

Resource:

- <https://en.wikipedia.org/wiki/SonarQube>
- Valaxy Technologies

Sonarqube:

- SonarQube is a platform for analyzing software for bugs, vulnerabilities, and code smells.
- In addition to performing a variety of static analysis checks on your source, it presents the results in the form of rich reports that make it easy for you to improve your application's security and stability.
- It is an open-source platform developed by SonarSource.

Why we need Sonarqube..?

- Sonarqube improves productivity by enabling development teams to identify and muzzle redundancy and duplication of code.
- Sonarqube makes it easier for team members to decrease application size, code complexity, time and cost of maintenance and make code easier to read and understand.
- In terms of CyberSecurity it ensure source code quality and application security by identifying and rectifying code duplications and potential bugs.

Installation:

- For using Sonarqube you must install JDK 11 or later version.
- From Official website of Sonarqube you download the zip file of Sonarqube
- Or by using the below link you can able to download Sonarqube.

<https://www.sonarsource.com/products/sonarqube/downloads/>

The screenshot shows the SonarQube 9.9 LTS download page. The header includes the SonarQube logo and navigation links: Deployment, What's New, Roadmap, Documentation, and Download. A 'START FREE TRIAL' button is also present. The main content area features the text 'FEBRUARY 2023' and 'SonarQube 9.9 LTS', followed by a description of the Long Term Support version. A 'Download SonarQube 9.9.3 LTS' section includes a dropdown menu for 'Version' (set to 'Community Edition') and a 'DOWNLOAD' button. A notification bubble at the bottom right says 'Hey! Thanks for your interest in SonarQube. What are you looking for today?'. The footer contains links for 'SEE FEATURES', 'DOCUMENTATION', 'RELEASE NOTES', 'UPGRADE GUIDE', and 'REQUIREMENTS'. The URL bar at the bottom shows the page address: <https://www.sonarsource.com/products/sonarqube/downloads/>.

- After downloading the zip file unzip the file and extract the things in it.
- Move to the Sonarqube extracted directory, there we can find the bin, config and more directories
- Move to config directory

```

yashachari04loveskali@KaliLinux: ~/Desktop/SonarQube/sonarqube/conf
File Actions Edit View Help
(yashachari04loveskali@KaliLinux)~[/Desktop/SonarQube/sonarqube]
$ cd conf
(yashachari04loveskali@KaliLinux)~[/Desktop/SonarQube/sonarqube/conf]
$ ls
sonar.properties
(yashachari04loveskali@KaliLinux)~[/Desktop/SonarQube/sonarqube/conf]
$ more sonar.properties
#
# IMPORTANT:
# This file will *not* be reloaded upon hitting the "Restart" button in the UI, or using the
# api/system/restart endpoint.
# In order for any change made to this file to be taken into account, you must perform a full
# restart of the main SonarQube service.
#
#
# Property values can:
# - be overridden by environment variables. The name of the corresponding environment variable is the
#   upper-cased name of the property where all the dot ('.') and dash ('-') characters are replaced by
#   underscores ('_'). For example, to override 'sonar.web.systemPasscode' use 'SONAR_WEB_SYSTEMPASSCODE'.
# - be encrypted. See https://docs.sonarqube.org/latest/instance-administration/security/#settings-encryption
#
#
# DATABASE
#
# IMPORTANT:
# - The embedded H2 database is used by default. It is recommended for tests but not for
#   production use. Supported databases are Oracle, PostgreSQL and Microsoft SQLServer.
# - Changes to database connection URL (sonar.jdbc.url) can affect SonarSource licensed products.
#
# User credentials.
# Permissions to create tables, indices and triggers must be granted to JDBC user.
# The schema must be created first.
#sonar.jdbc.username=
#sonar.jdbc.password=
#----- Embedded Database (default)

```

- Here in Sonar.properties file we can find all the sonar properties
- Move to bin folder, in bin folder move to the respective systems directory and run the .sh file
- For running the Sonarqube all the files and directories must not follow the root user as root user not able to run the Sonarqube.
- For getting the permissions to the other user we can use the following command.

chown -R otherusername:otherusername /opt/sonardirectory

- We can start the sonarqube by running the .sh file using following command

./sonar.sh start

- We can also check the status of the sonarqube using the following command

./sonar.sh status

- If any errors occurs we can check the errors in logs folder as it records all the activities of the Sonarqube.
- For checking the which ports on Sonarqube is running we can use the following command.

netstat -tuplne

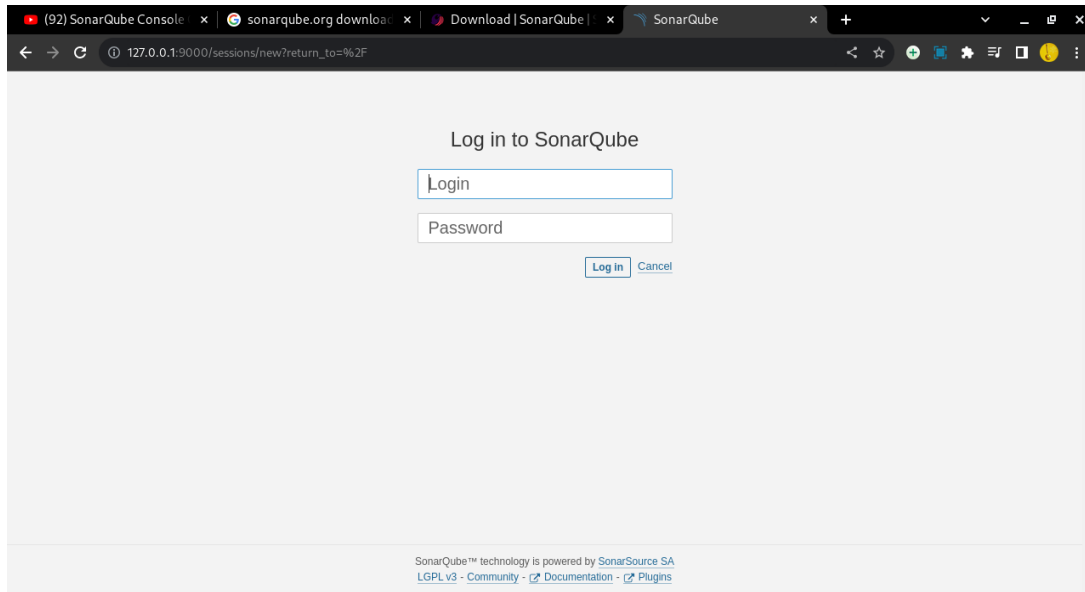
- There we can see that the web port of the sonarqube is open and running.

Web port of the Sonarqube in :::9000.

- Using the your system IP address and web port of the sonarqube we can go the sonar web login.

User_IP_address:9000 for getting into the sonar web login

Sonarqube Web Login view:



- The default login credential of the Sonarqube is admin
User name: admin
Password: admin
- After login completed it asks to create your own password set your own password and login
We can redirect to the web of Sonarqube.

Sonar Web View:

