



PARSHVANATH CHARITABLE TRUST'S  
**A. P. SHAH INSTITUTE OF TECHNOLOGY**  
Department of Information Technology  
(NBA Accredited)



## Department of Information Technology

**Academic Year: 2025-26**

**Semester: V**

**Class / Branch: TEIT/Div C**

**Subject: Advance DevOps Lab**

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**Date of Performance: 9/09/25**

**Date of Submission: 9/09/25**

## Experiment No. 7

**Aim: To understand Static Analysis SAST process and learn to integrate Jenkins SAST to SonarQube/GitLab.**

**squ\_8d6bf52941f5b5d0744268125b94884e14006b90**

```
Started by user shweta
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/sonarQube
[Pipeline] {
[Pipeline] stage
[Pipeline] { (cloning from GIT)
[Pipeline] git
The recommended git tool is: NONE
Warning: CredentialId "GIT_REPO" could not be found.
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/sonarQube/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Shweta-W/jenkins-sonarqube.git # timeout=10
Fetching upstream changes from https://github.com/Shweta-W/jenkins-sonarqube.git
> git --version # timeout=10
> git --version # 'git version 2.17.1'
> git fetch --tags --progress -- https://github.com/Shweta-W/jenkins-sonarqube.git +refs/heads/*:refs/remotes/origin/* #
timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision d54bf0c41e1418c59fba17aa41095f9f166976c3 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f d54bf0c41e1418c59fba17aa41095f9f166976c3 # timeout=10
> git branch -a -v --no-abbrev # timeout=10
> git checkout -b main d54bf0c41e1418c59fba17aa41095f9f166976c3 # timeout=10
Commit message: "Create README.md"
First time build. Skipping changelog.
[Pipeline] }
[Pipeline] // stage
```

← → ↻ localhost:8080/job/sonarQube/ ☆ ⬇ 👤 New Chrome available ⋮

Jenkins / sonarQube 🔍 ⚙️ 👤

**Status** sonarQube Edit description

</> Changes  
▶ Build Now  
⚙️ Configure  
🗑 Delete Pipeline  
🔄 GitHub  
📁 Stages  
✎ Rename  
? Pipeline Syntax

**sonarQube**  
Hello pipeline job  
**Permalinks**

**Builds** ⋮ 🗒

No builds

REST API Jenkins 2.516.2

← → ↻ localhost:8080/view/all/newJob ☆ ⬇ 👤 New Chrome available ⋮


Jenkins / All / New Item 🔍 ⚙️ 👤


**New Item**


Enter an item name


sonarQube


Select an item type

 **Freestyle project**  
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.

 **Pipeline**  
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

 **Multi-configuration project**  
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

 **Folder**  
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.

 **Multibranch Pipeline**  
Creates a set of Pipeline projects according to detected branches in one SCM repository.

OK

localhost:8080/manage/configureTools/

Jenkins / Manage Jenkins / Tools

### SonarQube Scanner

Name  
sonarQube

☒ Install automatically ?

#### Install from Maven Central

Version  
SonarQube Scanner 4.6.2.2472

Add Installer

Add SonarQube Scanner

### Ant installations

Add Ant

Save Apply

localhost:8080/manage/configure

Jenkins / Manage Jenkins / System

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

☐ Environment variables

### SonarQube installations

List of SonarQube installations

Name  
sonarQube

Server URL  
Default is http://localhost:9000  
http://localhost:9000

Server authentication token  
SonarQube authentication token. Mandatory when anonymous access is disabled.  
- none -

+ Add

Advanced

Jenkins / Manage Jenkins / Plugins

Plugins

Updates

Available plugins

Installed plugins

Advanced settings

Download progress

sona

Install

Install	Name	Released	Health
<input type="checkbox"/>	<div>Personalization for Blue Ocean 1.27.21</div> <div>External Site/Tool Integrations User Interface</div> <div>Blue Ocean Personalization</div>	2 mo 24 days ago	97
<input checked="" type="checkbox"/>	<div>SonarQube Scanner 2.18</div> <div>External Site/Tool Integrations Build Reports</div> <div>This plugin allows an easy integration of <a href="#">SonarQube</a>, the open source platform for Continuous Inspection of code quality.</div>	7 mo 13 days ago	84
<input type="checkbox"/>	<div>Sonar Quality Gates 352.vdcdb_d7994fb_6</div> <div>Library plugins (for use by other plugins) analysis Other Post-Build Actions</div> <div>Fails the build whenever the Quality Gates criteria in the Sonar 5.6+ analysis aren't met (the project Quality Gates status is different than "Passed")</div>	6 mo 18 days ago	100
<input type="checkbox"/>	<div>Quality Gates 2.5</div> <div>Fails the build whenever the Quality Gates criteria in the Sonar analysis aren't met (the project Quality Gates status is different than "Passed")</div> <div>Warning: This plugin version may not be safe to use. Please review the following security notices:<ul style="list-style-type: none"><li>Credentials transmitted in plain text</li></ul></div>	9 yr 3 mo ago	42
<input type="checkbox"/>	<div>Sonargraph integration 5.0.2</div>		

Embedded database should be used for evaluation purposes only. It doesn't support scaling, upgrading to a new SonarQube Server version, or migration to another database engine. [Learn more](#)

SonarQube community

Projects Issues Rules Quality Profiles Quality Gates Administration More

Search Help Admin

A Administrator

Profile Security Notifications Projects

Security

If you want to enforce security by not providing credentials of a real SonarQube 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

Namejenkin

TypeUser Token

Expires in30 days

Generate


Name	Type	Project	Last use	Created	Expiration
No tokens					

Enter a new password

Old Password

← → ↻ localhost:9000/projects/create ☆ ⬇ 👤 New Chrome available ⋮

⚠ Embedded database should be used for evaluation purposes only. It doesn't support scaling, upgrading to a new SonarQube Server version, or migration to another database engine. [Learn more](#)

 **SonarQube** community

Projects Issues Rules Quality Profiles Quality Gates Administration More ▾


🔍 ⓘ Ⓐ


## How do you want to create your project?


Do you want to benefit from all of SonarQube Community Build's features (like repository import and Pull Request decoration)?


### Create your project from your favorite DevOps platform.


First, you need to set up a DevOps platform configuration.

 Import from Azure DevOps Setup

 Import from Bitbucket Cloud Setup


 Import from Bitbucket Server Setup


 Import from GitHub Setup

 Import from GitLab Setup

Are you just testing or have an advanced use-case?

[Create a local project](#)

  
+



Get the most out of SonarQube Community Build!  
Take advantage of the whole ecosystem by using SonarQube for IDE, a free IDE plugin that helps you find and fix issues earlier in your workflow. Connect SonarQube for IDE to SonarQube Community Build to sync rule sets and issue states.


[Learn More](#)


Dismiss

SonarQube™ technology is powered by [SonarSource SA](#)

Community Build - v25.9.0.112764 - NQR MODE

← → ↻ localhost:9000/sessions/new?return\_to=%2F ☆ ⬇ 👤 New Chrome available ⋮





### Log in to SonarQube

Login \*

Password \*

[Go back](#) [Log in](#)

SonarQube™ technology is powered by [SonarSource SA](#)

[SonarQube Server Terms & Conditions](#) [Community](#) [Documentation](#) [Plugins](#)

```
apsit@apsit-HP-280-Pro-G6-Microtower-PC:~$ sudo docker run -d -p 9000:9000 sonarqube
Unable to find image 'sonarqube:latest' locally
latest: Pulling from library/sonarqube
76249c7cd503: Pull complete
f706b5aed643: Pull complete
929e753abe01: Pull complete
9eb9a8044837: Pull complete
5d5a1fad7028: Pull complete
47f8c849269d: Downloading 357.8MB/853.9MB
e869ea04c9ac: Download complete
4f4fb700ef54: Download complete
```

← → ↺ ↻ localhost:8080

New Chrome available

# Jenkins

+ New Item

Build History

**Build Queue** ▾  
No builds in the queue.

**Build Executor Status** 0/2 ▾

## Welcome to Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

### Start building your software project

Create a job +

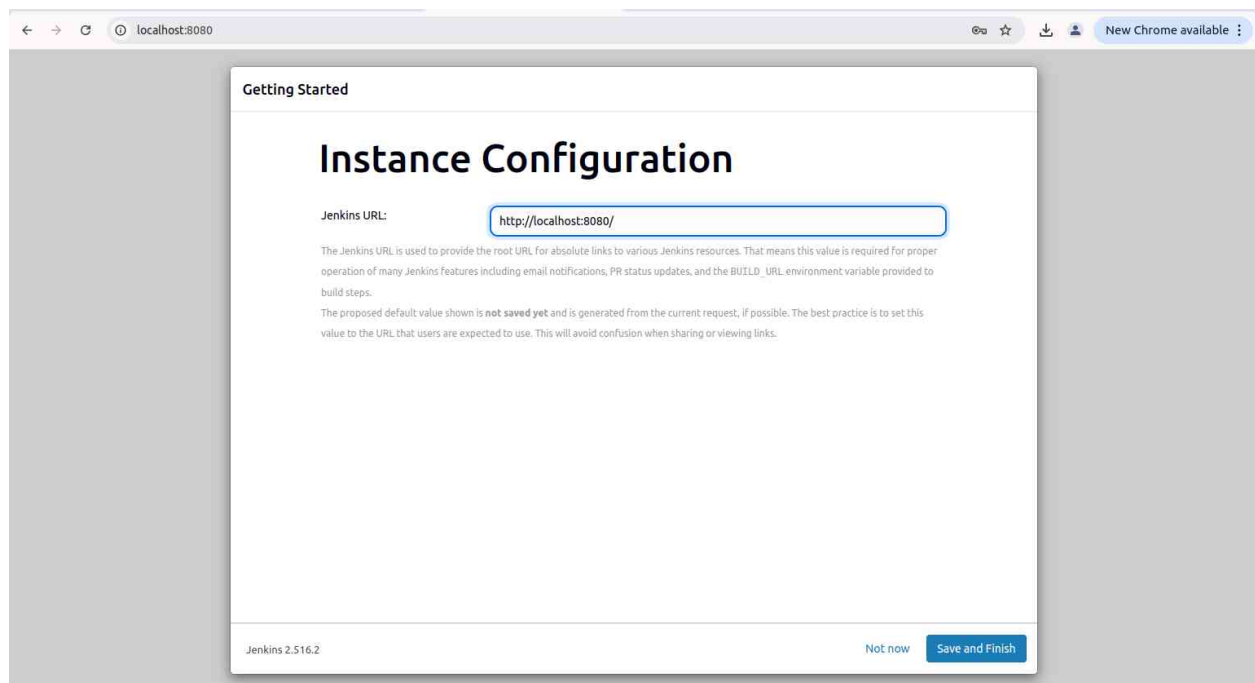
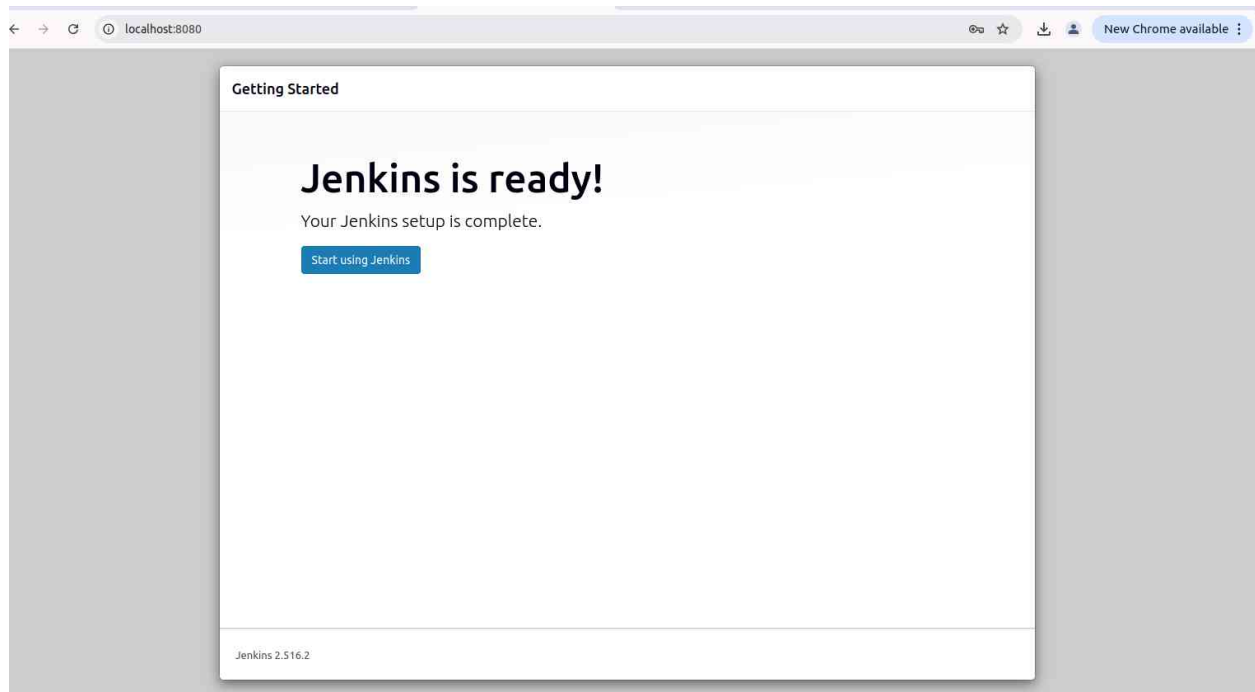
### Set up a distributed build

Set up an agent 🖥️

Configure a cloud ☁️

Learn more about distributed builds ?

REST API Jenkins 2.516.2



← → ↻ localhost:8080 New Chrome available

## Getting Started

# Create First Admin User

**Username**  
shweta

**Password**  
\*\*\*\*\*

**Confirm password**  
\*\*\*\*\*

**Full name**  
shweta

**E-mail address**  
23104183@apsit.edu.in

Jenkins 2.516.2 [Skip and continue as admin](#) [Save and Continue](#)

← → ↻ localhost:8080 New Chrome available

## Getting Started

✓ Folders	✓ OWASP Markup Formatter	✓ Build Timeout	✓ Credentials Binding
✓ Timestampers	✓ Workspace Cleanup	✓ Ant	✓ Gradle
✓ Pipeline	⌚ GitHub Branch Source	⌚ Pipeline: GitHub Groovy Libraries	⌚ Pipeline Graph View
⌚ Git	⌚ SSH Build Agents	⌚ Matrix Authorization Strategy	⌚ LDAP
⌚ Email Extension	✓ Mailer	⌚ Dark Theme	

Jenkins 2.516.2

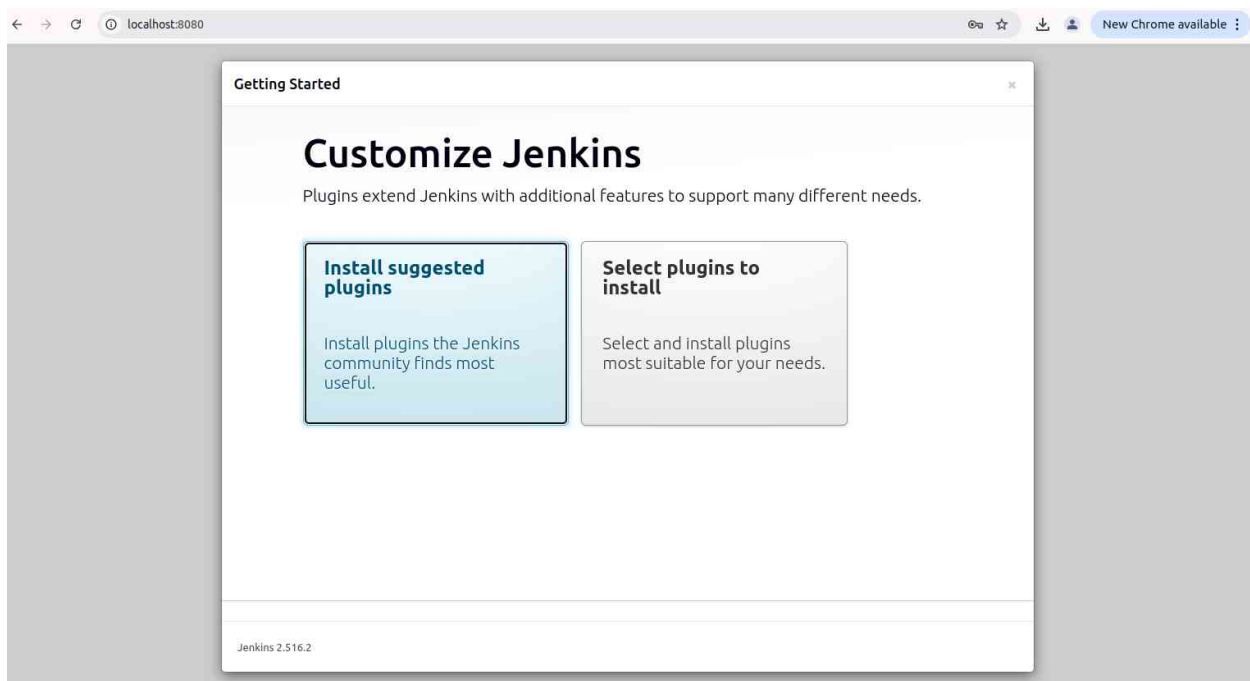
- \*\* Pipeline: Nodes and Processes
- \*\* Pipeline: Build Step
- \*\* Pipeline: SCM Step
- \*\* Pipeline: Groovy
- \*\* Pipeline: Groovy Libraries
- \*\* Joda Time API
- \*\* Pipeline: Model API
- \*\* Pipeline: Stage Step
- \*\* Pipeline: Declarative
- \*\* Extension Points API
- \*\* Jakarta Activation API
- \*\* Jakarta Mail API
- \*\* Instance Identity
- Mailer**
- \*\* Branch API
- \*\* Pipeline: Multibranch
- \*\* Pipeline: Stage Tags
- Metadata
- \*\* Pipeline: Input Step
- \*\* Pipeline: Basic Steps
- \*\* Pipeline: Declarative
- Pipeline**
- \*\* Java JSON Web Token (JWT)
- \*\* GitHub API
- \*\* Mina SSHD API :: Common
- \*\* Mina SSHD API :: Core
- \*\* - required dependency



```

File Edit View Search Terminal Help
apsit@apsit-HP-280-Pro-G6-Microtower-PC:~$ wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo apt-key add -
[sudo] password for apsit:
OK
apsit@apsit-HP-280-Pro-G6-Microtower-PC:~$ sudo sh -c 'echo deb http://pkg.jenkins.io/debian-stable binary/ > /etc/apt/sources.list.d/jenkins.list'
apsit@apsit-HP-280-Pro-G6-Microtower-PC:~$ sudo apt update
Hit:1 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:2 http://ppa.launchpad.net/swi-prolog/stable/ubuntu bionic InRelease
Ign:3 https://pkg.jenkins.io/debian-stable binary/ InRelease
Hit:4 https://pkg.jenkins.io/debian-stable binary/ Release
Hit:6 http://in.archive.ubuntu.com/ubuntu bionic InRelease
Hit:7 http://archive.ubuntu.com/ubuntu bionic-backports InRelease
Hit:8 http://security.ubuntu.com/ubuntu bionic-security InRelease
Hit:9 http://in.archive.ubuntu.com/ubuntu bionic-updates InRelease
Hit:10 http://in.archive.ubuntu.com/ubuntu bionic-backports InRelease
Hit:11 https://download.docker.com/linux/ubuntu bionic InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
5 packages can be upgraded. Run 'apt list --upgradable' to see them.
apsit@apsit-HP-280-Pro-G6-Microtower-PC:~$ sudo apt install jenkins
Reading package lists... Done
Building dependency tree
Reading state information... Done
jenkins is already the newest version (2.516.2).
The following packages were automatically installed and are no longer required:
  gir1.2-goa-1.0 gir1.2-snapd-1 linux-hwe-5.4-headers-5.4.0-126 linux-hwe-5.4-headers-5.4.0-128
  linux-hwe-5.4-headers-5.4.0-136
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 5 not upgraded.

```



```
apsit@apsit-HP-280-Pro-G6-Microtower-PC:~$ sudo cat /var/lib/jenkins/secrets/initialAdminPassword
e46f4662527141ffb9442e8544726580
apsit@apsit-HP-280-Pro-G6-Microtower-PC:~$
```

