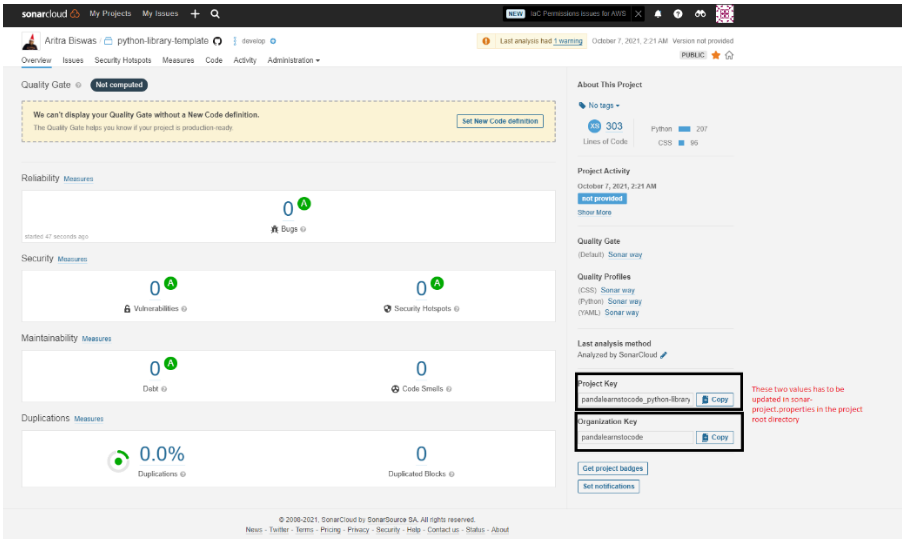
Running static code analysis using Sonar Cloud in CI pipeline

Step 1: Importing project to sonar cloud: login to sonarcloud.io → import GitHub organization → select a repository in which you want to run sonar cloud static code analysis → sonar cloud will import the repository → copy paste the project key and organization key from the landing page → these values has to be updated in sonar-project.properties in project root directory.



Last analysis had 1 warning October 7, 2021, 2:21 AM Version not provided

Quality Gate Not computed

We can't display your Quality Gate without a New Code definition.
The Quality Gate helps you know if your project is production-ready.

Reliability
0 A Bugs
started 47 seconds ago

Security
0 A Vulnerabilities
0 A Security Hotspots

Maintainability
0 A Debt
0 Code Smells

Duplications
0.0% Duplications
0 Duplicated Blocks

About This Project
No tags
XS 303 Lines of Code
Python 207
CSS 96

Project Activity
October 7, 2021, 2:21 AM
not provided

Quality Gate
(Default) Sonar way

Quality Profiles
(CSS) Sonar way
(Python) Sonar way
(YAML) Sonar way

Last analysis method
Analyzed by SonarCloud

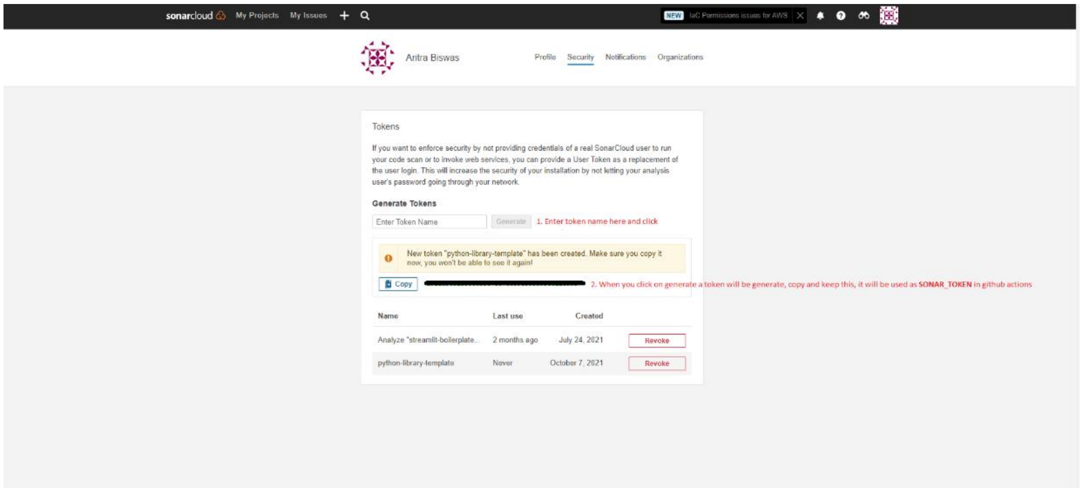
Project Key
pandalearnstocode_python-library

Organization Key
pandalearnstocode

These two values has to be updated in sonar-project.properties in the project root directory

© 2008-2021, SonarCloud by SonarSource SA. All rights reserved.
News - Twitter - Terms - Pricing - Privacy - Security - Help - Contact us - Status - About

Step 2: Get SONAR_TOKEN from sonarcloud.io. Log into SonarCloud → Click on your profile → 'My Account' → 'Security' → Generate your access token for SonarCloud here → Go to your repository settings in GitHub → 'Secrets' → add a new secret with name SONAR_TOKEN and use the generated SonarCloud access token as value.



Tokens

If you want to enforce security by not providing credentials of a real SonarCloud user to run your code scan or to invoke web services, you can provide a User Token as a replacement of the user login. This will increase the security of your installation by not letting your analysis user's password going through your network.

Generate Tokens

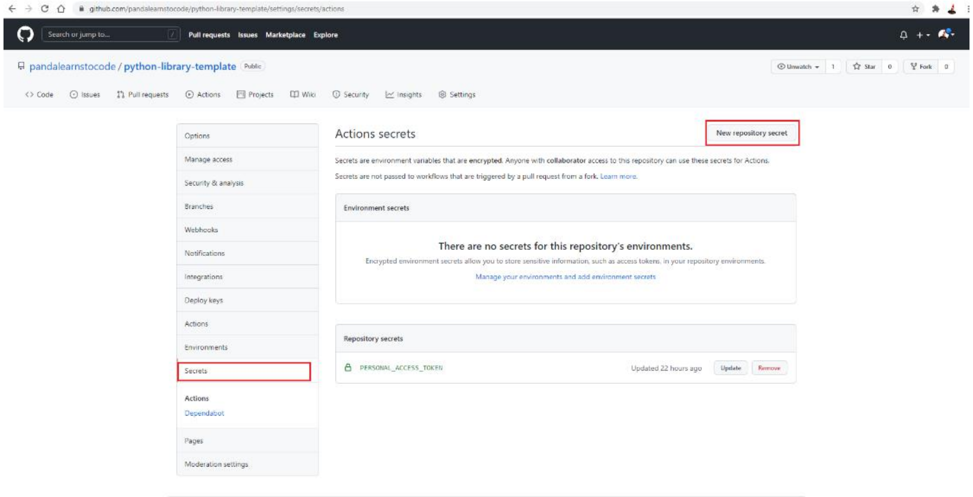
Enter Token Name

1. Enter token name here and click

New token "python-library-template" has been created. Make sure you copy it now, you won't be able to see it again!

[redacted] 2. When you click on generate a token will be generate, copy and keep this, it will be used as **SONAR_TOKEN** in github actions

Name	Last use	Created	
Analyze "streamlit-boilerplate...	2 months ago	July 24, 2021	Revoke
python-library-template	Never	October 7, 2021	Revoke



Actions secrets

Secrets are environment variables that are **encrypted**. Anyone with **collaborator** access to this repository can use these secrets for Actions.

Secrets are not passed to workflows that are triggered by a pull request from a fork. Learn more.

Environment secrets

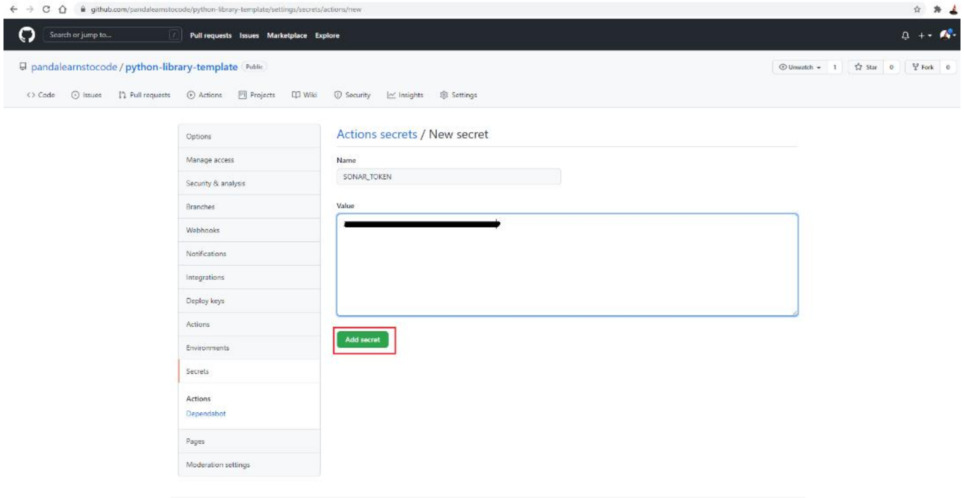
There are no secrets for this repository's environments.

Encrypted environment secrets allow you to store sensitive information, such as access tokens, in your repository environments.

Manage your environments and add environment secrets

Repository secrets

PERSONAL_ACCESS_TOKEN Updated 22 hours ago



Actions secrets / New secret

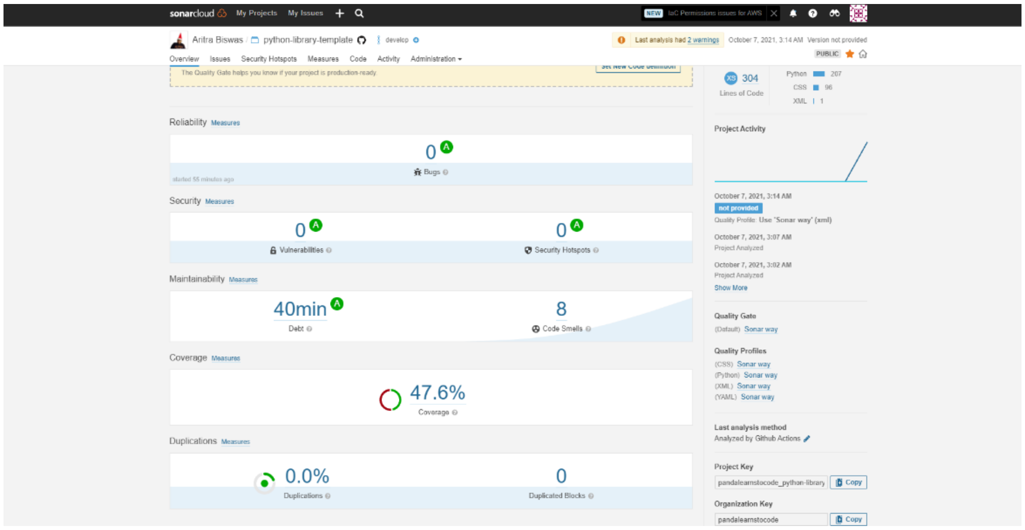
Name

SONAR_TOKEN

Value

[redacted]

Step 4: Add pytest, flake8 and pylint related command in action → add SonarCloud action in GitHub action → From sonar cloud project → administrative → switch off automatic integration with github repository → trigger CI pipeline → Validate all the required things are getting reflected in sonar cloud dashboard or not.



Last analysis had 2 warnings October 7, 2021, 3:14 AM Version not provided

The Quality Gate helps you know if your project is production-ready.

Reliability

0 A Bugs

started 55 minutes ago

Security

0 A Vulnerabilities

0 A Security Hotspots

Maintainability

40min A Debt

8 Code Smells

Coverage

47.6% Coverage

Duplications

0.0% Duplications

0 Duplicated Blocks

XS 304 Lines of Code

Python 207

CSS 96

XML 1

Project Activity

October 7, 2021, 3:14 AM

not provided

Quality Profile: Use 'Sonar way' (xml)

October 7, 2021, 3:07 AM

Project Analyzed

October 7, 2021, 3:02 AM

Project Analyzed

Quality Gate

(Default) Sonar way

Quality Profiles

(CSS) Sonar way

(Python) Sonar way

(XML) Sonar way

(YAML) Sonar way

Last analysis method

Analyzed by Github Actions

Project Key

pandalearnstocode_python-library

Organization Key

pandalearnstocode

TODO:

- Quality gate
- PR decorator
- Adding status badge
- Notification if the merge fails
- Enabling things based on PR, not by push

Reference:

1. https://dev.to/remast/go-for-sonarcloud-with-github-actions-3pmn
2. https://github.com/pandalearnstocode/python-library-template/blob/develop/.github/workflows/python-app.yml
3. https://github.com/pandalearnstocode/python-library-template/blob/develop/sonar-project.properties
4. https://sonarcloud.io/dashboard?id=pandalearnstocode_python-library-template