

NEXUS SERVER

1. We create a nexus server in ubuntu.

 nexus  i-0dea1ce9e4557c10c  Running  t2.medium  2/2 checks passed  View alarms +  us-east-1

2. After that connect to nexus server.

3. Install the java

```
aws
Services
Search [Alt+S]
Resource Groups & Tag Editor
root@ip-172-31-81-199:~# apt update -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [631 kB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [152 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [120 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [310 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [434 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [83.4 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [209 B]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [21.1 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:17 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [461 kB]
Get:18 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [97.7 kB]
Get:19 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [7172 B]
Get:20 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [51.9 kB]
Get:21 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [431 kB]
Get:22 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [83.1 kB]
Get:23 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
```

```
aws
Services
Search [Alt+S]
Resource Groups & Tag Editor
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [120 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [310 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [434 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [83.4 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [209 B]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [21.1 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:17 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [461 kB]
Get:18 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [97.7 kB]
Get:19 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [7172 B]
Get:20 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [51.9 kB]
Get:21 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [431 kB]
Get:22 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [83.1 kB]
Get:23 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:24 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 B]
Fetched 3263 kB in 3s (1022 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
14 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@ip-172-31-81-199:~#
```

```
root@ip-172-31-81-199:~# java -version
openjdk version "17.0.13" 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Ubuntu-2ubuntu124.04)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Ubuntu-2ubuntu124.04, mixed mode, sharing)
root@ip-172-31-81-199:~#
```

Java is available.

Create user

```
Resource Groups & Tag Editor
root@ip-172-31-81-199:~# adduser nexus1
info: Adding user 'nexus1' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group 'nexus1' (1002) ...
info: Adding new user 'nexus1' (1002) with group 'nexus1' (1002) ...
info: Creating home directory '/home/nexus1' ...
info: Copying files from '/etc/skel' ...
new password:
retype new password:
passwd: password updated successfully
changing the user information for nexus1
Enter the new value, or press ENTER for the default
Full Name []:
Room Number []:
Work Phone []:
Home Phone []:
Other []:
Is the information correct? [Y/n] yes
info: Adding new user 'nexus1' to supplemental / extra groups 'users' ...
info: Adding user 'nexus1' to group 'users' ...
root@ip-172-31-81-199:~# su - nexus1
```

Go to google then select nexus download copy the url

<https://download.sonatype.com/nexus/3/nexus-3.74.0-05-unix.tar.gz>.

```
aws Services Search [Alt+S] N. Virginia bharathk.chintha
Resource Groups & Tag Editor

** System restart required ***
last login: Tue Nov 12 13:44:27 2024 from 18.206.107.27
buntu@ip-172-31-81-199:~$ sudo su -
root@ip-172-31-81-199:~# su - nexus1
nexus1@ip-172-31-81-199:~$ wget https://download.sonatype.com/nexus/3/nexus-3.74.0-05-unix.tar.gz
-2024-11-12 14:04:45-- https://download.sonatype.com/nexus/3/nexus-3.74.0-05-unix.tar.gz
resolving download.sonatype.com (download.sonatype.com)... 54.193.118.127, 52.9.28.177
connecting to download.sonatype.com (download.sonatype.com)[54.193.118.127]:443... connected.
HTTP request sent, awaiting response... 302 Moved Temporarily
location: https://sonatype-download.global.ssl.fastly.net/repository/downloads-prod-group/3/nexus-3.74.0-05-unix.tar.gz [following]
-2024-11-12 14:04:45-- https://sonatype-download.global.ssl.fastly.net/repository/downloads-prod-group/3/nexus-3.74.0-05-unix.tar.gz
resolving sonatype-download.global.ssl.fastly.net (sonatype-download.global.ssl.fastly.net)... 146.75.37.194
connecting to sonatype-download.global.ssl.fastly.net (sonatype-download.global.ssl.fastly.net)[146.75.37.194]:443... connected.
HTTP request sent, awaiting response... 200 OK
length: 236629857 (226M) [application/x-gzip]
saving to: 'nexus-3.74.0-05-unix.tar.gz'

nexus-3.74.0-05-unix.tar.gz 100%[=====] 225.67M 25.5MB/s in 14s

-2024-11-12 14:04:59 (16.4 MB/s) - 'nexus-3.74.0-05-unix.tar.gz' saved [236629857/236629857]
nexus1@ip-172-31-81-199:~$
```

i-Odea1ce9e4557c10c (nexus)
PublicIPs: 44.203.192.247 PrivateIPs: 172.31.81.199

We have give “ll” command then it visible for tar file.

```
Resource Groups & Tag Editor
nexus1@ip-172-31-81-199:~$ ll
total 231108
-rwxr-x-- 2 nexus1 nexus1 4096 Nov 12 14:04 ./
-rwxr-xr-x 5 root root 4096 Nov 12 13:49 ../
-rw-r--r-- 1 nexus1 nexus1 220 Nov 12 13:49 .bash_logout
-rw-r--r-- 1 nexus1 nexus1 3771 Nov 12 13:49 .bashrc
-rw-r--r-- 1 nexus1 nexus1 807 Nov 12 13:49 .profile
-rw-rw-r-- 1 nexus1 nexus1 236629857 Nov 5 06:17 nexus-3.74.0-05-unix.tar.gz
nexus1@ip-172-31-81-199:~$
```

Next step, unzip the tar file we have use this command “tar -zxvf nexus-3.74.0-05-unix.tar.gz”

```
nexus1@ip-172-31-81-199:~$ tar -zxvf nexus-3.74.0-05-unix.tar.gz
nexus-3.74.0-05/.install4j/9d17dc87.lprop
nexus-3.74.0-05/.install4j/MessagesDefault
nexus-3.74.0-05/.install4j/build.uuid
nexus-3.74.0-05/.install4j/e4ada6b7.lprop
nexus-3.74.0-05/.install4j/i4j_extf_0_17islik.utf8
nexus-3.74.0-05/.install4j/i4j_extf_10_17islik_11g5ail.png
nexus-3.74.0-05/.install4j/i4j_extf_11_17islik_wtm4no.png
nexus-3.74.0-05/.install4j/i4j_extf_1_17islik.properties
nexus-3.74.0-05/.install4j/i4j_extf_2_17islik.html
nexus-3.74.0-05/.install4j/i4j_extf_3_17islik_iniwaxy.ico
nexus-3.74.0-05/.install4j/i4j_extf_4_17islik_lm92816.png
nexus-3.74.0-05/.install4j/i4j_extf_5_17islik_10358jn.png
nexus-3.74.0-05/.install4j/i4j_extf_6_17islik_lgiwykh.png
nexus-3.74.0-05/.install4j/i4j_extf_7_17islik_18gg8kx.png
nexus-3.74.0-05/.install4j/i4j_extf_7_17islik_18gg8kx82x.png
nexus-3.74.0-05/.install4j/i4j_extf_8_17islik_11g5ail.png
nexus-3.74.0-05/.install4j/i4j_extf_9_17islik_fykotp.png
nexus-3.74.0-05/.install4j/i4jparams.conf
nexus-3.74.0-05/.install4j/i4jruntime.jar
nexus-3.74.0-05/NOTICE.txt
nexus-3.74.0-05/OSS-LICENSE.txt
nexus-3.74.0-05/PRO-LICENSE.txt
nexus-3.74.0-05/bin/contrib/karaf-service-template.conf
```

```
aws Services Search [Alt+S] N. Virginia bharathk.chintha
Resource Groups & Tag Editor
nexus-3.74.0-05/system/org/sonatype/nexus/plugins/nexus-repository-apt/3.74.0-05/nexus-repository-apt-3.74.0-05.jar
nexus-3.74.0-05/system/org/sonatype/nexus/plugins/nexus-repository-httpbridge/3.74.0-05/nexus-repository-httpbridge-3.74.0-05.jar
nexus-3.74.0-05/system/org/sonatype/nexus/plugins/nexus-repository-maven/3.74.0-05/nexus-repository-maven-3.74.0-05.jar
nexus-3.74.0-05/system/org/sonatype/nexus/plugins/nexus-repository-raw/3.74.0-05/nexus-repository-raw-3.74.0-05.jar
nexus-3.74.0-05/system/org/sonatype/nexus/plugins/nexus-script-plugin/3.74.0-05/nexus-script-plugin-3.74.0-05.jar
nexus-3.74.0-05/system/org/sonatype/nexus/plugins/nexus-ssl-plugin/3.74.0-05/nexus-ssl-plugin-3.74.0-05.jar
nexus-3.74.0-05/system/org/sonatype/nexus/plugins/nexus-task-log-cleanup/3.74.0-05/nexus-task-log-cleanup-3.74.0-05.jar
nexus-3.74.0-05/system/org/sonatype/ossindex/ossindex-service-api/1.3.0/ossindex-service-api-1.3.0.jar
nexus-3.74.0-05/system/org/sonatype/ossindex/ossindex-service-client/1.3.0/ossindex-service-client-1.3.0.jar
nexus-3.74.0-05/system/org/sonatype/sisu/sisu-odntatj/0.0.7/sisu-odntatj-0.0.7.jar
nexus-3.74.0-05/system/org/spdx/java-spdx-library/1.1.7/java-spdx-library-1.1.7.jar
nexus-3.74.0-05/system/org/spdx/spdx-jackson-store/1.1.7/spdx-jackson-store-1.1.7.jar
nexus-3.74.0-05/system/org/threeten/threetenbp/1.6.9/threetenbp-1.6.9.jar
nexus-3.74.0-05/system/org/tomlj/tomlj/1.0.0/tomlj-1.0.0.jar
nexus-3.74.0-05/system/org/tukaani/xz/1.10/xz-1.10.jar
nexus-3.74.0-05/system/org/yaml/snakeyaml/2.2/snakeyaml-2.2.jar
nexus-3.74.0-05/system/se/sawano/java/alphabetic-comparator/1.4.1/alphabetic-comparator-1.4.1.jar
nexus-3.74.0-05/system/settings.xml
nexus-3.74.0-05/system/uk/org/lidalia/sysout-over-alf4j/1.0.2/sysout-over-alf4j-1.0.2.jar
nexus-3.74.0-05/system/xpp3/xpp3_min/1.1.4c/xpp3_min-1.1.4c.jar
sonatype-work/nexus3/clean.cache
sonatype-work/nexus3/log/.placeholder
sonatype-work/nexus3/tmp/.placeholder
nexus1@ip-172-31-81-199:~$
```

555

We have give this command “ll” here it shows two tar files is for nexus & sonatype-work.

```
total 231116
drwxr-x--- 4 nexus1 nexus1 4096 Nov 12 14:10 ./
drwxr-xr-x 5 root root 4096 Nov 12 13:49 ../
-rw-r--r-- 1 nexus1 nexus1 220 Nov 12 13:49 .bash_logout
-rw-r--r-- 1 nexus1 nexus1 3771 Nov 12 13:49 .bashrc
-rw-r--r-- 1 nexus1 nexus1 807 Nov 12 13:49 .profile
drwxrwxr-x 10 nexus1 nexus1 4096 Nov 12 14:10 nexus-3.74.0-05/
-rw-rw-r-- 1 nexus1 nexus1 236629857 Nov 5 06:17 nexus-3.74.0-05-unix.tar.gz
drwxrwxr-x 3 nexus1 nexus1 4096 Nov 12 14:10 sonatype-work/
nexus1@ip-172-31-81-199:~$
```

Rename the file of nexus we have use this command mv nexus-3.74.0-05/ nexus

```
nexus1@ip-172-31-81-199:~$ mv nexus-3.74.0-05/ nexus
nexus1@ip-172-31-81-199:~$ ll
total 231120
drwxr-x--- 4 nexus1 nexus1 4096 Nov 12 14:58 ./
drwxr-xr-x 5 root root 4096 Nov 12 13:49 ../
-rw----- 1 nexus1 nexus1 142 Nov 12 14:36 .bash_history
-rw-r--r-- 1 nexus1 nexus1 220 Nov 12 13:49 .bash_logout
-rw-r--r-- 1 nexus1 nexus1 3771 Nov 12 13:49 .bashrc
-rw-r--r-- 1 nexus1 nexus1 807 Nov 12 13:49 .profile
drwxrwxr-x 10 nexus1 nexus1 4096 Nov 12 14:10 nexus/
-rw-rw-r-- 1 nexus1 nexus1 236629857 Nov 5 06:17 nexus-3.74.0-05-unix.tar.gz
drwxrwxr-x 3 nexus1 nexus1 4096 Nov 12 14:10 sonatype-work/
nexus1@ip-172-31-81-199:~$
```

Providing owner permission use this command

```
nexus1@ip-172-31-81-199:~$ chown nexus1:nexus1 nexus sonatype-work/ -R
```

And also read & write permission

```
nexus1@ip-172-31-81-199:~$ chmod 777 nexus sonatype-work/
nexus1@ip-172-31-81-199:~$ ll
total 231120
drwxr-x--- 4 nexus1 nexus1    4096 Nov 12 14:58 ./
drwxr-xr-x 5 root    root      4096 Nov 12 13:49 ../
-rw----- 1 nexus1 nexus1    142 Nov 12 14:36 .bash_history
-rw-r--r-- 1 nexus1 nexus1    220 Nov 12 13:49 .bash_logout
-rw-r--r-- 1 nexus1 nexus1   3771 Nov 12 13:49 .bashrc
-rw-r--r-- 1 nexus1 nexus1    807 Nov 12 13:49 .profile
drwxrwxrwx 10 nexus1 nexus1   4096 Nov 12 14:10 [redacted] /
-rw-rw-r-- 1 nexus1 nexus1 236629857 Nov  5 06:17 nexus-3.74.0-05-unix.tar.gz
drwxrwxrwx 3 nexus1 nexus1   4096 Nov 12 14:10 [redacted] /
nexus1@ip-172-31-81-199:~$
```

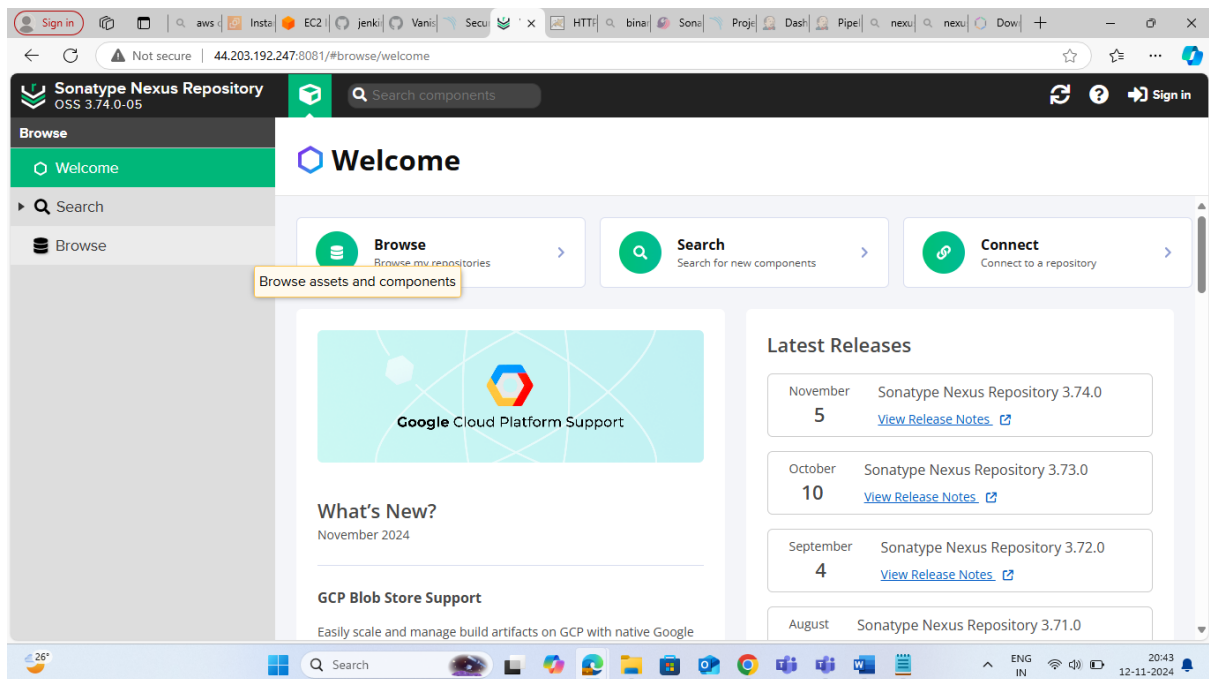
Start the nexus

We have use this command `./nexus start`

Check the status

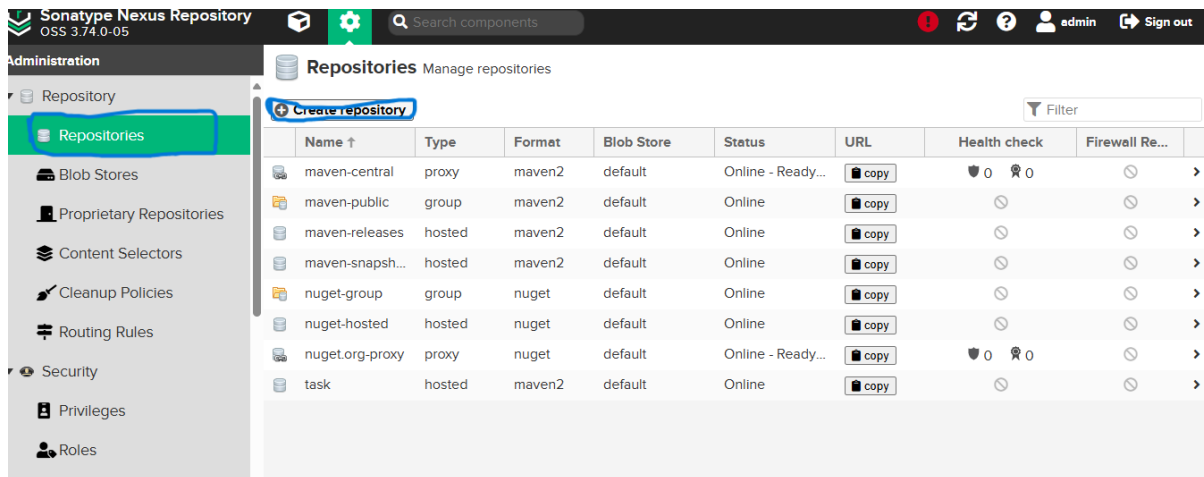
We have use this command `./nexus status`

Copy the publicip-----8081 .we will enter to nexus server.

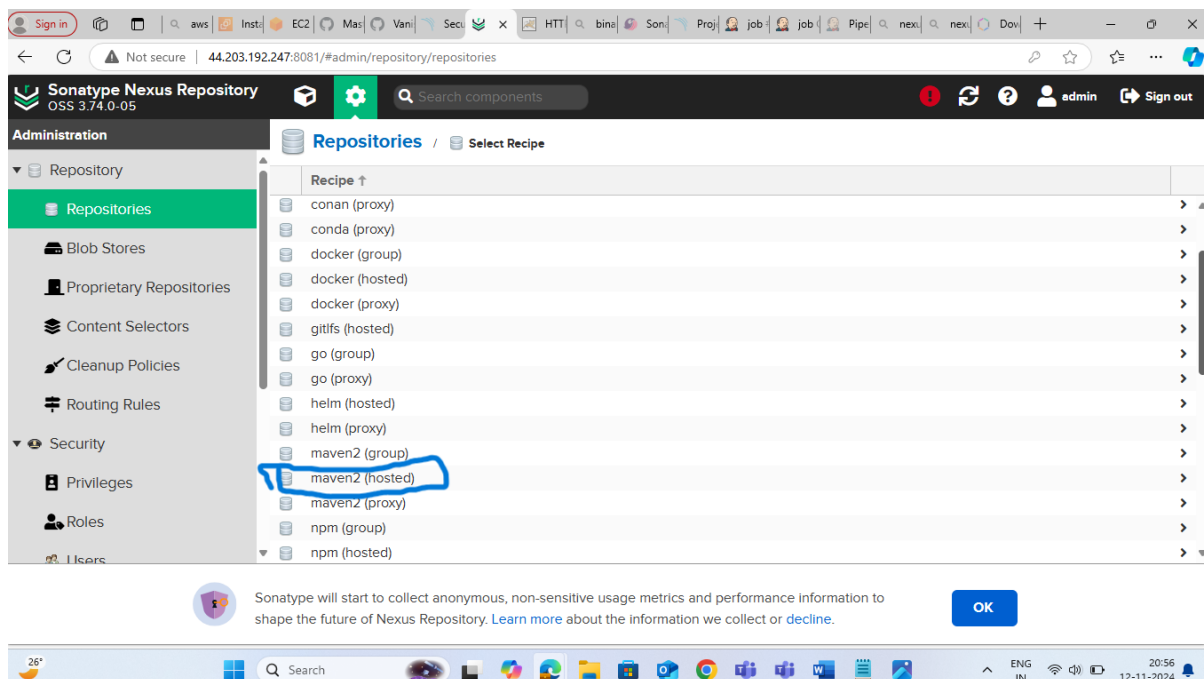


Create a Repistory in Nexus:

1.to create a hosted repository,name it as "task".



2.select maven2(hosted) recipe from the list as shown in the below-mentioned figure:



3.

On the create Repository page,

- Enter the name as task.
- In version policy, select the mixed type of artifacts.
- Under the Hosted section, in Deployment policy, select Allow redeploy it will allow u to deploy an application multiple times.

← ↻ ⚠ Not secure | 44.203.192.247:8081/#admin/repository/repositories

Sonatype Nexus Repository
OSS 3.74.0-05

Administration

- Repository
 - Repositories**
 - Blob Stores
 - Proprietary Repositories
 - Content Selectors
 - Cleanup Policies
 - Routing Rules
- Security
 - Privileges
 - Roles
 - Users

Repositories / Select Recipe / Create Repository: maven2 (hosted)

Name: A unique identifier for this repository
This field is required

Online: ☒ If checked, the repository accepts incoming requests

Maven 2

Version policy:
What type of artifacts does this repository store?
Release

Layout policy:
Validate that all paths are maven artifact or metadata paths
Strict

Content Disposition:
Add Content-Disposition header as 'Attachment' to disable some content from being inline in a browser.
Inline

← ↻ ⚠ Not secure | 44.203.192.247:8081/#admin/repository/repositories

Sonatype Nexus Repository
OSS 3.74.0-05

Administration

- Repository
 - Repositories**
 - Blob Stores
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- Security
 - Privileges
 - Roles
 - Users

Repositories / Select Recipe / Create Repository: maven2 (hosted)

Hosted

Deployment policy:
Controls if deployments or updates to artifacts are allowed
Disable redeploy

Proprietary Components:
☐ Components in this repository count as proprietary for namespace conflict attacks (requires Sonatype Nexus Firewall)

Cleanup

Cleanup Policies:
Components that match any of the Applied policies will be deleted

Available

Filter

Applied

Click on create repository.

← ↻ ⚠ Not secure | 44.203.192.247:8081/#admin/repository/repositories

Sonatype Nexus Repository
OSS 3.74.0-05

Administration

- Repository
 - Repositories**
 - Blob Stores
 - Proprietary Repositories
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 - Privileges
 - Roles
 - Users

Repositories Manage repositories

[Create repository](#)

Filter

Name ↑	Type	Format	Blob Store	Status	URL	Health check	Firewall Re...
maven-central	proxy	maven2	default	Online - Ready...	copy	0 0	
maven-public	group	maven2	default	Online	copy		
maven-releases	hosted	maven2	default	Online	copy		
maven-snapsh...	hosted	maven2	default	Online	copy		
nuget-group	group	nuget	default	Online	copy		
nuget-hosted	hosted	nuget	default	Online	copy		
nuget.org-proxy	proxy	nuget	default	Online - Ready...	copy	0 0	
task	hosted	maven2	default	Online	copy		

Sonatype will start to collect anonymous, non-sensitive usage metrics and performance information to shape the future of Nexus Repository. [Learn more](#) about the information we collect or [decline](#).

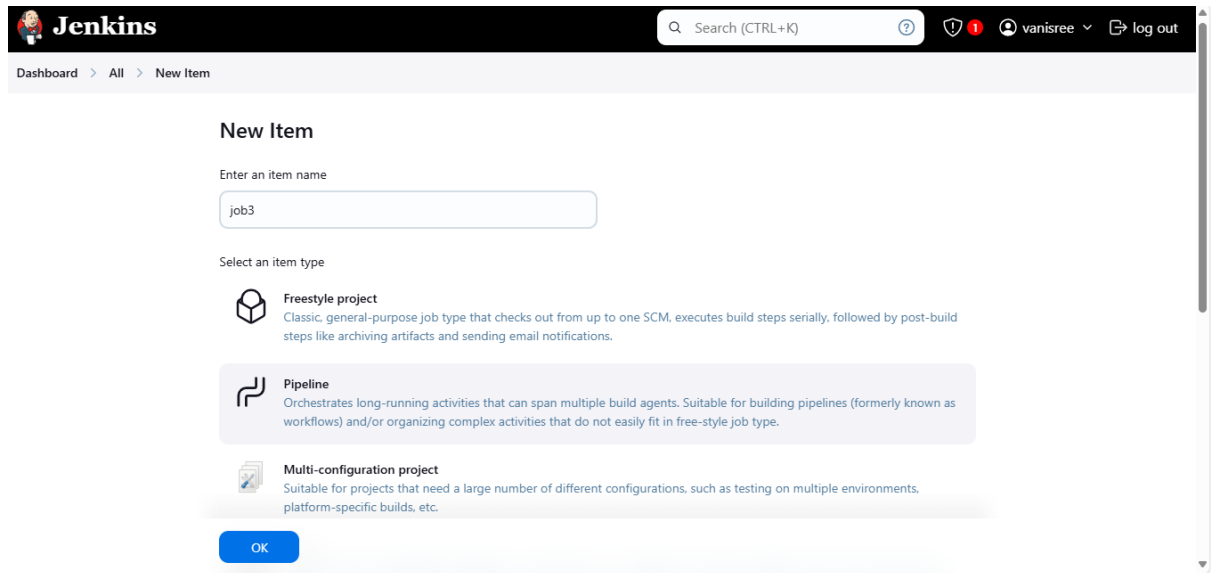
[OK](#)

Install and configure Nexus Plugins in Jenkins

Go to Jenkins and then dashboard>manage>Jenkins>manage plugins>available and search and install “Nexus Artifact Uploader”.

Create a jenkins pipeline

Create a jenkins job.then pipeline job type,named as Jenkins server.



In the next page,find the pipeline section and copy the below mentionedscript in the text area.

```
pipeline {
```

```
  agent any
```

```
  stages {
```

```
    stage('checkout') {
```

```
      steps {
```

```
        git branch: 'main', url: 'https://github.com/Vanisree2000/project-jenkins.git'
```

```
      }
```

```
    }
```

```
    stage('build') {
```

```
      steps {
```

```
        sh 'mvn clean package'
```

```
      }
```

```
    }
```

```
    stage('sonarqube scanner') {
```

```
      steps {
```

```

        withSonarQubeEnv( 'sonar') {

            sh 'mvn sonar:sonar'

        }

    }

    stage('nexus uploaded') {

        steps {

            nexusArtifactUploader artifacts: [[artifactId: 'spring-web', classifier: '', file:
'target/vprofile-v2.war', type: 'war']], credentialsId: 'nexus-uploaded', groupId: 'com.visualpathit',
nexusUrl: '3.83.143.252:8081/', nexusVersion: 'nexus3', protocol: 'http', repository: 'task',
version: 'v2'

        }

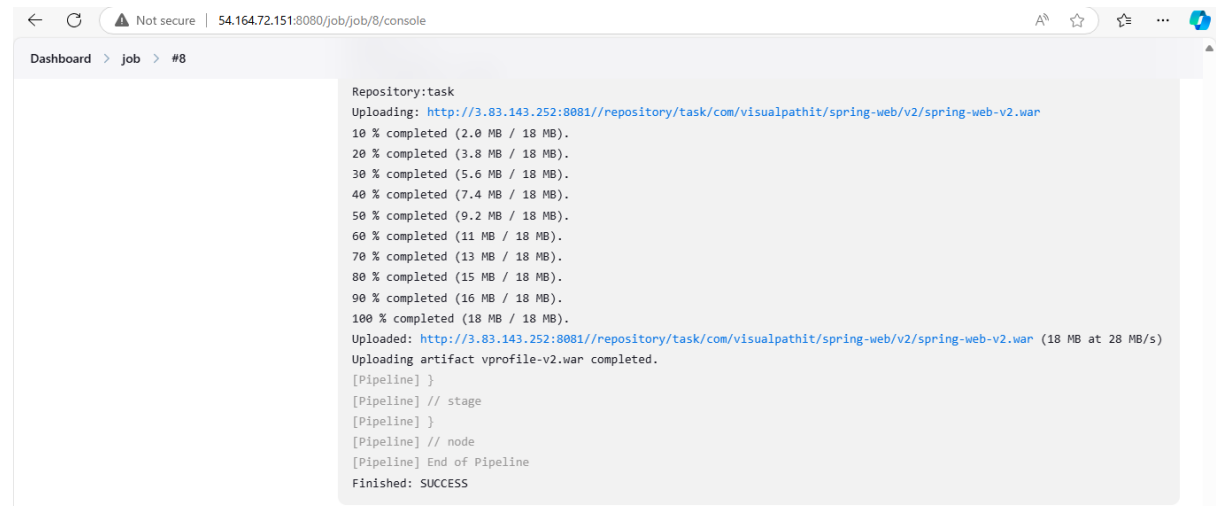
    }

}

}

```

Once build is a success, in your Jenkins console output.



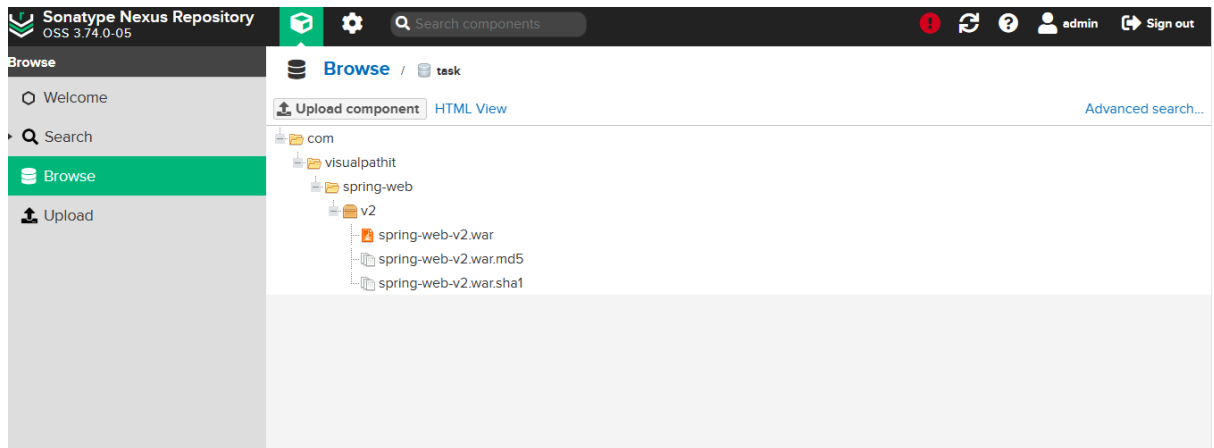
The screenshot shows the Jenkins console output for a job named 'job' at build #8. The output displays the upload progress of the artifact 'spring-web-v2.war' to the Nexus repository. The upload is completed at 100% (18 MB / 18 MB) at a rate of 28 MB/s. The console also shows the end of the pipeline and a successful finish.

```

Repository:task
Uploading: http://3.83.143.252:8081/repository/task/com/visualpathit/spring-web/v2/spring-web-v2.war
10 % completed (2.0 MB / 18 MB).
20 % completed (3.8 MB / 18 MB).
30 % completed (5.6 MB / 18 MB).
40 % completed (7.4 MB / 18 MB).
50 % completed (9.2 MB / 18 MB).
60 % completed (11 MB / 18 MB).
70 % completed (13 MB / 18 MB).
80 % completed (15 MB / 18 MB).
90 % completed (16 MB / 18 MB).
100 % completed (18 MB / 18 MB).
Uploaded: http://3.83.143.252:8081/repository/task/com/visualpathit/spring-web/v2/spring-web-v2.war (18 MB at 28 MB/s)
Uploading artifact vprofile-v2.war completed.
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS

```

Whereas, in your nexus Repository Manager.



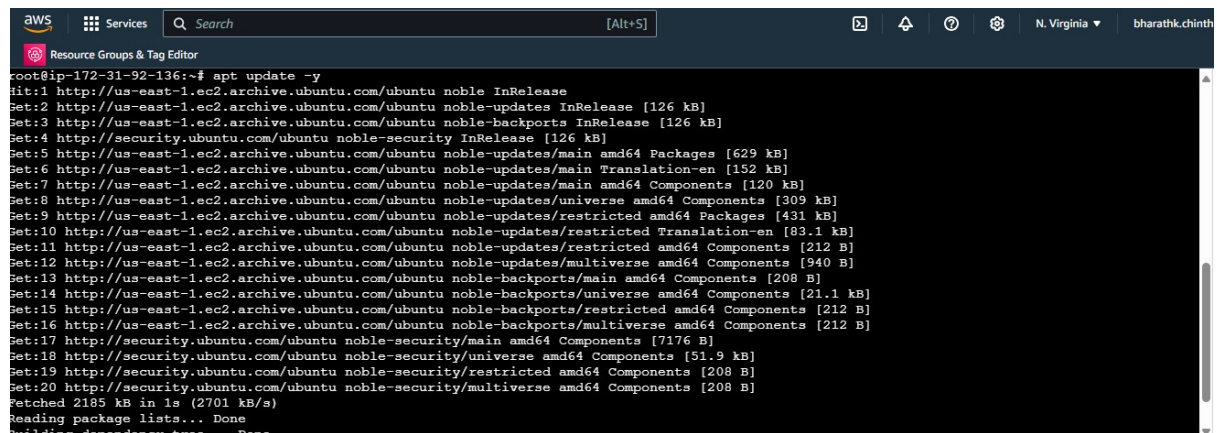
SONARQUBE SERVER

1. I have created a sonar server.

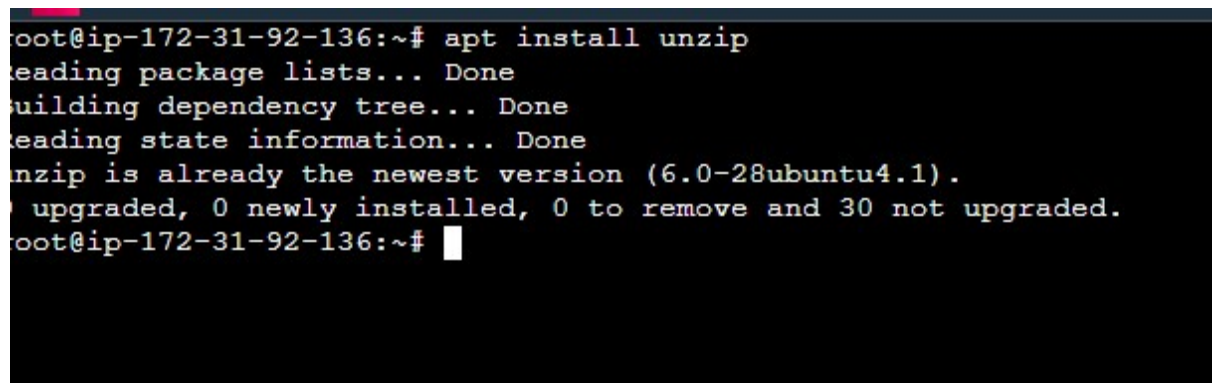


2. Then sonar server connects directly.

3. We have set up the sonar server.



4. After that, install unzip.



5. Then, verify the java version.

```
root@ip-172-31-92-136:~# java -version
openjdk version "17.0.13" 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Ubuntu-2ubuntu124.04)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Ubuntu-2ubuntu124.04, mixed mode, sharing)
root@ip-172-31-92-136:~#
```

6.create user

```
Resource Groups & Tag Editor
root@ip-172-31-92-136:~# adduser sonarl
info: Adding user `sonarl' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `sonarl' (1002) ...
info: Adding new user `sonarl' (1002) with group `sonarl (1002)' ...
info: Creating home directory `/home/sonarl' ...
info: Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for sonarl
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] yes
info: Adding new user `sonarl' to supplemental / extra groups `users' ...
info: Adding user `sonarl' to group `users' ...
root@ip-172-31-92-136:~#
```

7.Then convert into user.And we have use this command “wget

<https://binaries.sonarsource.com/Distribution/sonarqube/sonarqube-9.4.0.54424.zip>”

```
aws
Services Search [Alt+S] N. Virginia bharathk.chintha
Resource Groups & Tag Editor
root@ip-172-31-92-136:~# su - sonarl
sonarl@ip-172-31-92-136:~$ ll
total 20
drwxr-xr-x 2 sonarl sonarl 4096 Nov 12 06:38 ./
drwxr-xr-x 5 root root 4096 Nov 12 06:38 ../
-rw-r--r-- 1 sonarl sonarl 220 Nov 12 06:38 .bash_logout
-rw-r--r-- 1 sonarl sonarl 3771 Nov 12 06:38 .bashrc
-rw-r--r-- 1 sonarl sonarl 807 Nov 12 06:38 .profile
sonarl@ip-172-31-92-136:~$ wget https://binaries.sonarsource.com/Distribution/sonarqube/sonarqube-9.4.0.54424.zip
--2024-11-12 06:43:27-- https://binaries.sonarsource.com/Distribution/sonarqube/sonarqube-9.4.0.54424.zip
Resolving binaries.sonarsource.com (binaries.sonarsource.com)... 99.84.191.71, 99.84.191.75, 99.84.191.23, ...
Connecting to binaries.sonarsource.com (binaries.sonarsource.com) [99.84.191.71]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 287666040 (274M) [binary/octet-stream]
Saving to: 'sonarqube-9.4.0.54424.zip'

sonarqube-9.4.0.54424.zip      100%[=====>] 274.34M  93.7MB/s  in 2.9s

2024-11-12 06:43:30 (93.7 MB/s) - 'sonarqube-9.4.0.54424.zip' saved [287666040/287666040]

sonarl@ip-172-31-92-136:~$ ll
total 280944
drwxr-xr-x 2 sonarl sonarl 4096 Nov 12 06:43 ./
drwxr-xr-x 5 root root 4096 Nov 12 06:38 ../
```

```
sonarl@ip-172-31-92-136:~$ ll
total 280944
drwxr-xr-x 2 sonarl sonarl 4096 Nov 12 06:43 ./
drwxr-xr-x 5 root root 4096 Nov 12 06:38 ../
-rw-r--r-- 1 sonarl sonarl 220 Nov 12 06:38 .bash_logout
-rw-r--r-- 1 sonarl sonarl 3771 Nov 12 06:38 .bashrc
-rw-r--r-- 1 sonarl sonarl 807 Nov 12 06:38 .profile
-rw-rw-r-- 1 sonarl sonarl 287666040 Apr 1 2022 sonarqube-9.4.0.54424.zip
sonarl@ip-172-31-92-136:~$
```

8.It is visible tar file.

9.how to extract this unzip. We have use this command “unzip sonarqube-9.4.0.54424.zip”.

```

sonar1@ip-172-31-92-136:~$ unzip sonarqube-9.4.0.54424.zip
Archive:  sonarqube-9.4.0.54424.zip
  creating: sonarqube-9.4.0.54424/
  inflating: sonarqube-9.4.0.54424/dependency-license.json
  creating: sonarqube-9.4.0.54424/bin/
  creating: sonarqube-9.4.0.54424/bin/jsw-license/
  inflating: sonarqube-9.4.0.54424/bin/jsw-license/LICENSE.txt
  creating: sonarqube-9.4.0.54424/bin/macosx-universal-64/
  creating: sonarqube-9.4.0.54424/bin/macosx-universal-64/lib/
  inflating: sonarqube-9.4.0.54424/bin/macosx-universal-64/lib/libwrapper.jnilib
  inflating: sonarqube-9.4.0.54424/bin/macosx-universal-64/sonar.sh
  inflating: sonarqube-9.4.0.54424/bin/macosx-universal-64/wrapper
  creating: sonarqube-9.4.0.54424/bin/linux-x86-64/
  creating: sonarqube-9.4.0.54424/bin/linux-x86-64/lib/
  inflating: sonarqube-9.4.0.54424/bin/linux-x86-64/lib/libwrapper.so
  inflating: sonarqube-9.4.0.54424/bin/linux-x86-64/sonar.sh
  inflating: sonarqube-9.4.0.54424/bin/linux-x86-64/wrapper
  creating: sonarqube-9.4.0.54424/bin/windows-x86-64/
  inflating: sonarqube-9.4.0.54424/bin/windows-x86-64/StartNTService.bat
  inflating: sonarqube-9.4.0.54424/bin/windows-x86-64/StartSonar.bat
  creating: sonarqube-9.4.0.54424/bin/windows-x86-64/lib/

```

```

AWS Services Search [Alt+S] N. Virginia bharath.chintha
Resource Groups & Tag Editor
  inflating: sonarqube-9.4.0.54424/web/robots.txt
  inflating: sonarqube-9.4.0.54424/web/apple-touch-icon-72x72.png
  inflating: sonarqube-9.4.0.54424/web/apple-touch-icon.png
  inflating: sonarqube-9.4.0.54424/web/apple-touch-icon-180x180.png
  creating: sonarqube-9.4.0.54424/web/js/
  inflating: sonarqube-9.4.0.54424/web/js/out3HJVJVOVO.css.map
  inflating: sonarqube-9.4.0.54424/web/js/out3HJVJVOVO.css
  inflating: sonarqube-9.4.0.54424/web/js/outEG4X2BC8.js.map
  inflating: sonarqube-9.4.0.54424/web/js/outEG4X2BC8.js
  inflating: sonarqube-9.4.0.54424/web/apple-touch-icon-152x152.png
  inflating: sonarqube-9.4.0.54424/web/favicon.ico
  inflating: sonarqube-9.4.0.54424/web/apple-touch-icon-60x60.png
  inflating: sonarqube-9.4.0.54424/web/apple-touch-icon-57x57.png
  inflating: sonarqube-9.4.0.54424/web/apple-touch-icon-precomposed.png
  creating: sonarqube-9.4.0.54424/lib/jdbc/
  creating: sonarqube-9.4.0.54424/lib/jdbc/mssql/
  inflating: sonarqube-9.4.0.54424/lib/jdbc/mssql/mssql-jdbc-9.4.1.jre11.jar
  creating: sonarqube-9.4.0.54424/lib/jdbc/postgresql/
  inflating: sonarqube-9.4.0.54424/lib/jdbc/postgresql/postgresql-42.3.3.jar
  creating: sonarqube-9.4.0.54424/lib/jdbc/h2/
  inflating: sonarqube-9.4.0.54424/lib/jdbc/h2/h2-2.1.210.jar
  inflating: sonarqube-9.4.0.54424/lib/sonar-shutdown-9.4.0.54424.jar
  creating: sonarqube-9.4.0.54424/elasticsearch/plugins/
sonar1@ip-172-31-92-136:~$

```

10. we have give the "ll" command then it will display tar files.

```

Resource Groups & Tag Editor
sonar1@ip-172-31-92-136:~$ ll
total 280952
drwxr-xr-x  3 sonar1 sonar1    4096 Nov 12 06:52 ./
drwxr-xr-x  5 root   root     4096 Nov 12 06:38 ../
-rw-r--r--  1 sonar1 sonar1    125 Nov 12 06:52 .bash_history
-rw-r--r--  1 sonar1 sonar1    220 Nov 12 06:38 .bash_logout
-rw-r--r--  1 sonar1 sonar1   3771 Nov 12 06:38 .bashrc
-rw-r--r--  1 sonar1 sonar1    807 Nov 12 06:38 .profile
drwxr-xr-x 11 sonar1 sonar1    4096 Apr  1 2022 sonarqube-9.4.0.54424/
-rw-rw-r--  1 sonar1 sonar1 287666040 Apr  1 2022 sonarqube-9.4.0.54424.zip
sonar1@ip-172-31-92-136:~$

```

```

sonar1@ip-172-31-92-136:~$ cd sonarqube-9.4.0.54424/
sonar1@ip-172-31-92-136:~/sonarqube-9.4.0.54424$ ll
total 100
drwxr-xr-x  3 sonar1 sonar1    4096 Apr  1 2022 ./
drwxr-xr-x  3 sonar1 sonar1    4096 Nov 12 06:52 ../
-rw-r--r--  1 sonar1 sonar1   7651 Apr  1 2022 COPYING
drwxr-xr-x  6 sonar1 sonar1    4096 Apr  1 2022 bin/
drwxr-xr-x  2 sonar1 sonar1    4096 Apr  1 2022 conf/
drwxr-xr-x  2 sonar1 sonar1    4096 Apr  1 2022 data/
-rw-r--r--  1 sonar1 sonar1 46490 Apr  1 2022 dependency-license.json
drwxr-xr-x  7 sonar1 sonar1    4096 Apr  1 2022 elasticsearch/
drwxr-xr-x  4 sonar1 sonar1    4096 Apr  1 2022 extensions/
drwxr-xr-x  6 sonar1 sonar1    4096 Apr  1 2022 lib/
drwxr-xr-x  2 sonar1 sonar1    4096 Apr  1 2022 logs/
drwxr-xr-x  2 sonar1 sonar1    4096 Apr  1 2022 temp/
drwxr-xr-x  5 sonar1 sonar1    4096 Apr  1 2022 web/
sonar1@ip-172-31-92-136:~/sonarqube-9.4.0.54424$ cd bin/
sonar1@ip-172-31-92-136:~/sonarqube-9.4.0.54424/bin$ ll
total 24
drwxr-xr-x  6 sonar1 sonar1    4096 Apr  1 2022 ./
drwxr-xr-x 11 sonar1 sonar1    4096 Apr  1 2022 ../
drwxr-xr-x  2 sonar1 sonar1    4096 Apr  1 2022 jsw-license/
drwxr-xr-x  3 sonar1 sonar1    4096 Apr  1 2022 linux-x86-64/
drwxr-xr-x  3 sonar1 sonar1    4096 Apr  1 2022 macosx-universal-64/

```

After that verify the sonar start and status.

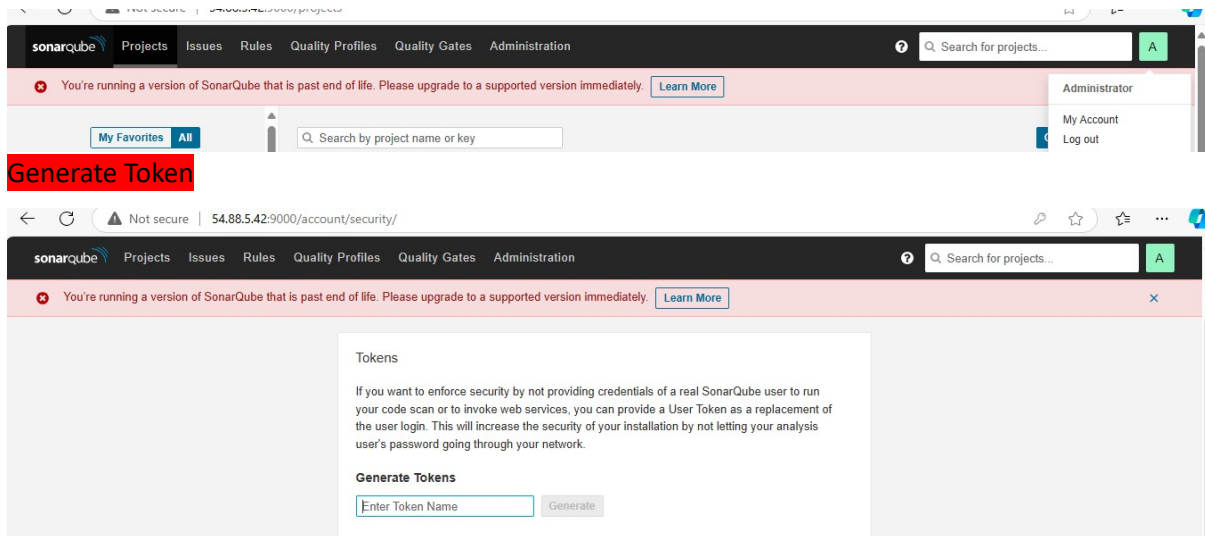
Process:

Once the tools are in place,

Jenkins is at [Dashboard \[Jenkins\]](#) and sonarqube at <http://54.88.5.42:9000/>.

Sonarqube configurations:

Create a token in sonarqube by logging into sonarqube.select the profile and choose MyAccount



Keep the token in a safe location, which would be used in a later stage.

Jenkins Configurations:

1.configure sonarqube scanner

Log into Jenkins, go to manage Jenkins > Tools section. we have select the plugin then go to available plugins. after that install the sonarqube scanner.

- Add the sonarqube scanner installations details.
- We have go to manage Jenkins then select the system.
- Select the checkbox of injecting Environmental variables and add the details of the sonarqube server.

← ↻ ⚠ Not secure | 54.164.72.151:8080/manage/configure 🔍 ⚙ ⌵

Dashboard > 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 ✕

sonar

Server URL
Default is http://localhost:9000

http://52.91.212.74:9000/

Server authentication token
SonarQube authentication token. Mandatory when anonymous access is disabled.

sonar deployment ▼

+ Add

- The authentication token must be the credential that is created.
- Create a credential of kind secret text and add the token generated from the sonarqube .

Jenkins Credentials Provider: Jenkins

Add Credentials

Domain

Global credentials (unrestricted) ▼

Kind

Secret text ▼

Scope ?

Global (Jenkins, nodes, items, all child items, etc) ▼

Secret

.....

ID ?

Jenkins Credentials Provider: Jenkins

Scope ?

Global (Jenkins, nodes, items, all child items, etc) ▼

Secret

.....

ID ?

sonarqubeserver

Description ?

sonar deploy

Cancel

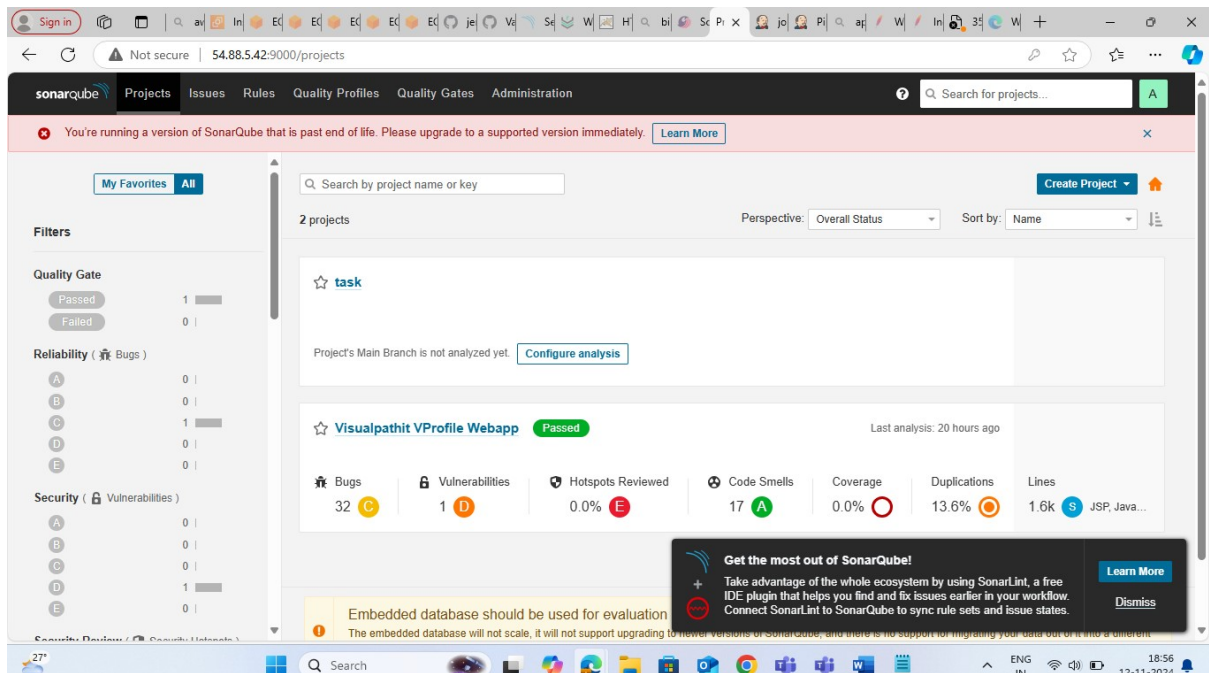
Add

- Click on add.
- Jenkins file

```
pipeline {
  agent any

  stage('sonarqube scanner') {
    steps {
      withSonarQubeEnv('sonar') {
        sh 'mvn sonar:sonar'
      }
    }
  }
}
```

Once the analysis is completed ,the sonarqube project analysis report looks like below.



Tomcat:

1. Install java using command 'apt install openjdk-17-jre'.
2. Download Tomcat from the official website or click on this link
<https://downloads.apache.org/tomcat/tomcat-9/v9.0.97/bin/apache-tomcat-9.0.97.tar.gz> add
wget before the link to download to terminal.
3. Extract the download tar file.
4. Navigate to the tomcat directory move to bin there run startup.sh
5. Access Tomcat at <http://localhost:8080>.

Tomcat - Jenkins as an administrator

1. Log into Jenkins as an administrator.
2. Go to pipeline syntax and select deploy war/ear to container.
3. scroll down to Tomcat section.
4. Enter Tomcat URL, Username and password.
5. Add necessary details and generate pipeline syntax.
6. Select the pipeline syntax and copy it and paste to pipeline in pipeline job.

```
stage('tomcatdeploy') {
    steps {
```

```
    deploy adapters: [tomcat9(credentialsId: 'tomcat', path: '', url:
'http://44.202.14.199:8080/']], contextPath: 'deployment', war: 'target/*.war'
}
}
```

Final output

