Name: Rajas Dholam

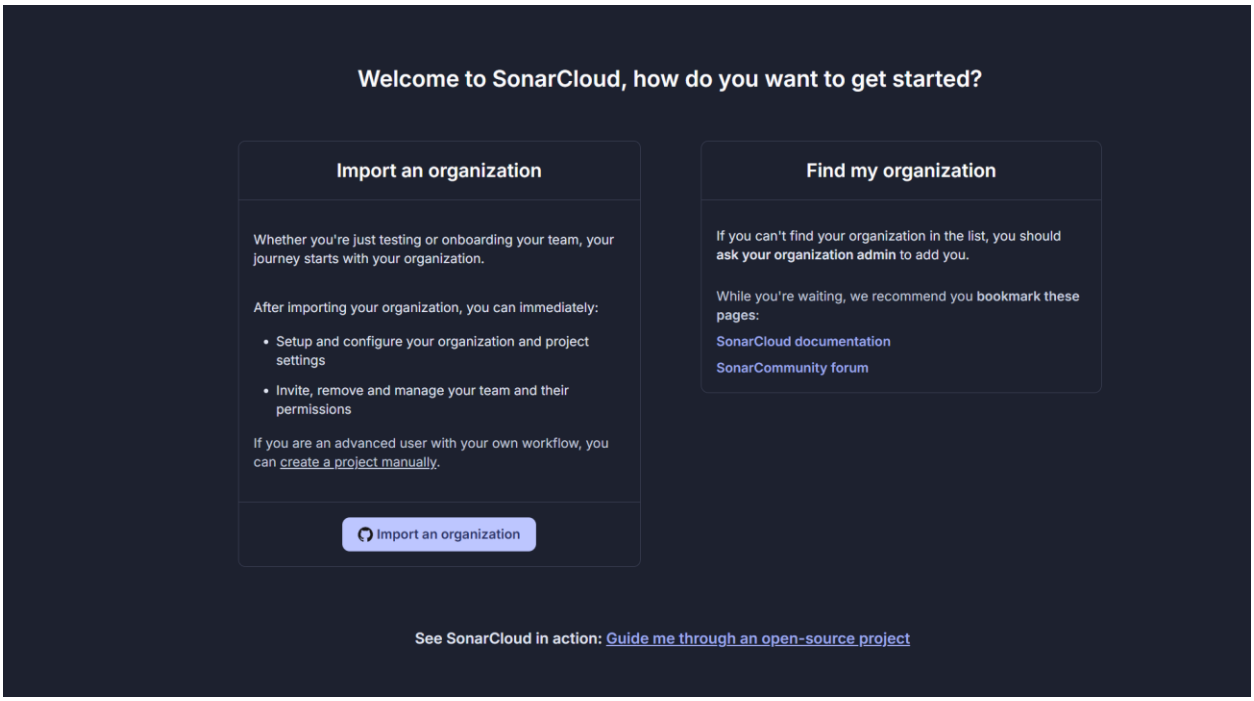
Roll No:A013

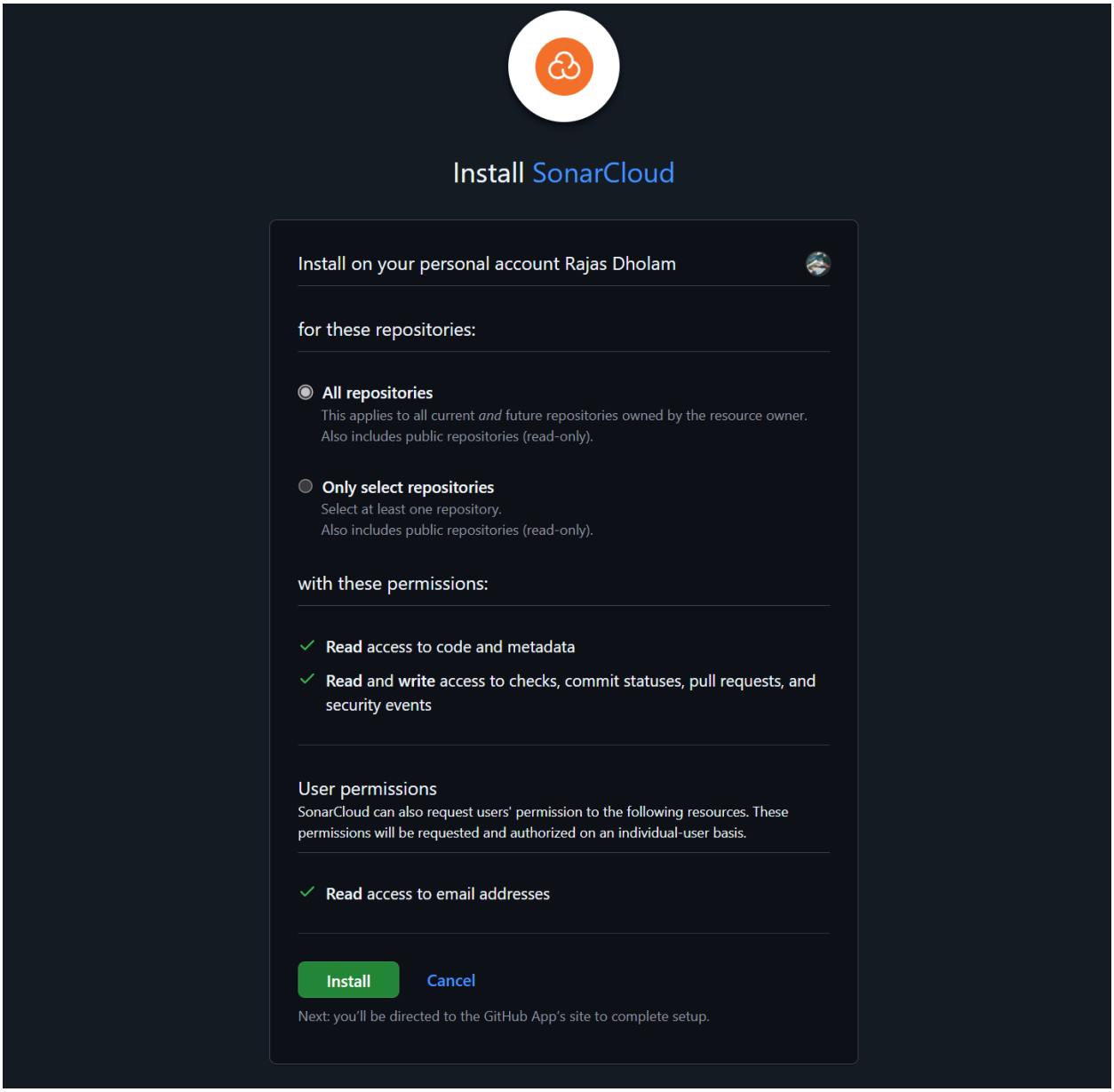
Q1. Integrate a basic Python project into SonarCloud and analyze its code quality. Configure the project to show issues like code smells, bugs, and security vulnerabilities.

Step 1) I Go to sonar cloud

Sign up using your GitHub

Authorize SonarCloud to access your repositories.




Install SonarCloud
Install on your personal account Rajas Dholam
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).
with these permissions:
Read access to code and metadata
Read and write access to checks, commit statuses, pull requests, and security events
User permissions
SonarCloud can also request users' permission to the following resources. These permissions will be requested and authorized on an individual-user basis.
Read access to email addresses
Install
Cancel
Next: you'll be directed to the GitHub App's site to complete setup.

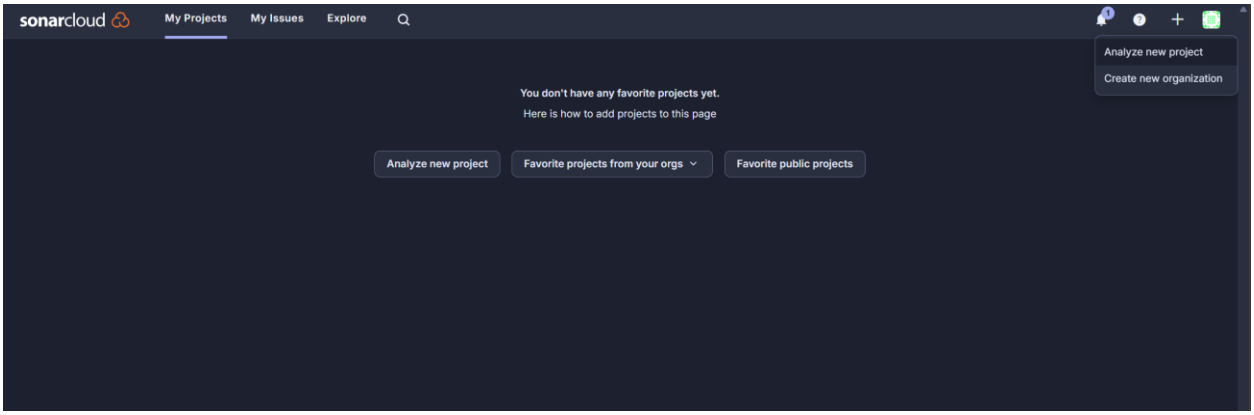
Step 2) Create a Project on SonarCloud

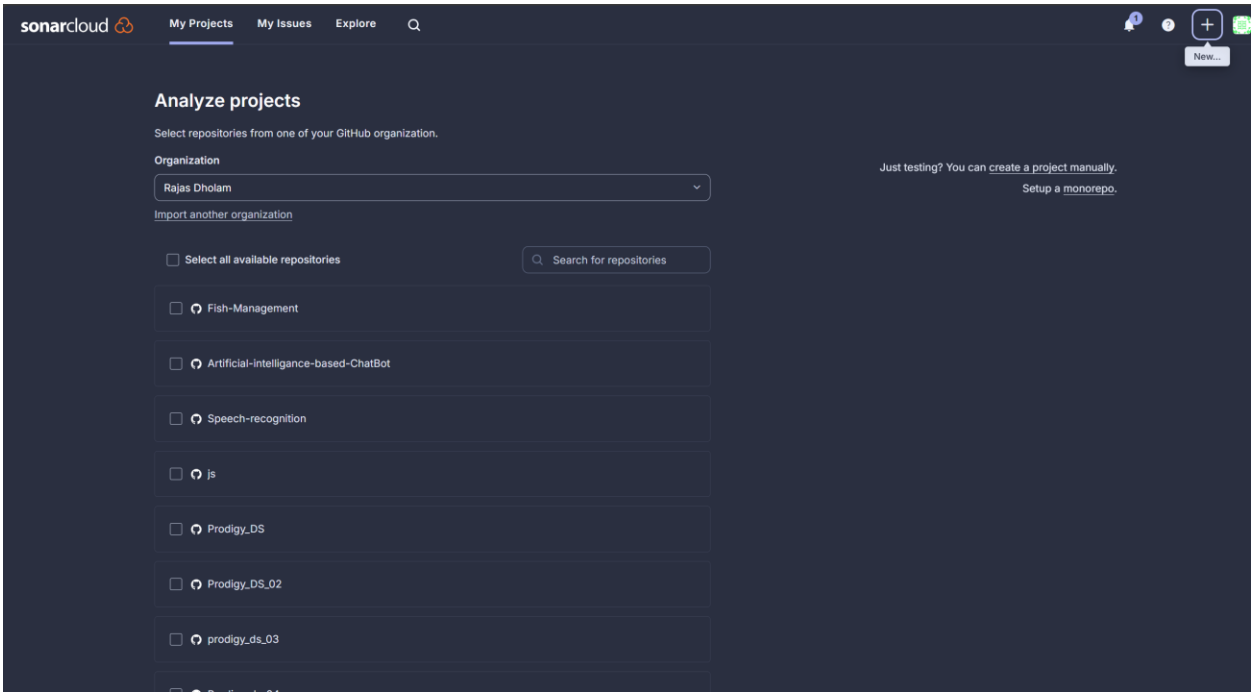
After logging into SonarCloud, go to the **Projects** section.

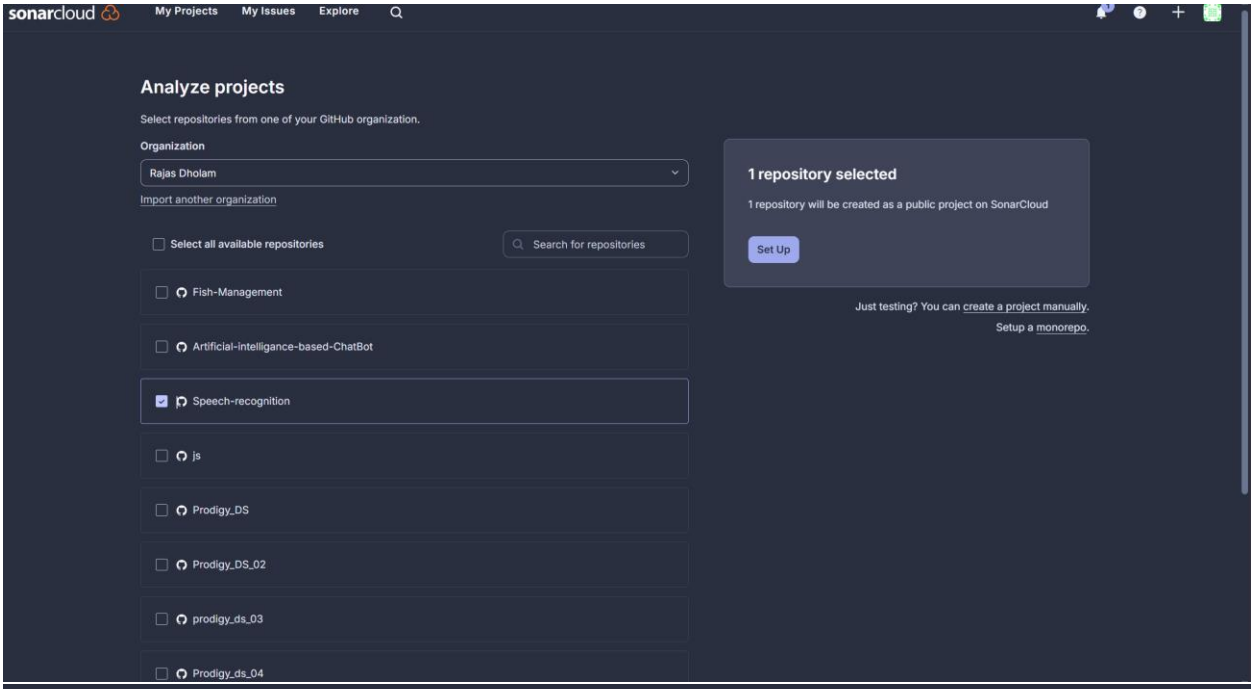
Click on **Analyze new project**.

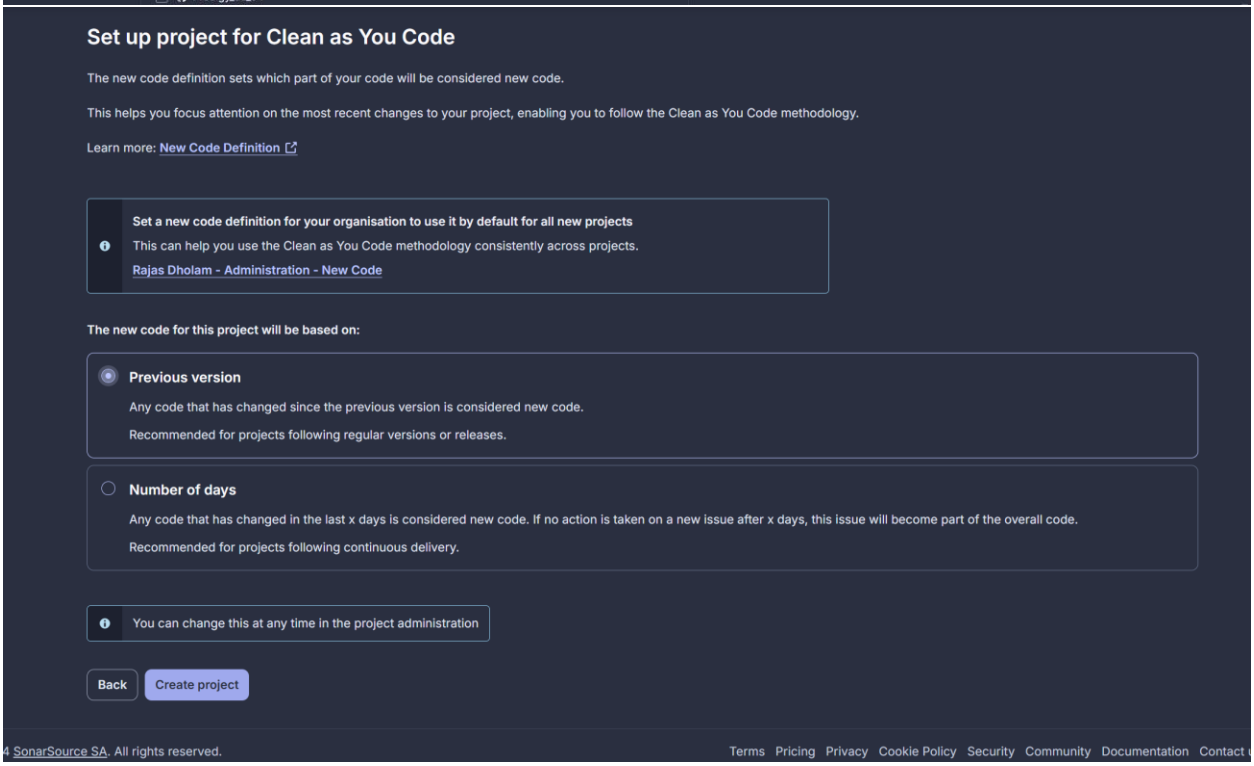
Choose the repository where your Python project is hosted.

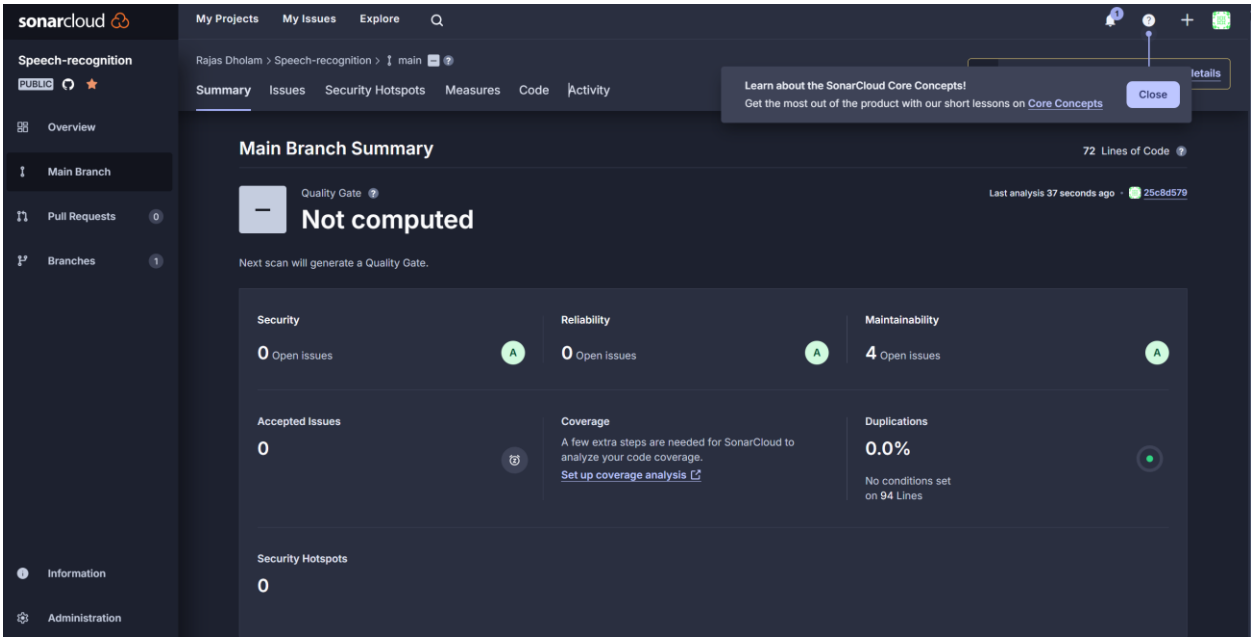
Select the repository and click **Set Up** to analyze the project.






sonarcloud
My Projects
My Issues
Explore
Analyze projects
Select repositories from one of your GitHub organization.
Organization
Rajas Dholam
Import another organization
Select all available repositories
Search for repositories
Fish-Management
Artificial-intelligance-based-ChatBot
Speech-recognition
js
Prodigy_DS
Prodigy_DS_02
prodigy_ds_03
Prodigy_ds_04
1 repository selected
1 repository will be created as a public project on SonarCloud
Set Up
Just testing? You can create a project manually.
Setup a monorepo.


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.
Rajas Dholam - 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 will become part of the overall code.
Recommended for projects following continuous delivery.
You can change this at any time in the project administration
Back
Create project
SonarSource SA. All rights reserved.
Terms
Pricing
Privacy
Cookie Policy
Security
Community
Documentation



Step 3) To analyze your Python project, you need to set up the SonarScanner in your project repository.

Option 1: Using SonarCloud GitHub Actions (Recommended for GitHub Projects)

1. **Add SonarCloud Configuration:**

In your repository, create a file .github/workflows/sonarcloud.yml with the following content

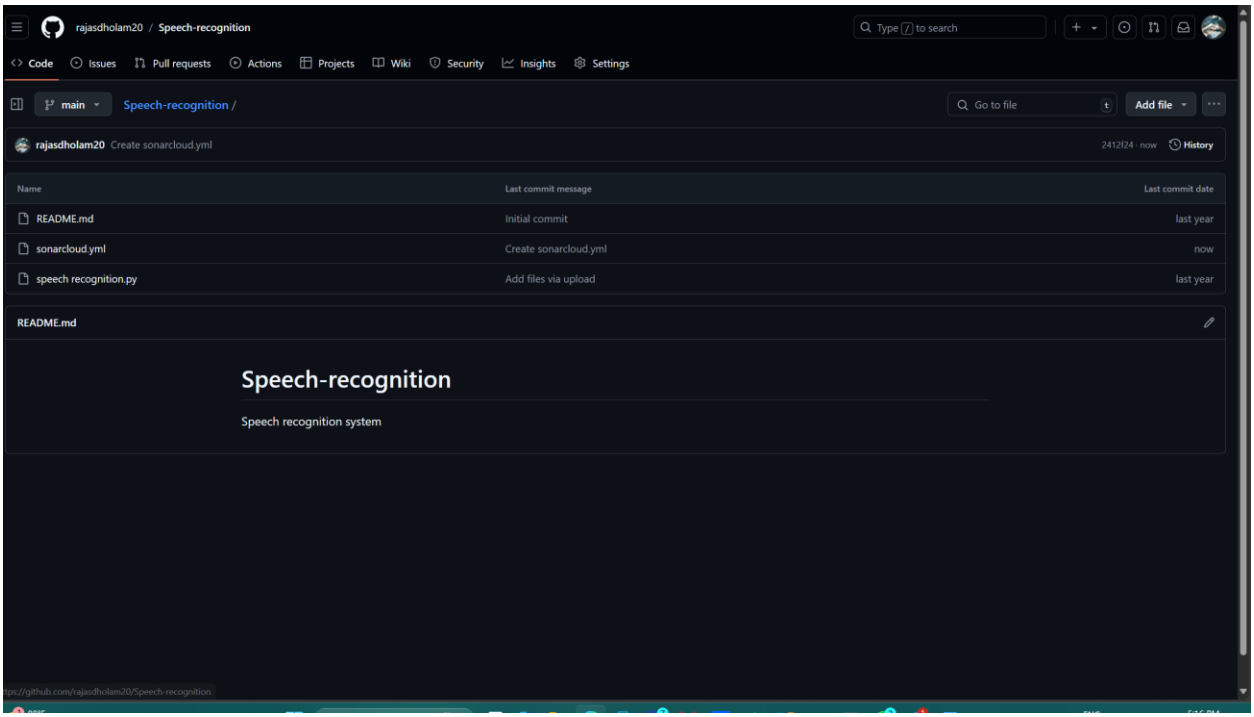
This yaml cloud add in the project

Speech-recognition / Name your file... in main

Edit Preview Code 55% faster with GitHub Copilot

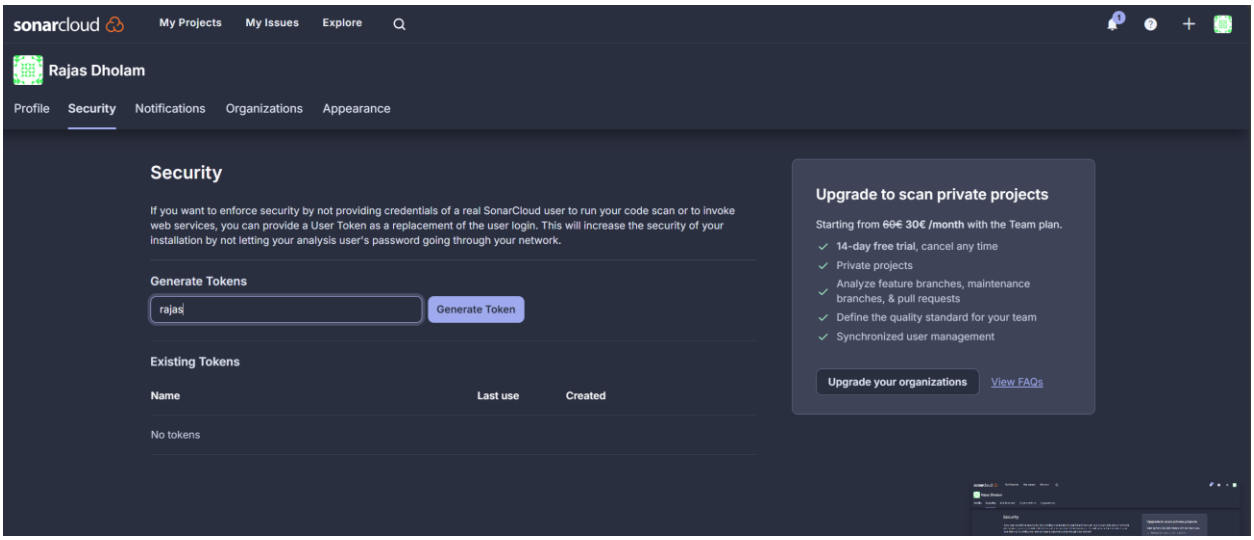
```yaml
name: SonarCloud Scan

on:
  push:
    branches:
      - master

jobs:
  sonarcloud:
    runs-on: ubuntu-latest
    steps:
      - name: Checkout repository
        uses: actions/checkout@v2

      - name: Set up Python
        uses: actions/setup-python@v2
        with:
          python-version: '3.x'

      - name: Install dependencies
        run: |
          python -m pip install --upgrade pip
          pip install -r requirements.txt

      - name: SonarCloud Scan
        uses: sonarsource/sonarcloud-github-action@v1.9
        env:
          SONAR_TOKEN: ${{ secrets.SONAR_TOKEN }}
        with:
          projectBaseDir: .
```

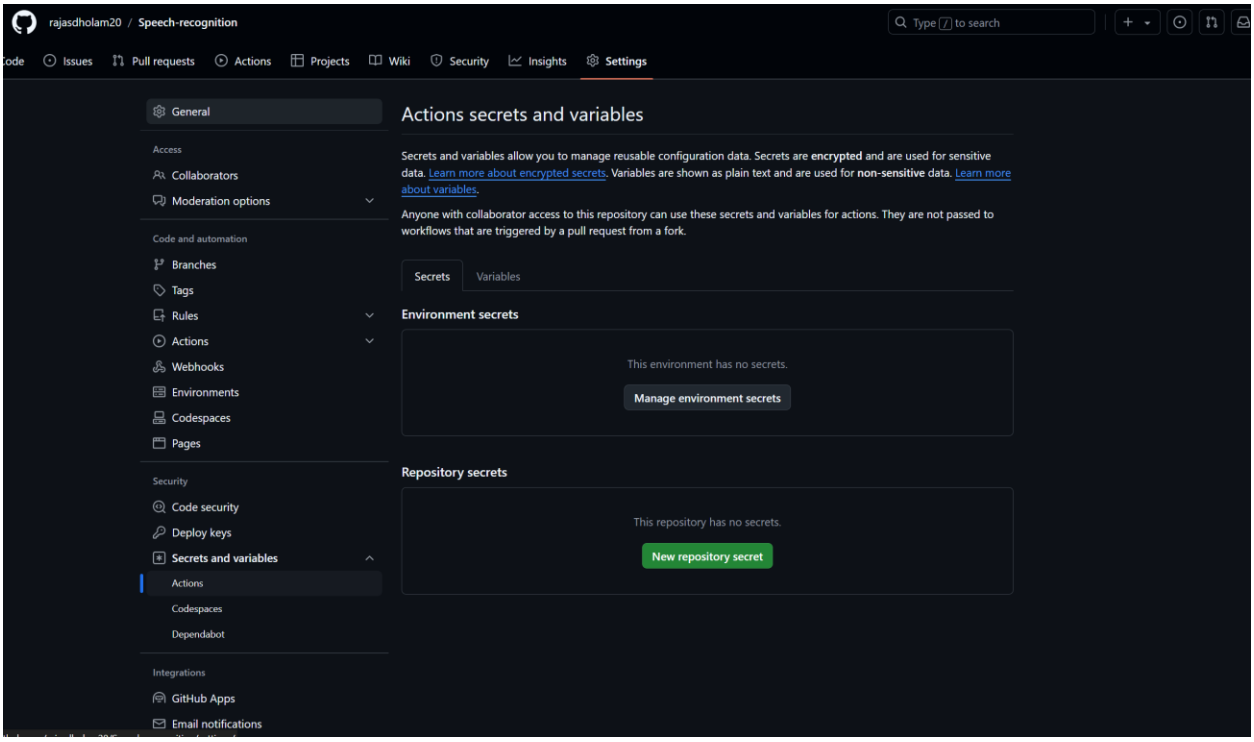
Use Control + Shift + m to toggle the tab key moving focus. Alternatively, use esc then tab to move to the next interactive element on the page.

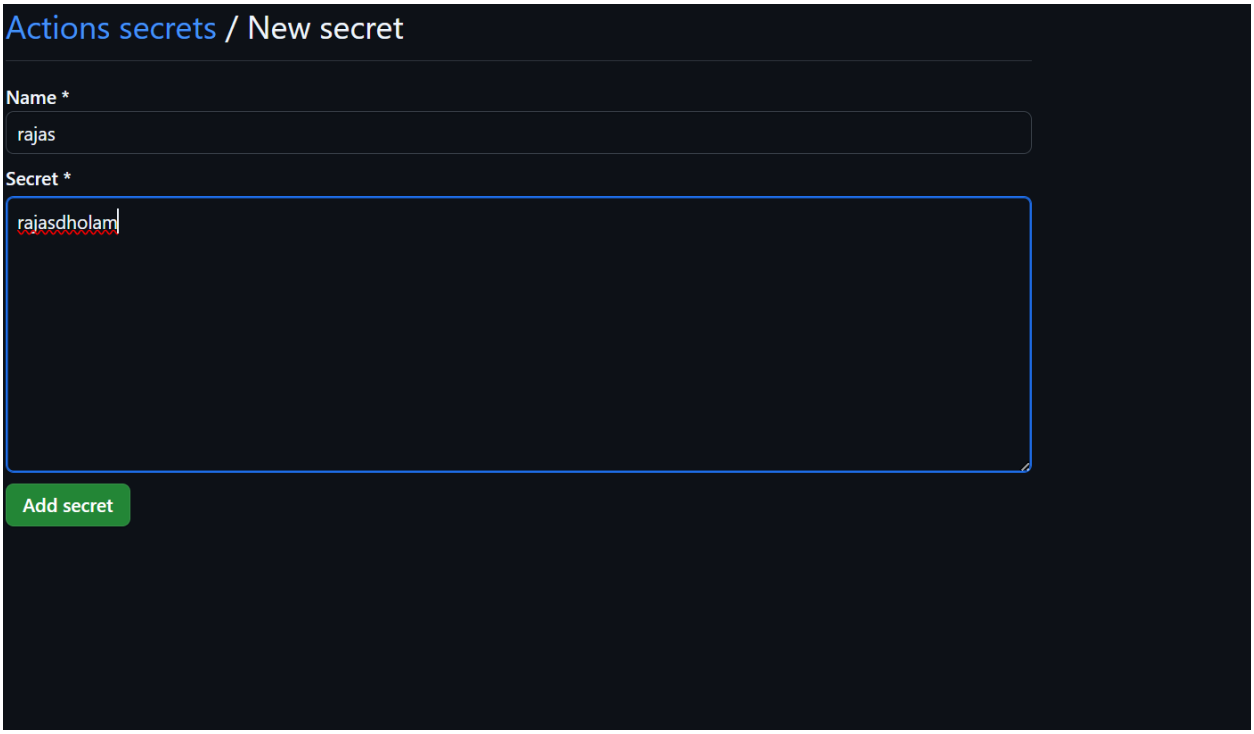


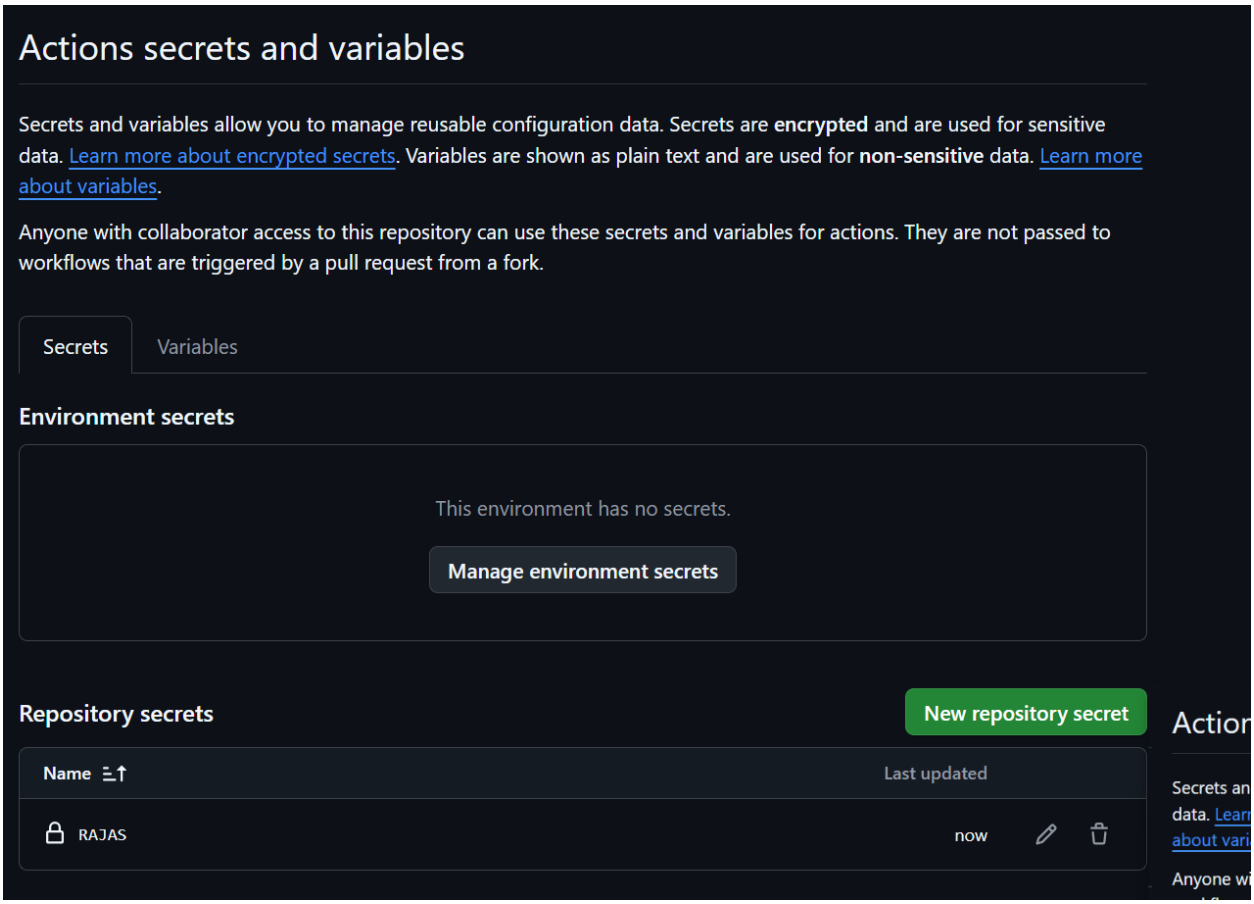
Step 4) Generate a SonarCloud Token:

- Go to **SonarCloud > My Account > Security**.
- Click **Generate Token** and copy the token.
- Add this token as a secret in your GitHub repository:
    - Go to **Repository > Settings > Secrets > Actions > New repository secret**.
    - Name the secret SONAR_TOKEN and paste the token.



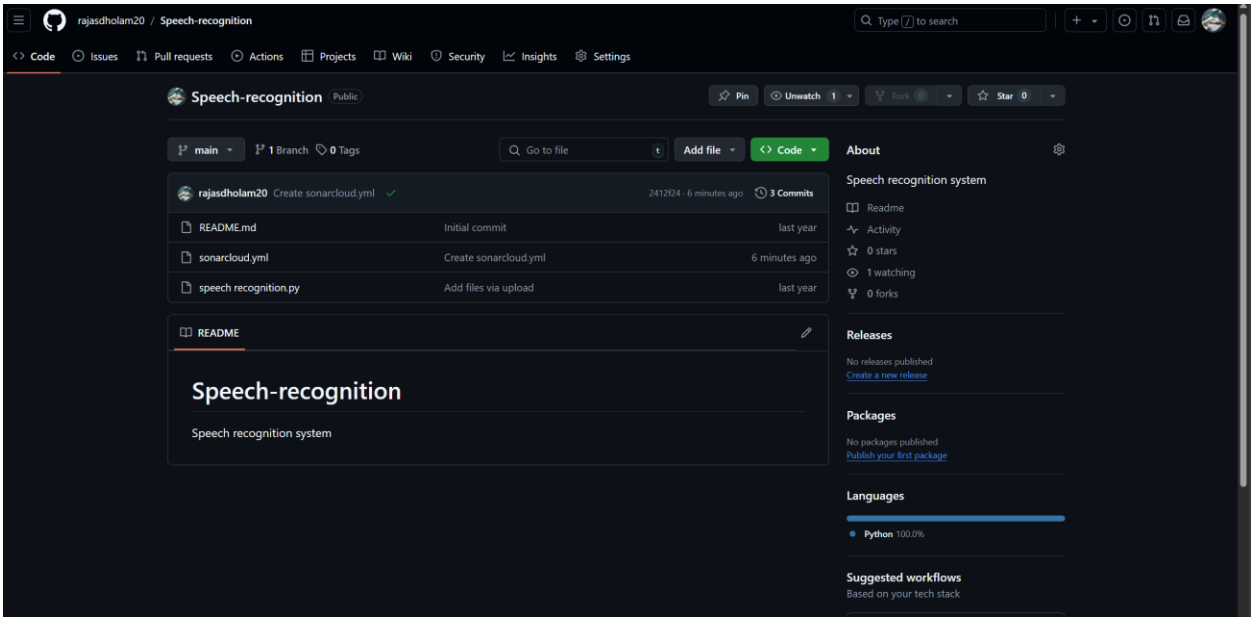



Actions secrets / New secret
Name *
rajas
Secret *
rajasdholam
Add secret


Actions secrets and variables
Secrets and variables allow you to manage reusable configuration data. Secrets are encrypted and are used for sensitive data. Learn more about encrypted secrets. Variables are shown as plain text and are used for non-sensitive data. Learn more about variables.
Anyone with collaborator access to this repository can use these secrets and variables for actions. They are not passed to workflows that are triggered by a pull request from a fork.
Secrets
Variables
Environment secrets
This environment has no secrets.
Manage environment secrets
Repository secrets
New repository secret
Name
Last updated
RAJAS
now

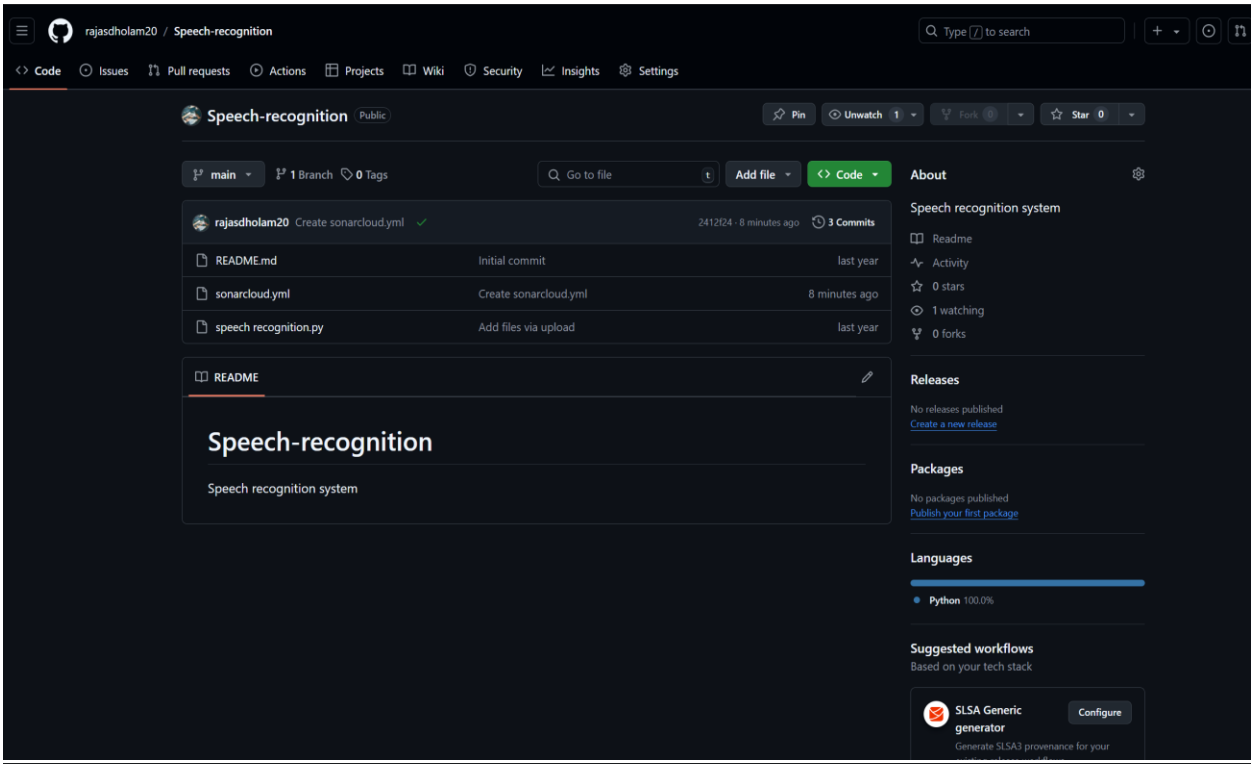
Step 5) **Push Your Changes to GitHub**:

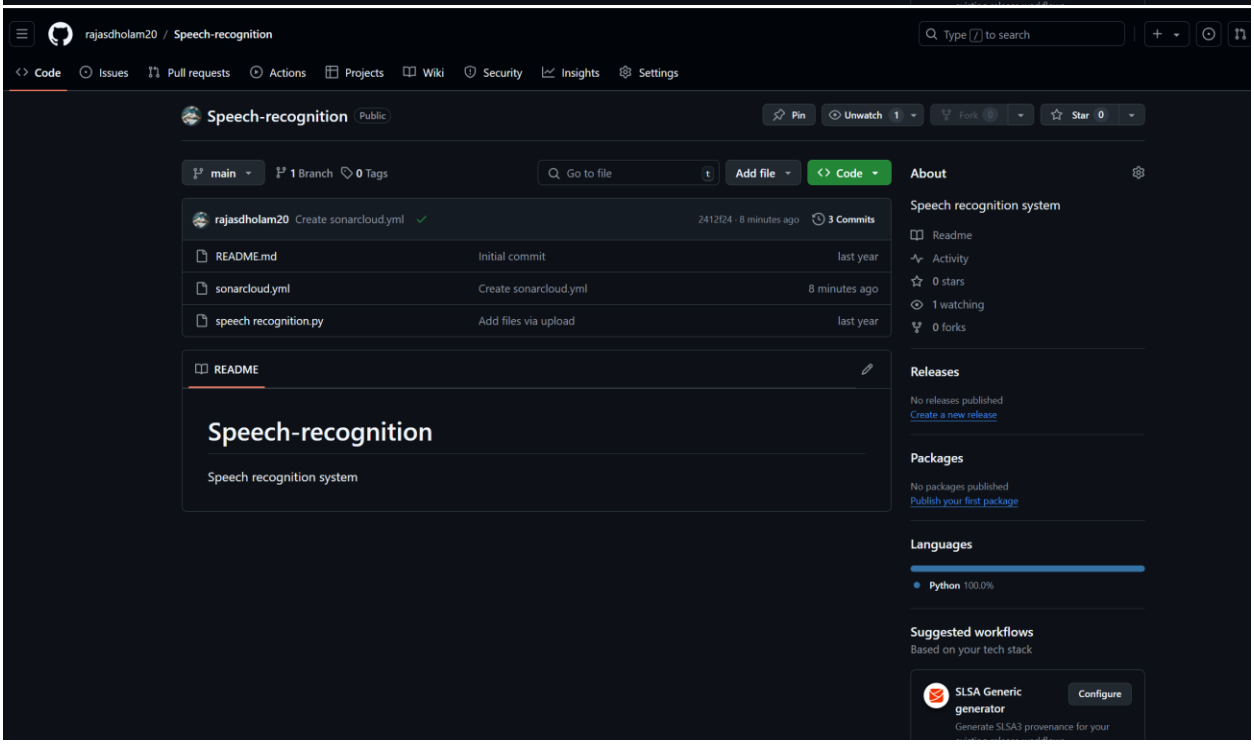
Once you push this configuration to your repository, GitHub Actions will run and integrate SonarCloud for code quality analysis.



Step 6) Fix Issues and Re-Analyze

1. I Review the issues SonarCloud detected code small and bugs
2. I Fix these issues in code.
3. And lastly Push the changes to your repository, and SonarCloud will automatically re-run the analysis if GitHub Actions is configured.


rajasdholam20 / Speech-recognition
Type / to search
Code
Issues
Pull requests
Actions
Projects
Wiki
Security
Insights
Settings
Speech-recognition
Public
Pin
Unwatch 1
Fork 0
Star 0
main
1 Branch
0 Tags
Go to file
t
Add file
Code
About
Speech recognition system
rajasdholam20 Create sonarcloud.yml
2412f24 · 8 minutes ago
3 Commits
README.md
Initial commit
last year
sonarcloud.yml
Create sonarcloud.yml
8 minutes ago
speech recognition.py
Add files via upload
last year
README
Speech-recognition
Speech recognition system
Readme
Activity
0 stars
1 watching
0 forks
Releases
No releases published
Create a new release
Packages
No packages published
Publish your first package
Languages
Python 100.0%
Suggested workflows
Based on your tech stack
SLSA Generic generator
Configure
Generate SLSA3 provenance for your


rajasdholam20 / Speech-recognition
Type / to search
Code
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Pull requests
Actions
Projects
Wiki
Security
Insights
Settings
Speech-recognition
Public
Pin
Unwatch 1
Fork 0
Star 0
main
1 Branch
0 Tags
Go to file
t
Add file
Code
About
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3 Commits
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speech recognition.py
Add files via upload
last year
README
Speech-recognition
Speech recognition system
Readme
Activity
0 stars
1 watching
0 forks
Releases
No releases published
Create a new release
Packages
No packages published
Publish your first package
Languages
Python 100.0%
Suggested workflows
Based on your tech stack
SLSA Generic generator
Configure
Generate SLSA3 provenance for your