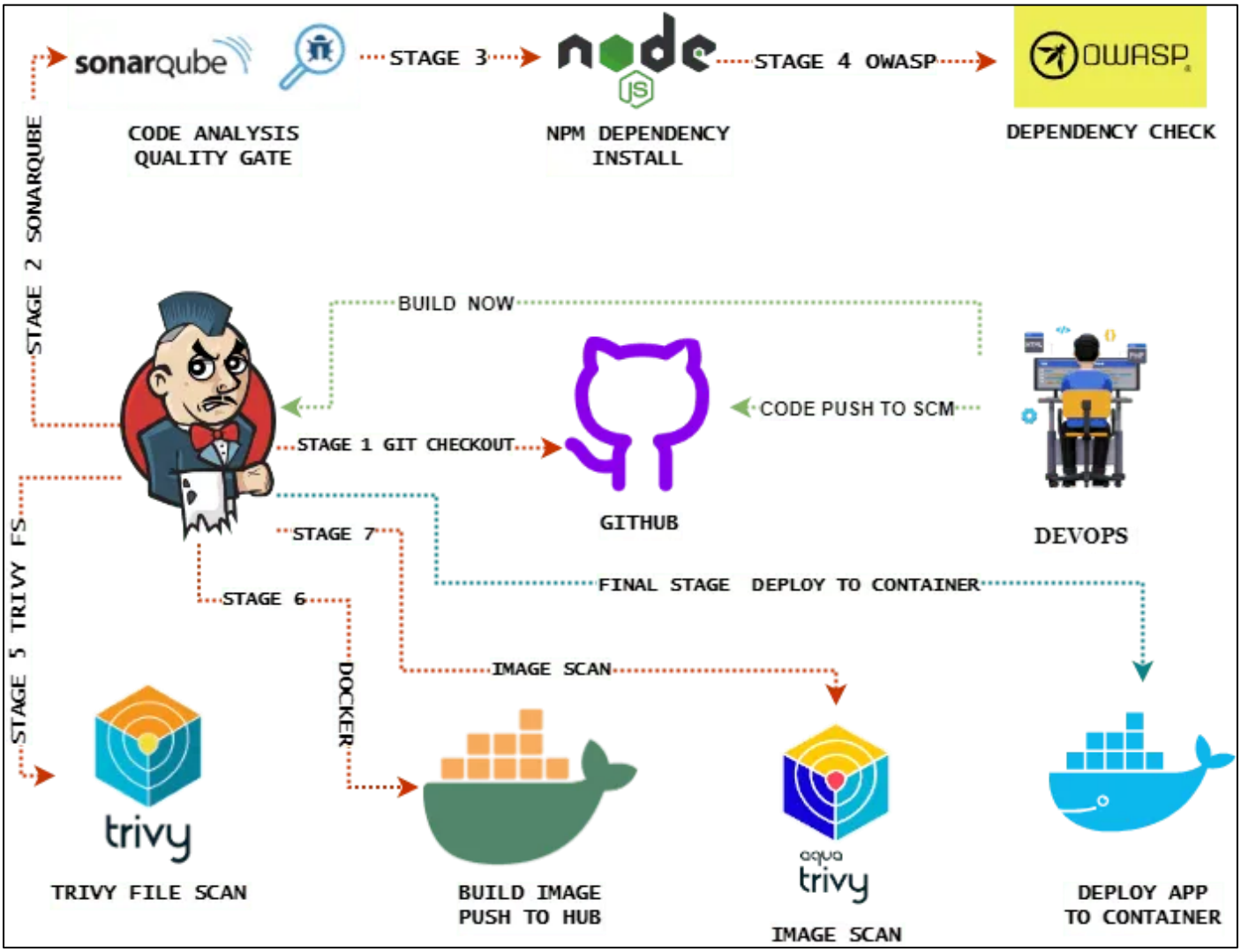
Project

Deploying Zomato Clone App with DevSecOps CI/CD

[Ajay Gaur]

 # Zomato Clone Architecture –



Steps:

Step 1 — Launch an Ubuntu (22.04) T2 Large Instance

Step 2 — Install Jenkins, Docker and Trivy. Create a Sonarqube Container using Docker.

Step 3 — Install Plugins like JDK, Sonarqube Scanner, Nodejs, & OWASP Dependency Check.

Step 4 — Create a Pipeline Project in Jenkins using a Declarative Pipeline

Step 5 — Install OWASP Dependency Check Plugins

Step 6 — Docker Image Build and Push

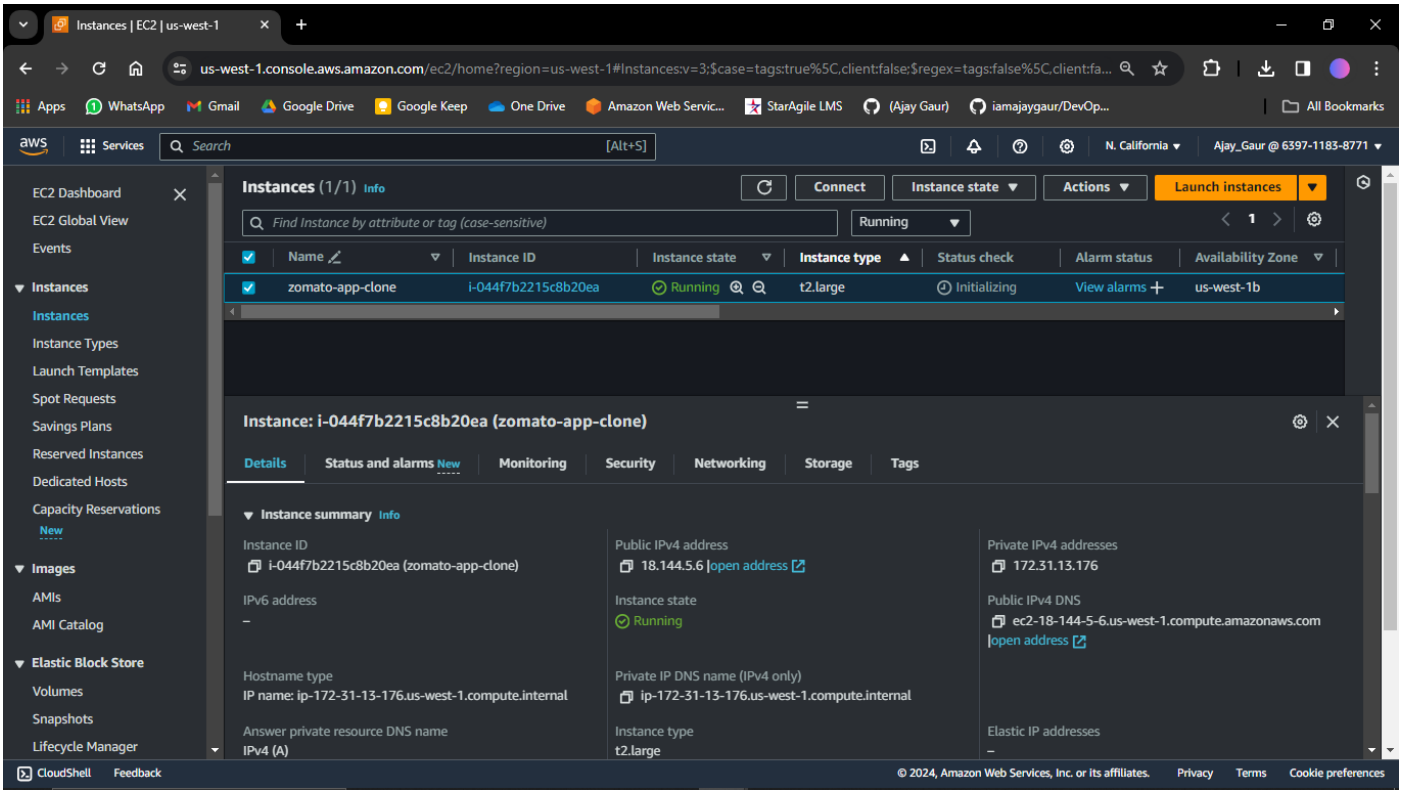
Step 7 — Deploy the image using Docker

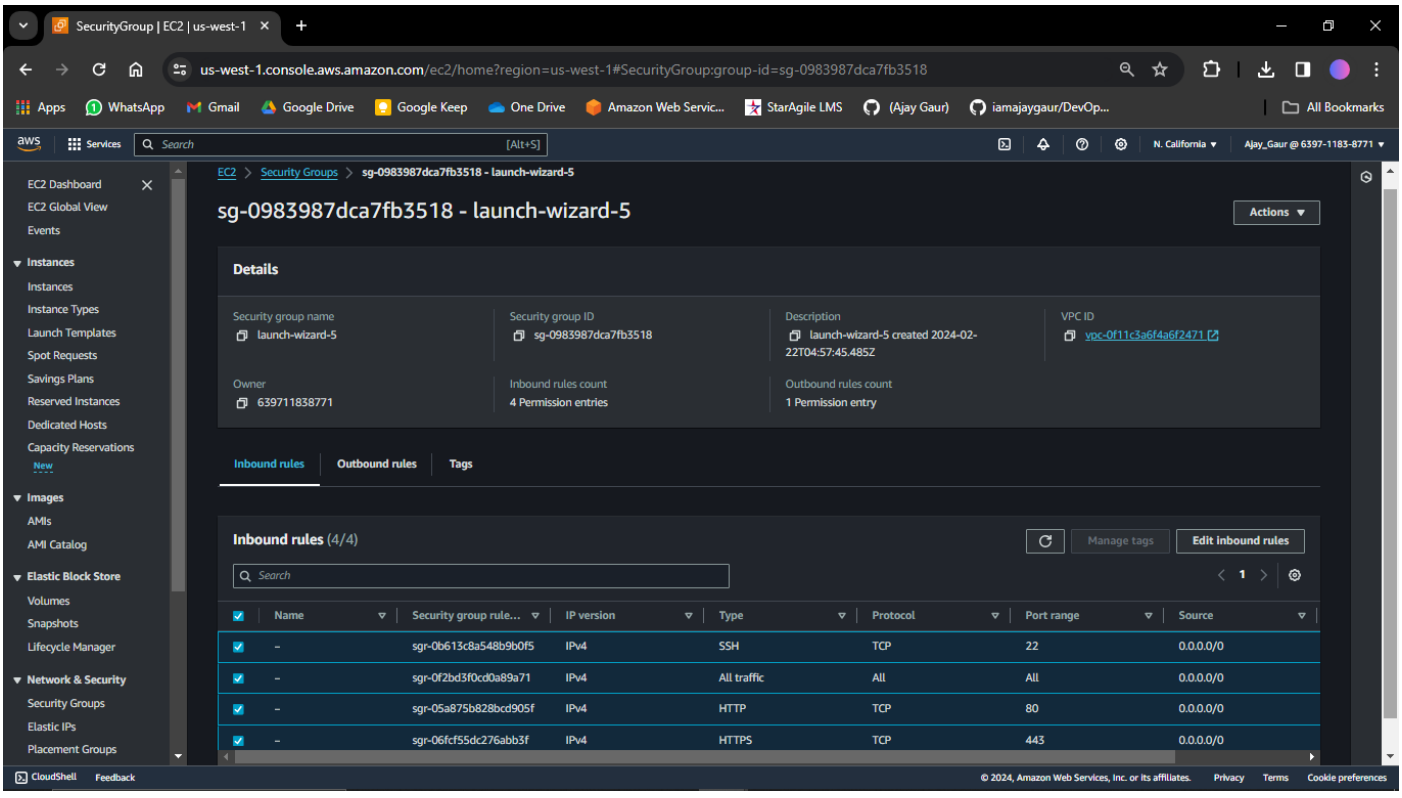
Step 8 — Terminate the AWS EC2 Instances.

Now, let's get started and dig deeper into each of these steps.

Step 1 - Launch an Ubuntu (22.04) T2 Large Instance

Launch an AWS T2 Large Instance. Use the image as Ubuntu. You can create a new key pair or use an existing one. Enable HTTP and HTTPS settings in the Security Group and open all ports (not best case to open all ports but just for learning purposes it's okay).

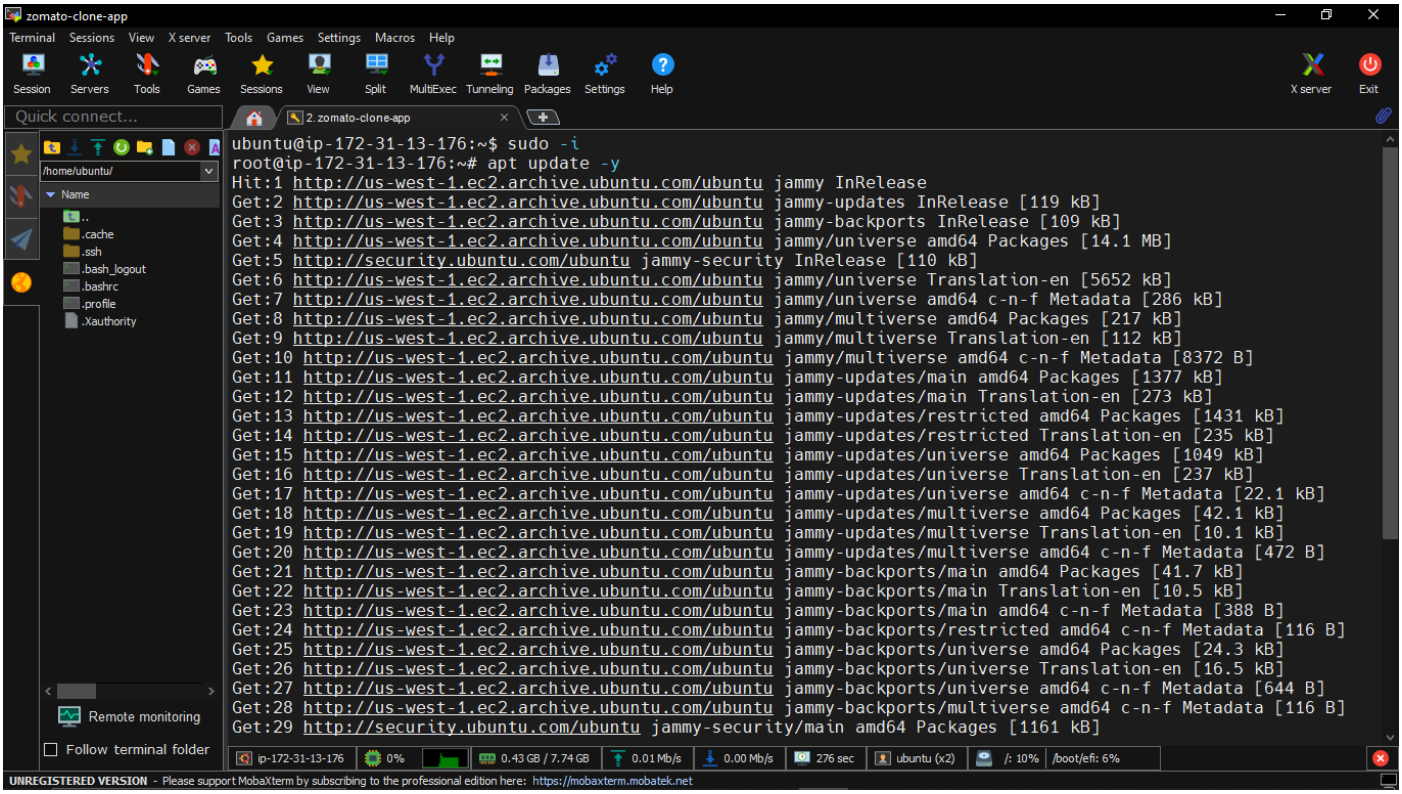


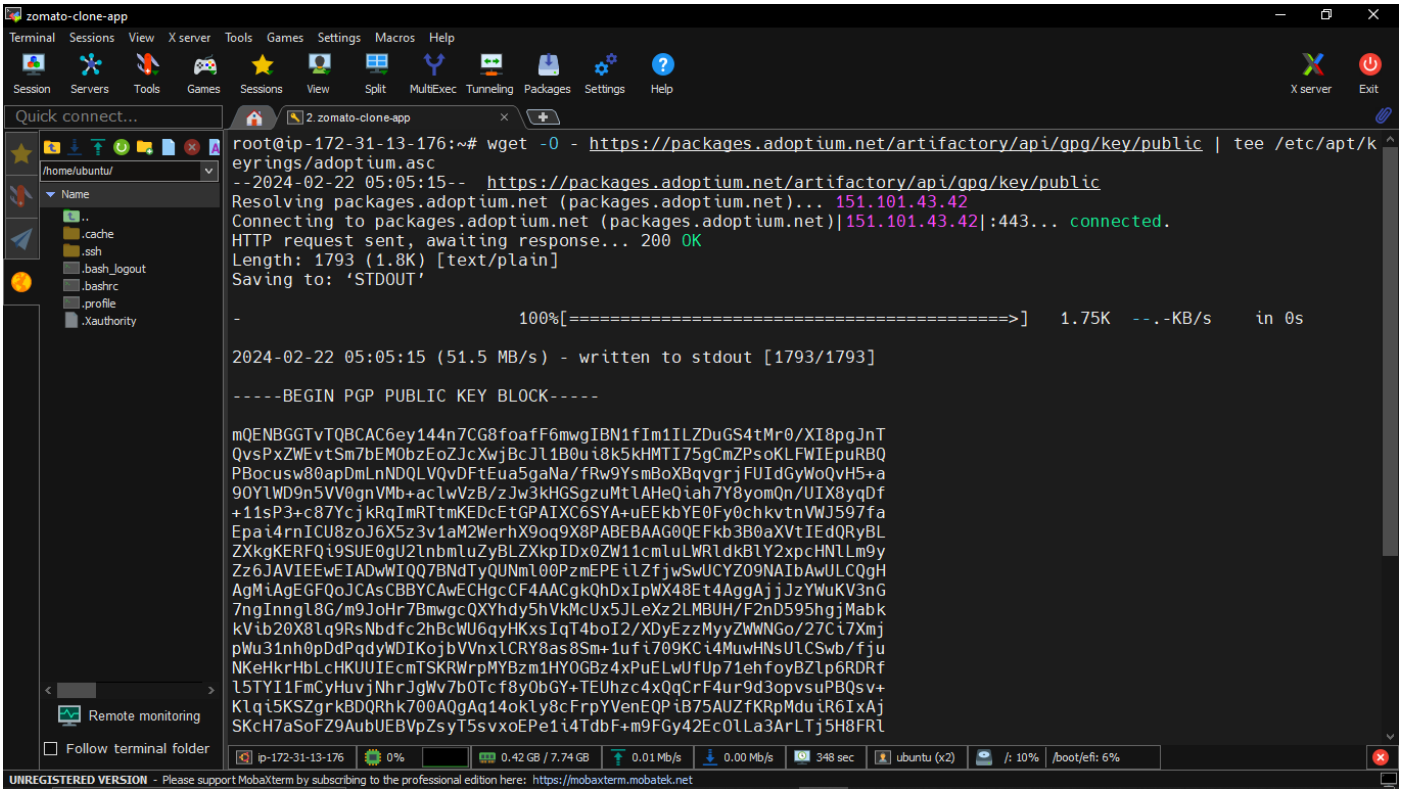


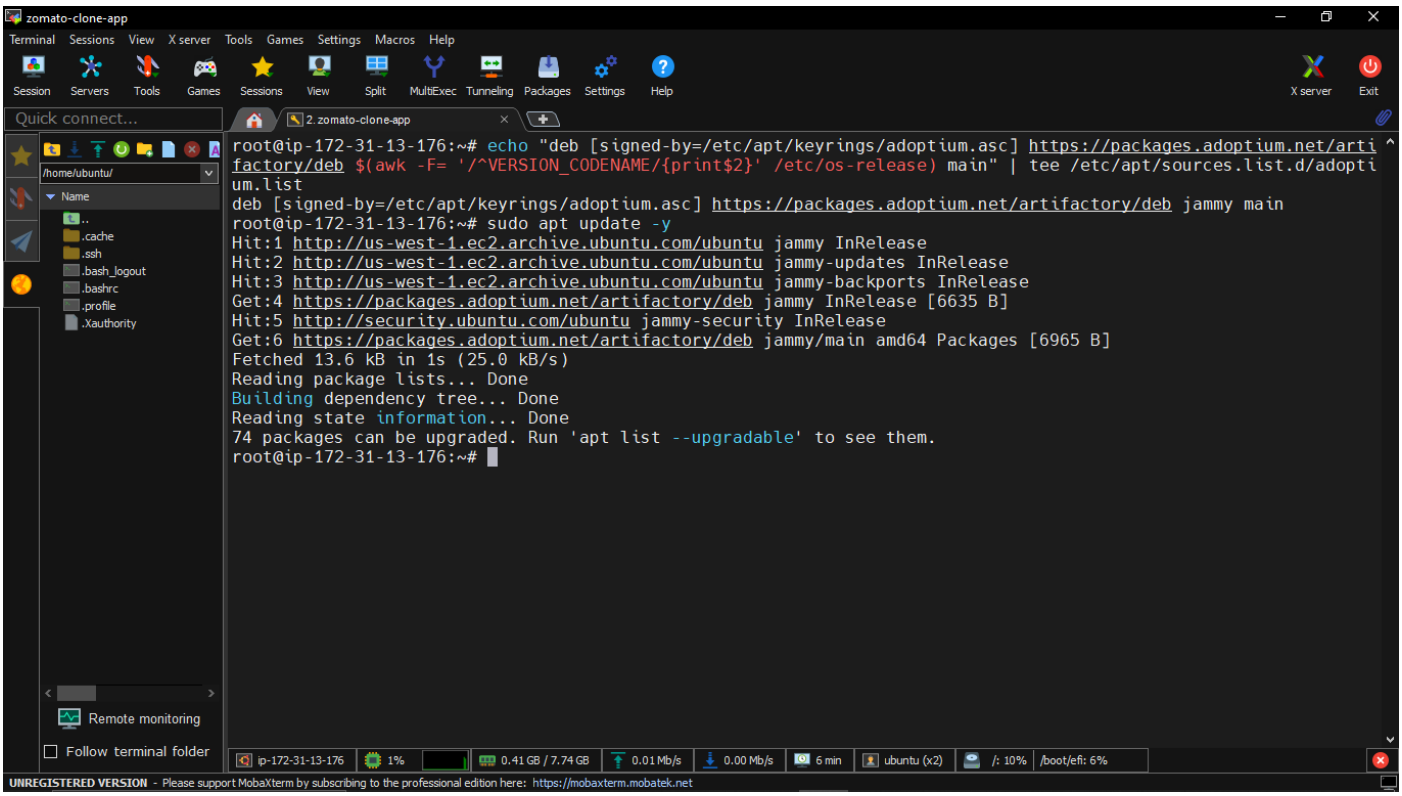
Step 2 - Install Jenkins, Docker and Trivy

→ To Install Jenkins

> sudo apt update -y
> wget -O - https://packages.adoptium.net/artifactory/api/gpg/key/public | tee /etc/apt/keyrings/adoptium.asc
> echo "deb [signed-by=/etc/apt/keyrings/adoptium.asc] https://packages.adoptium.net/artifactory/deb $(awk -F= '/^VERSION_CODENAME/{print$2}' /etc/os-release) main" | tee /etc/apt/sources.list.d/adoptium.list
> sudo apt update -y
> sudo apt install temurin-17-jdk -y
> /usr/bin/java –version
> curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee \ /usr/share/keyrings/jenkins-keyring.asc > /dev/null
> echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \ https://pkg.jenkins.io/debian-stable binary/ | sudo tee \ /etc/apt/sources.list.d/jenkins.list > /dev/null
> sudo apt-get update -y
> sudo apt-get install jenkins -y
> sudo systemctl start Jenkins
> sudo systemctl status Jenkins




zomato-clone-app
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help X server Exit
Quick connect...
2. zomato-clone-app
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
Remote monitoring
Follow terminal folder
root@ip-172-31-13-176:~# wget -O - https://packages.adoptium.net/artifactory/api/gpg/key/public | tee /etc/apt/keyrings/adoptium.asc
--2024-02-22 05:05:15-- https://packages.adoptium.net/artifactory/api/gpg/key/public
Resolving packages.adoptium.net (packages.adoptium.net)... 151.101.43.42
Connecting to packages.adoptium.net (packages.adoptium.net)|151.101.43.42|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1793 (1.8K) [text/plain]
Saving to: 'STDOUT'
- 100%[=========>] 1.75K --.-KB/s in 0s
2024-02-22 05:05:15 (51.5 MB/s) - written to stdout [1793/1793]
-----BEGIN PGP PUBLIC KEY BLOCK-----
mQENBGGTvTQBCAC6ey144n7CG8foafF6mwgIBN1fIm1ILZDuGS4tMr0/XI8pgJnT
QvsPxZWEvtSm7bEMObzEoZJcXwjBcJl1B0ui8k5kHMTI75gCmZPsoKLFWIEpuRBQ
PBocusw80apDmLnNDQLVQvDFtEua5gaNa/fRw9YsmBoXBqvgrjFUIdGyWoQvH5+a
9OYlWD9n5VV0gnVMb+aclwVzB/zJw3kHGSgzuMtlAHeQiah7Y8yomQn/UIX8yqDf
+11sP3+c87YcjkRqImRTtmKEDcEtGPAIXC6SYA+uEEkbYE0Fy0chkvtnVWJ597fa
Epai4rnICU8zoJ6X5z3v1aM2WerhX9oq9X8PABEBAAG0QEFkb3B0aXVtIEdQRyBL
ZXkgKERFQi9SUE0gU2lnbmluZyBLZXkpIDx0ZW11cmluLWRldkBlY2xpcHNlLm9y
Zz6JAVIEEwEIADwWIQQ7BNdTyQUNml00PzmEPEilZfjwSwUCYZO9NAIbAwULCQgH
AgMiAgEGFQoJCAsCBBYCAwECHgcCF4AACgkQhDxIpWX48Et4AggAjjJzYWuKV3nG
7ngInngl8G/m9JoHr7BmwgcQXYhdy5hVkMcUx5JLeXz2LMBUH/F2nD595hgjMabk
kVib20X8lq9RsNbdfc2hBcWU6qyHKxsIqT4boI2/XDyEzzMyyZWWNGo/27Ci7Xmj
pWu31nh0pDdPqdyWDIKojbVVnxlCRY8as8Sm+1ufi709KCi4MuwHNsUlCSwb/fju
NKeHkrHbLcHKUUIEcmTSKRWrpMYBzm1HYOGBz4xPuELwUfUp71ehfoyBZlp6RDRf
l5TYI1FmCyHuvjNhrJgWv7bOTcf8yObGY+TEUhzc4xQqCrF4ur9d3opvsuPBQsv+
Klqi5KSZgrkBDQRhk700AQgAq14okly8cFrpYVenEQPiB75AUZfKRpMduiR6IxAj
SKcH7aSoFZ9AubUEBVpZsyT5svxoEPe1i4TdbF+m9FGy42EcOlLa3ArLTj5H8FRl
ip-172-31-13-176 0% 0.42 GB / 7.74 GB 0.01 Mb/s 0.00 Mb/s 348 sec ubuntu (x2) /: 10% /boot/efi: 6%
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net


zomato-clone-app
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help X server Exit
Quick connect...
2. zomato-clone-app
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
Remote monitoring
Follow terminal folder
root@ip-172-31-13-176:~# echo "deb [signed-by=/etc/apt/keyrings/adoptium.asc] https://packages.adoptium.net/artifactory/deb $(awk -F= '/^VERSION_CODENAME/{print$2}' /etc/os-release) main" | tee /etc/apt/sources.list.d/adoptium.list
deb [signed-by=/etc/apt/keyrings/adoptium.asc] https://packages.adoptium.net/artifactory/deb jammy main
root@ip-172-31-13-176:~# sudo apt update -y
Hit:1 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:4 https://packages.adoptium.net/artifactory/deb jammy InRelease [6635 B]
Hit:5 http://security.ubuntu.com/ubuntu jammy-security InRelease
Get:6 https://packages.adoptium.net/artifactory/deb jammy/main amd64 Packages [6965 B]
Fetched 13.6 kB in 1s (25.0 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
74 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@ip-172-31-13-176:~#
ip-172-31-13-176 1% 0.41 GB / 7.74 GB 0.01 Mb/s 0.00 Mb/s 6 min ubuntu (x2) /: 10% /boot/efi: 6%
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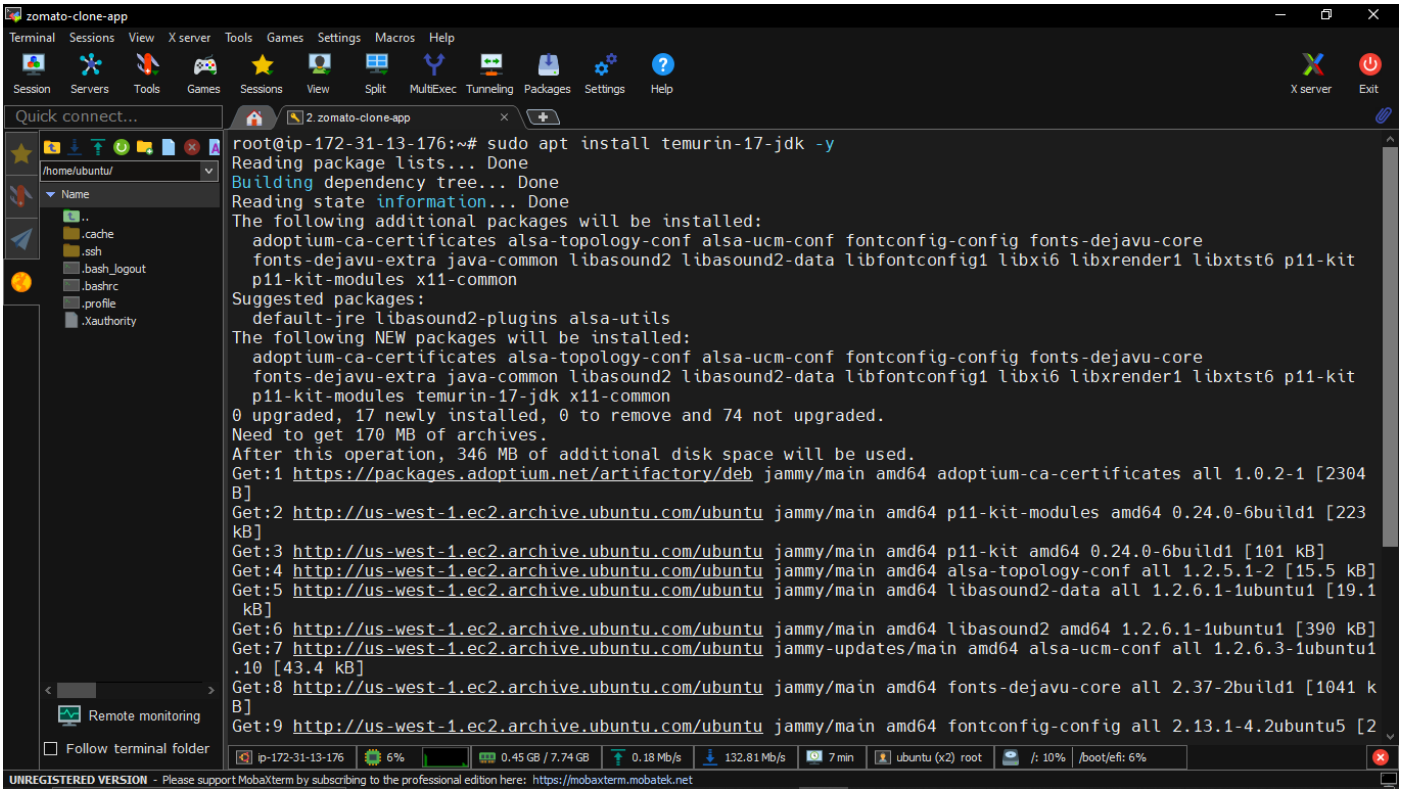
zomato-clone-app
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Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help X server Exit
Quick connect...
2. zomato-clone-app
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
Remote monitoring
Follow terminal folder
root@ip-172-31-13-176:~# sudo apt install temurin-17-jdk -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
adoptium-ca-certificates alsa-topology-conf alsa-ucm-conf fontconfig-config fonts-dejavu-core
fonts-dejavu-extra java-common libasound2 libasound2-data libfontconfig1 libxi6 libxrender1 libxtst6 p11-kit
p11-kit-modules x11-common
Suggested packages:
default-jre libasound2-plugins alsa-utils
The following NEW packages will be installed:
adoptium-ca-certificates alsa-topology-conf alsa-ucm-conf fontconfig-config fonts-dejavu-core
fonts-dejavu-extra java-common libasound2 libasound2-data libfontconfig1 libxi6 libxrender1 libxtst6 p11-kit
p11-kit-modules temurin-17-jdk x11-common
0 upgraded, 17 newly installed, 0 to remove and 74 not upgraded.
Need to get 170 MB of archives.
After this operation, 346 MB of additional disk space will be used.
Get:1 https://packages.adoptium.net/artifactory/deb jammy/main amd64 adoptium-ca-certificates all 1.0.2-1 [2304 B]
Get:2 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 p11-kit-modules amd64 0.24.0-6build1 [223 kB]
Get:3 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 p11-kit amd64 0.24.0-6build1 [101 kB]
Get:4 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 alsa-topology-conf all 1.2.5.1-2 [15.5 kB]
Get:5 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libasound2-data all 1.2.6.1-1ubuntu1 [19.1 kB]
Get:6 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libasound2 amd64 1.2.6.1-1ubuntu1 [390 kB]
Get:7 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 alsa-ucm-conf all 1.2.6.3-1ubuntu1.10 [43.4 kB]
Get:8 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 fonts-dejavu-core all 2.37-2build1 [1041 kB]
Get:9 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 fontconfig-config all 2.13.1-4.2ubuntu5 [2
ip-172-31-13-176 6% 0.45 GB / 7.74 GB 0.18 Mb/s 132.81 Mb/s 7 min ubuntu (x2) root /: 10% /boot/efi: 6%
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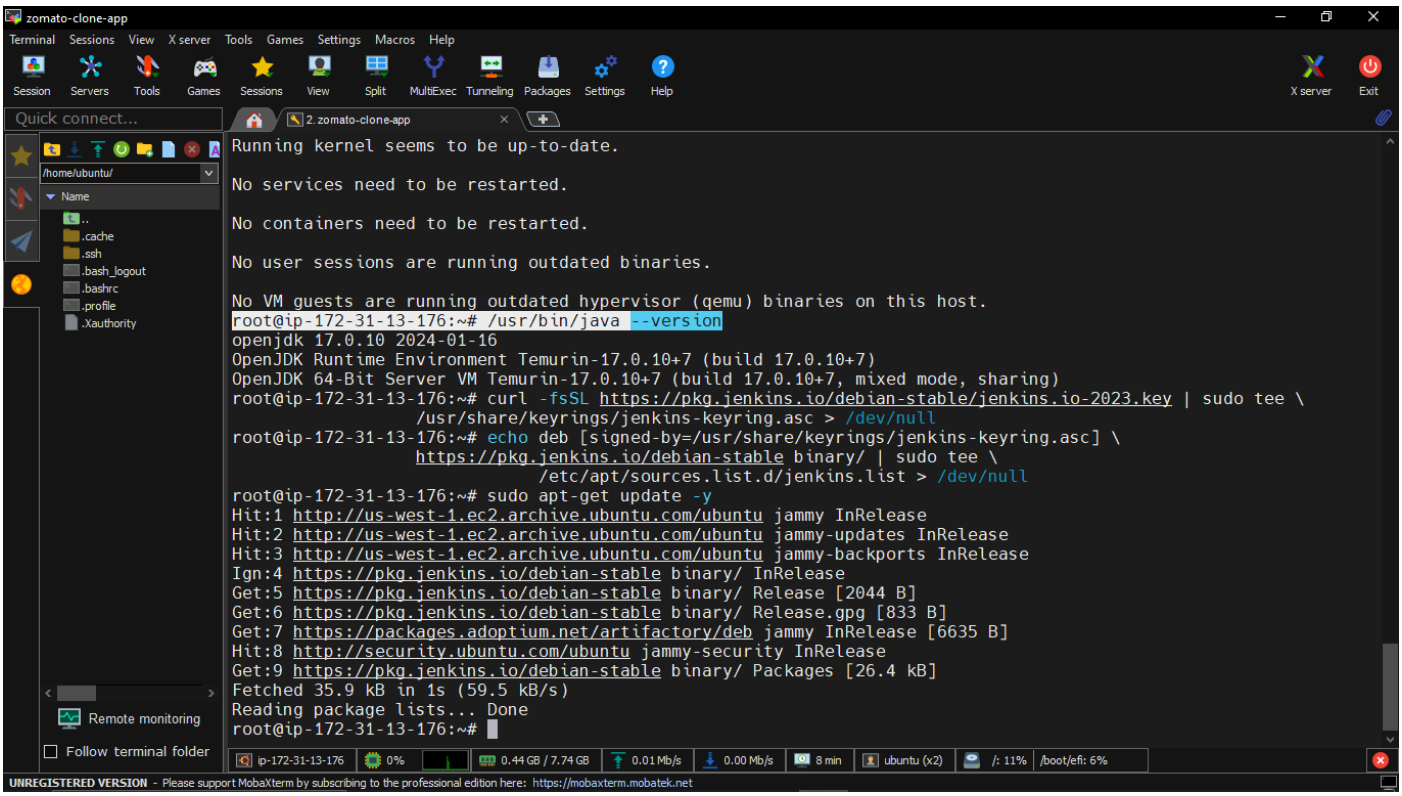
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Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help X server Exit
Quick connect...
2. zomato-clone-app
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
Remote monitoring
Follow terminal folder
Running kernel seems to be up-to-date.
No services need to be restarted.
No containers need to be restarted.
No user sessions are running outdated binaries.
No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@ip-172-31-13-176:~# /usr/bin/java --version
openjdk 17.0.10 2024-01-16
OpenJDK Runtime Environment Temurin-17.0.10+7 (build 17.0.10+7)
OpenJDK 64-Bit Server VM Temurin-17.0.10+7 (build 17.0.10+7, mixed mode, sharing)
root@ip-172-31-13-176:~# curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee \
/usr/share/keyrings/jenkins-keyring.asc > /dev/null
root@ip-172-31-13-176:~# echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \
https://pkg.jenkins.io/debian-stable binary/ | sudo tee \
/etc/apt/sources.list.d/jenkins.list > /dev/null
root@ip-172-31-13-176:~# sudo apt-get update -y
Hit:1 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Ign:4 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:5 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:6 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Get:7 https://packages.adoptium.net/artifactory/deb jammy InRelease [6635 B]
Hit:8 http://security.ubuntu.com/ubuntu jammy-security InRelease
Get:9 https://pkg.jenkins.io/debian-stable binary/ Packages [26.4 kB]
Fetched 35.9 kB in 1s (59.5 kB/s)
Reading package lists... Done
root@ip-172-31-13-176:~#
ip-172-31-13-176 0% 0.44 GB / 7.74 GB 0.01 Mb/s 0.00 Mb/s 8 min ubuntu (x2) /: 11% /boot/efi: 6%
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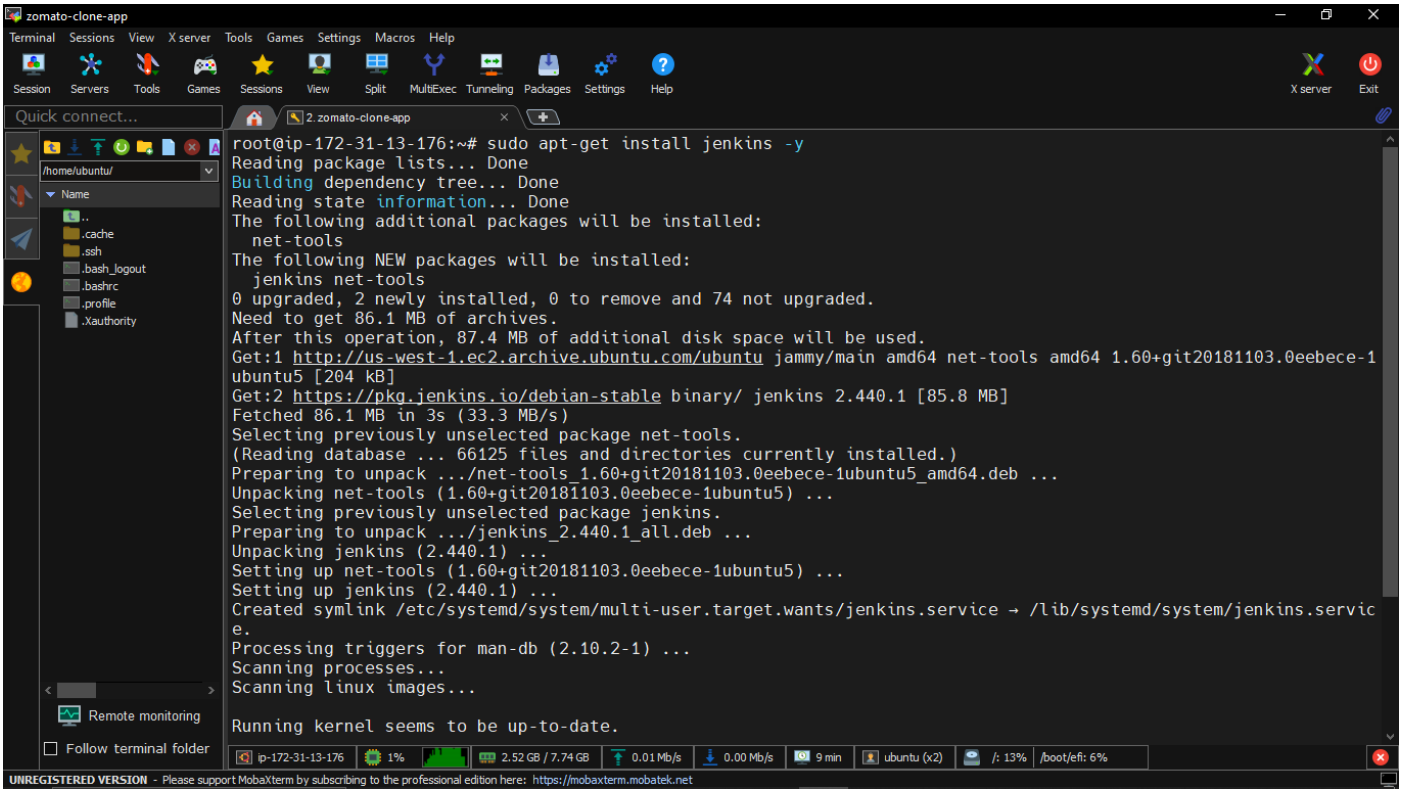
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Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help X server Exit
Quick connect...
2. zomato-clone-app
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
root@ip-172-31-13-176:~# sudo apt-get install jenkins -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
net-tools
The following NEW packages will be installed:
jenkins net-tools
0 upgraded, 2 newly installed, 0 to remove and 74 not upgraded.
Need to get 86.1 MB of archives.
After this operation, 87.4 MB of additional disk space will be used.
Get:1 http://us-west-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 net-tools amd64 1.60+git20181103.0eebece-1ubuntu5 [204 kB]
Get:2 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.440.1 [85.8 MB]
Fetched 86.1 MB in 3s (33.3 MB/s)
Selecting previously unselected package net-tools.
(Reading database ... 66125 files and directories currently installed.)
Preparing to unpack .../net-tools_1.60+git20181103.0eebece-1ubuntu5_amd64.deb ...
Unpacking net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Selecting previously unselected package jenkins.
Preparing to unpack .../jenkins_2.440.1_all.deb ...
Unpacking jenkins (2.440.1) ...
Setting up net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Setting up jenkins (2.440.1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /lib/systemd/system/jenkins.service.
Processing triggers for man-db (2.10.2-1) ...
Scanning processes...
Scanning linux images...
Running kernel seems to be up-to-date.
Remote monitoring
Follow terminal folder
ip-172-31-13-176 1% 2.52 GB / 7.74 GB 0.01 Mb/s 0.00 Mb/s 9 min ubuntu (x2) /: 13% /boot/efi: 6%
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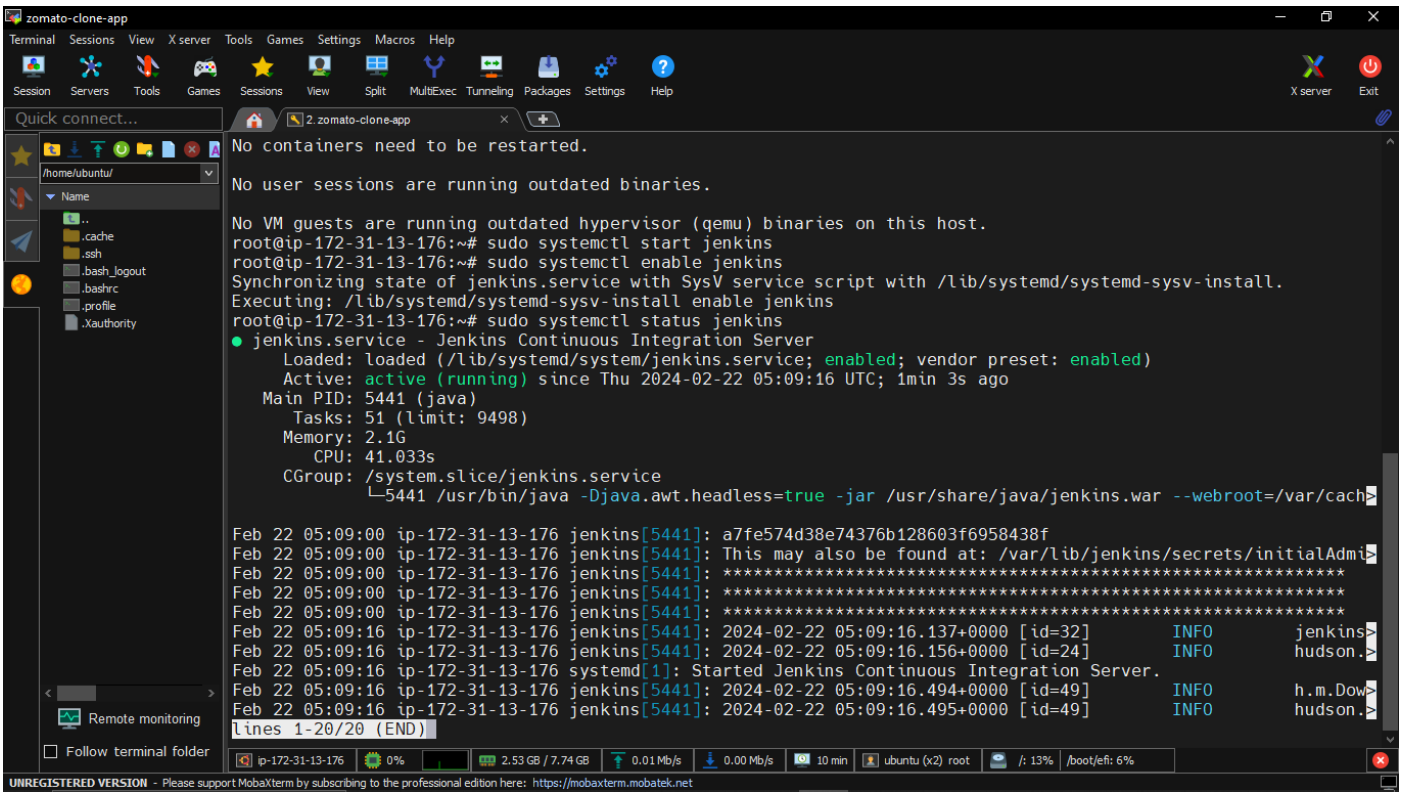
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2. zomato-clone-app
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
No containers need to be restarted.
No user sessions are running outdated binaries.
No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@ip-172-31-13-176:~# sudo systemctl start jenkins
root@ip-172-31-13-176:~# sudo systemctl enable jenkins
Synchronizing state of jenkins.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable jenkins
root@ip-172-31-13-176:~# sudo systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
Loaded: loaded (/lib/systemd/system/jenkins.service; enabled; vendor preset: enabled)
Active: active (running) since Thu 2024-02-22 05:09:16 UTC; 1min 3s ago
Main PID: 5441 (java)
Tasks: 51 (limit: 9498)
Memory: 2.1G
CPU: 41.033s
CGroup: /system.slice/jenkins.service
└─5441 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cach
Feb 22 05:09:00 ip-172-31-13-176 jenkins[5441]: a7fe574d38e74376b128603f6958438f
Feb 22 05:09:00 ip-172-31-13-176 jenkins[5441]: This may also be found at: /var/lib/jenkins/secrets/initialAdmi
Feb 22 05:09:00 ip-172-31-13-176 jenkins[5441]: **
Feb 22 05:09:00 ip-172-31-13-176 jenkins[5441]: **
Feb 22 05:09:00 ip-172-31-13-176 jenkins[5441]: **
Feb 22 05:09:16 ip-172-31-13-176 jenkins[5441]: 2024-02-22 05:09:16.137+0000 [id=32] INFO jenkins
Feb 22 05:09:16 ip-172-31-13-176 jenkins[5441]: 2024-02-22 05:09:16.156+0000 [id=24] INFO hudson.
Feb 22 05:09:16 ip-172-31-13-176 systemd[1]: Started Jenkins Continuous Integration Server.
Feb 22 05:09:16 ip-172-31-13-176 jenkins[5441]: 2024-02-22 05:09:16.494+0000 [id=49] INFO h.m.Dow
Feb 22 05:09:16 ip-172-31-13-176 jenkins[5441]: 2024-02-22 05:09:16.495+0000 [id=49] INFO hudson.
lines 1-20/20 (END)
Remote monitoring
Follow terminal folder
ip-172-31-13-176 0% 2.53 GB / 7.74 GB 0.01 Mb/s 0.00 Mb/s 10 min ubuntu (x2) root /: 13% /boot/efi: 6%
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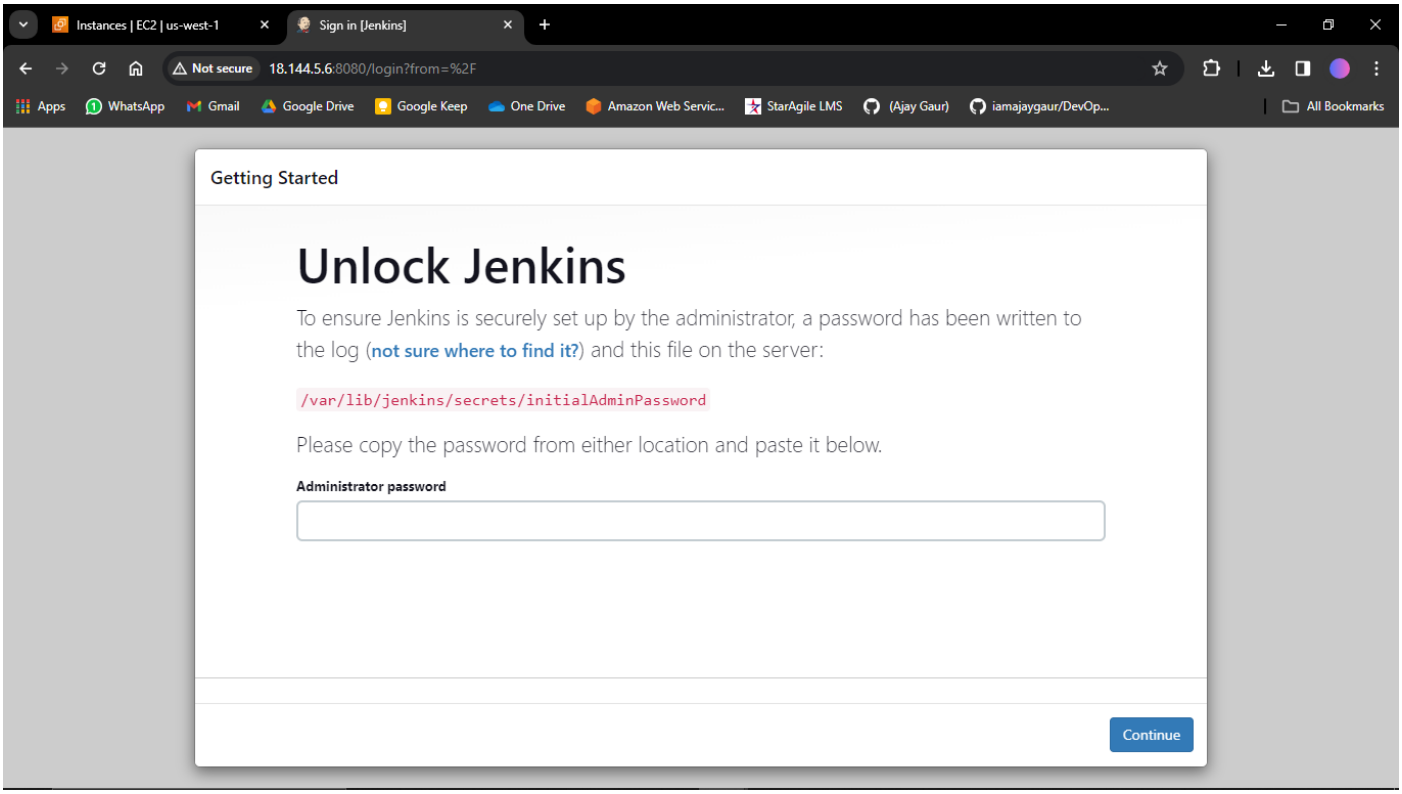
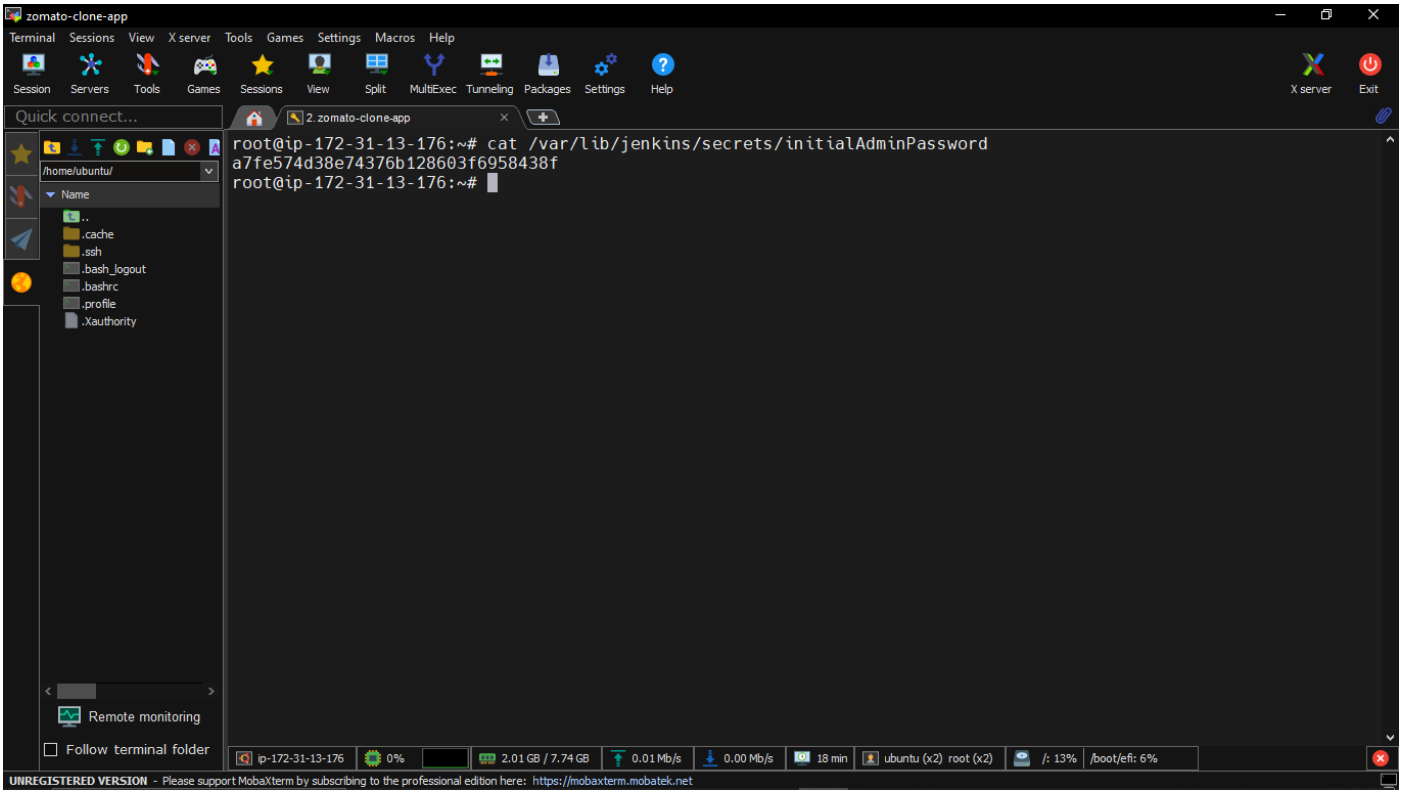
Once Jenkins is installed, you will need to go to your AWS EC2 Security Group and open Inbound Port 8080, since Jenkins works on Port 8080.

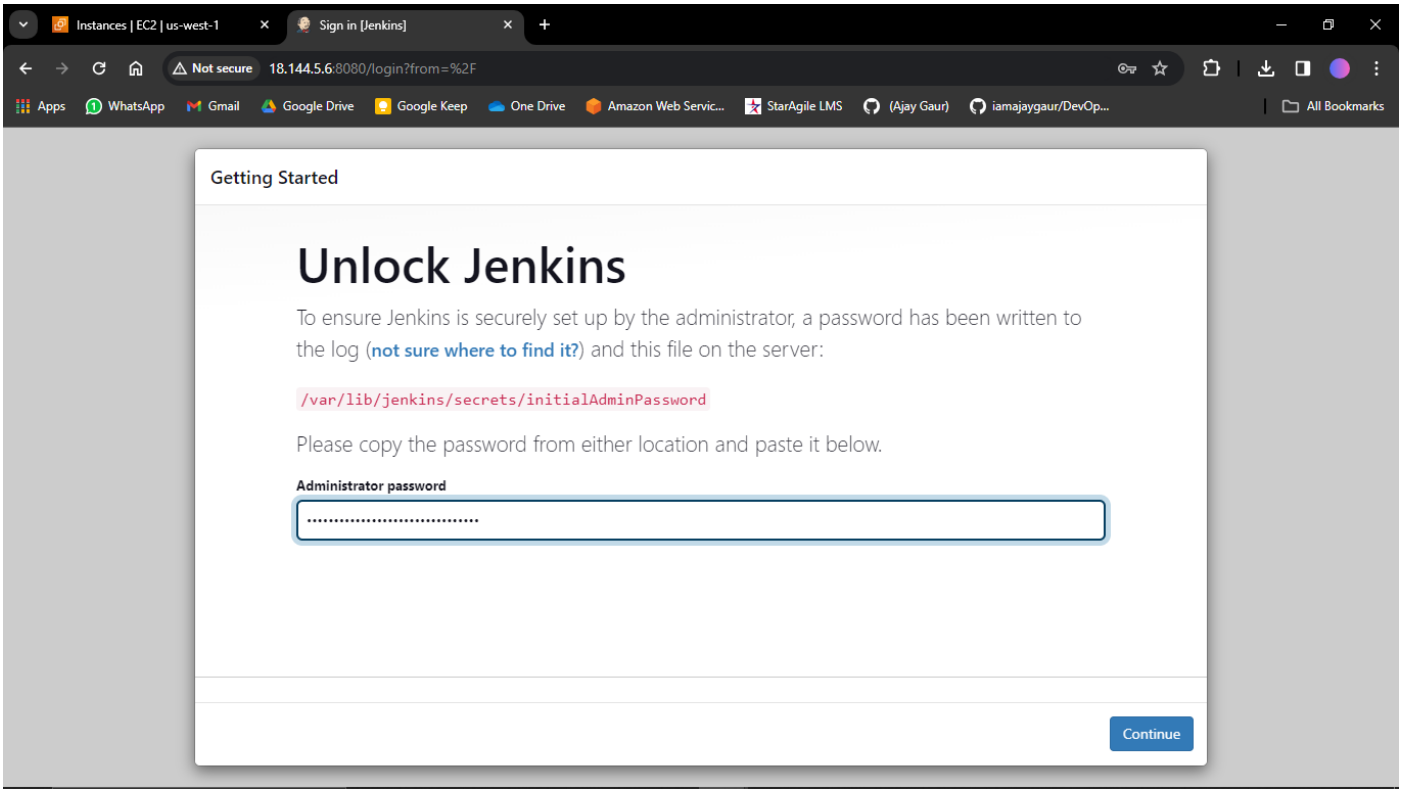
→ http://<public_ip>:8080/



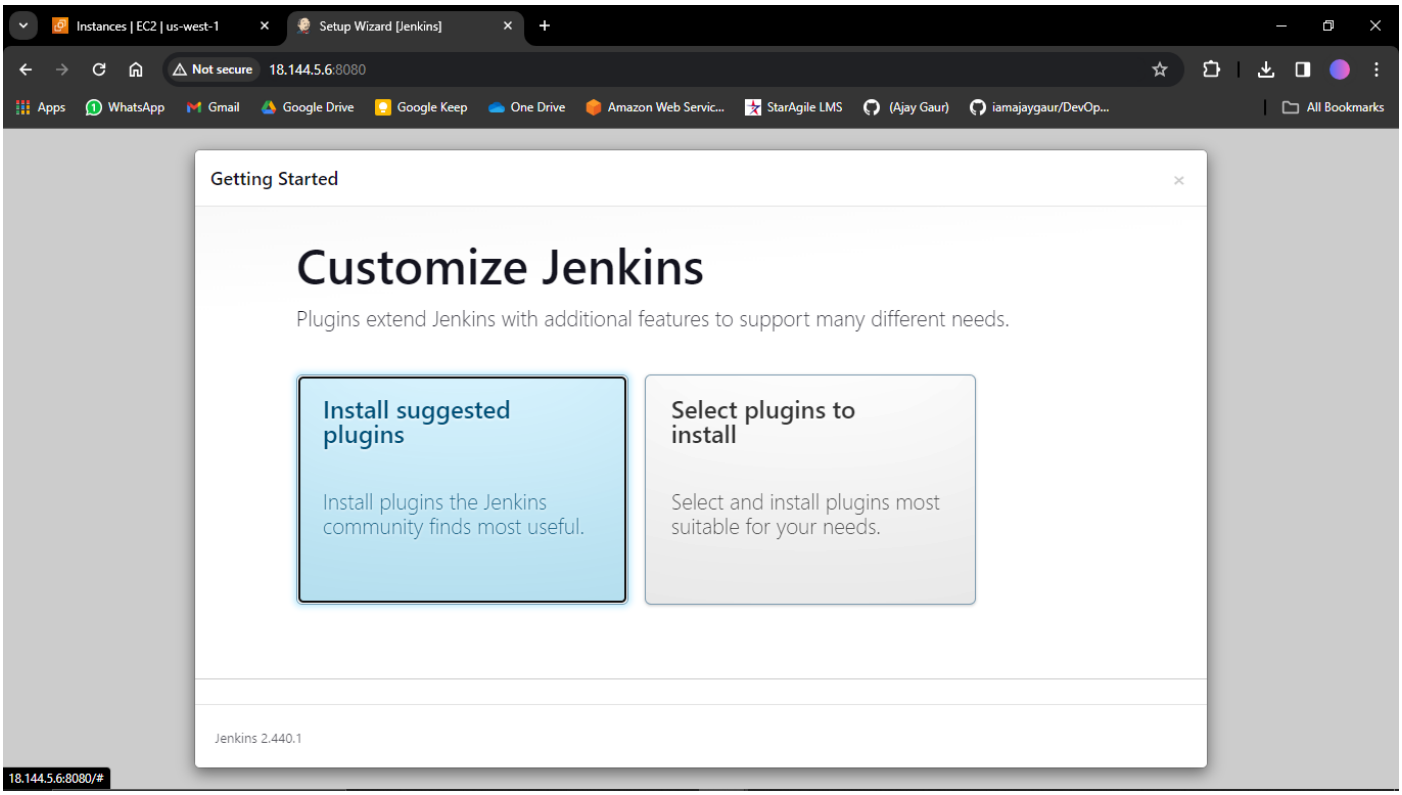
> cat /var/lib/jenkins/secrets/initialAdminPassword

→ Get the Password and put into Jenkins for login.

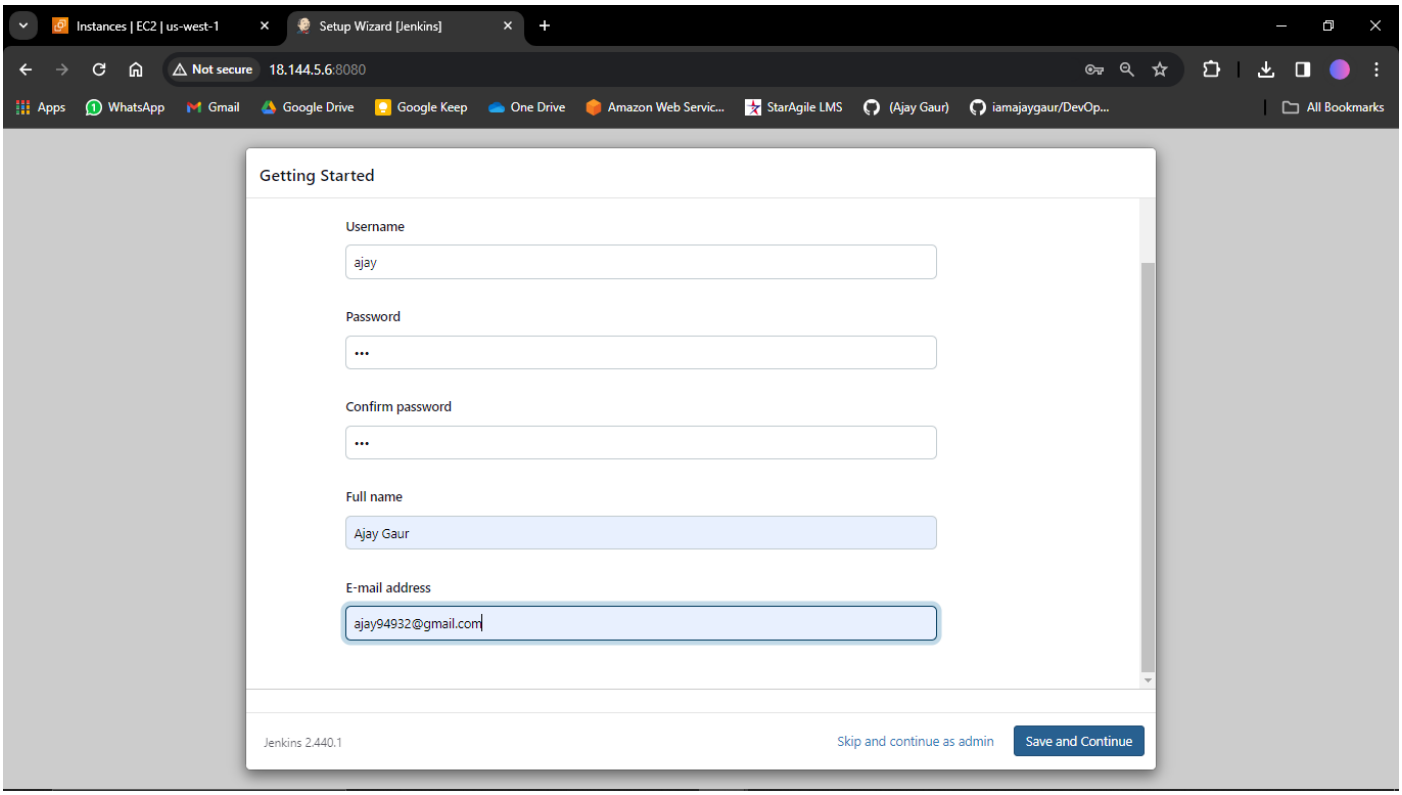


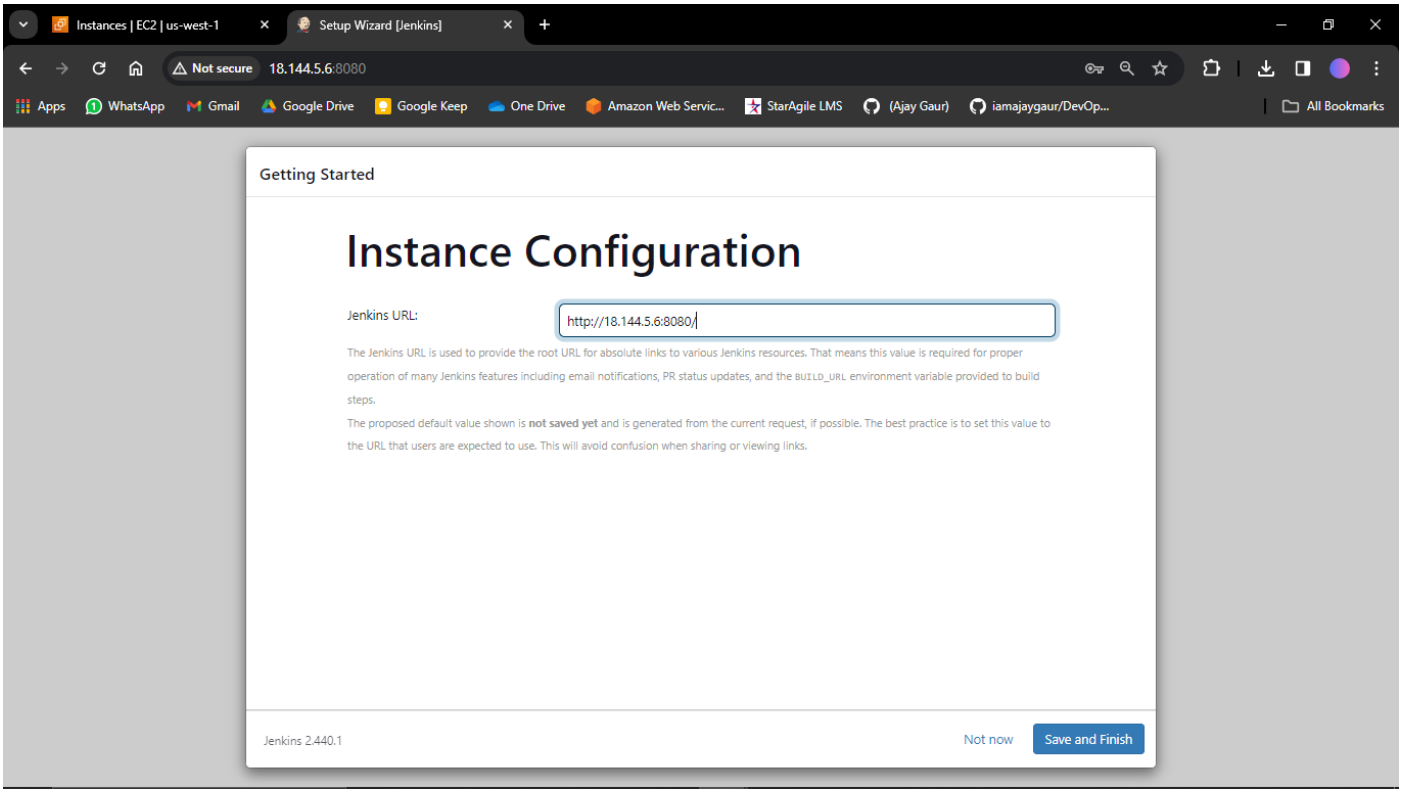


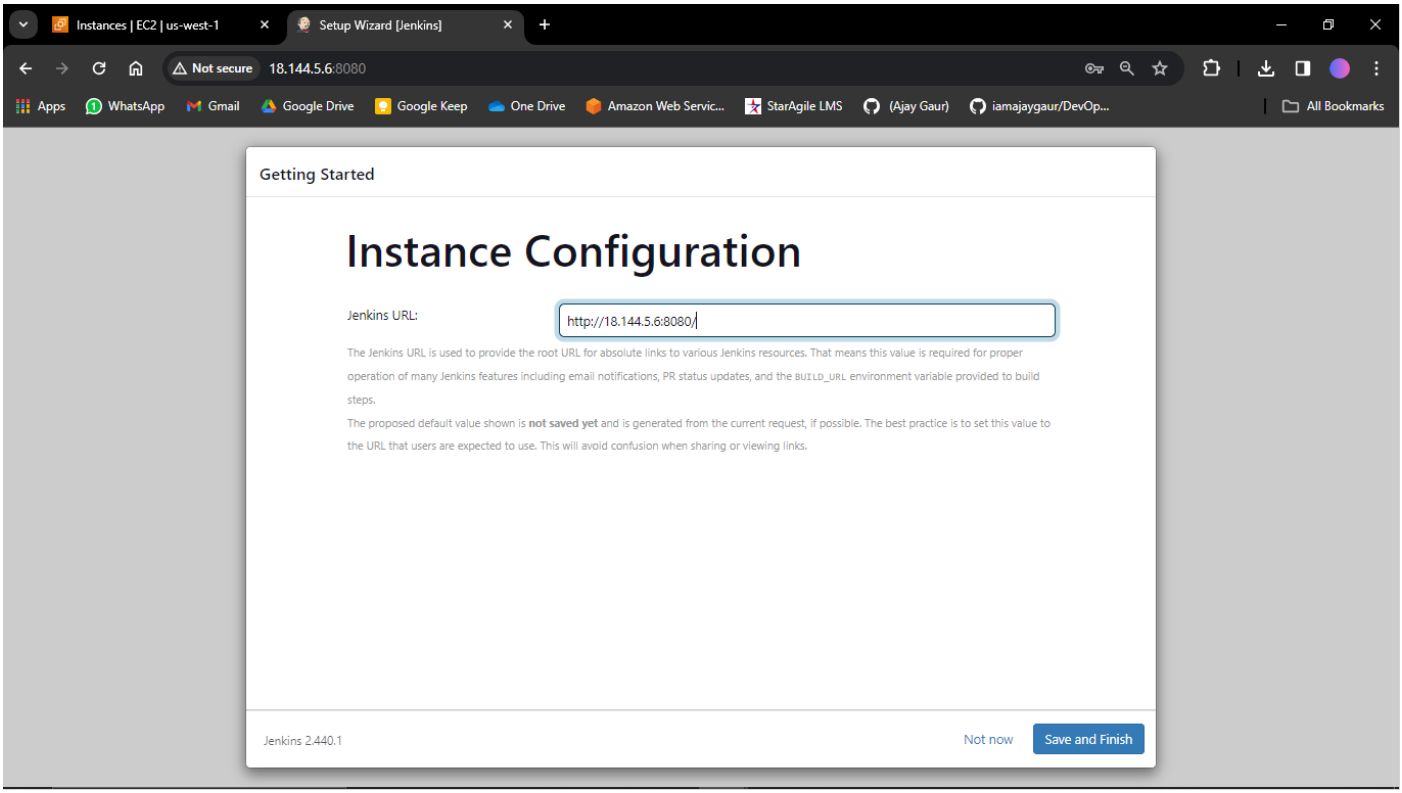
→ Install the suggested plugins.

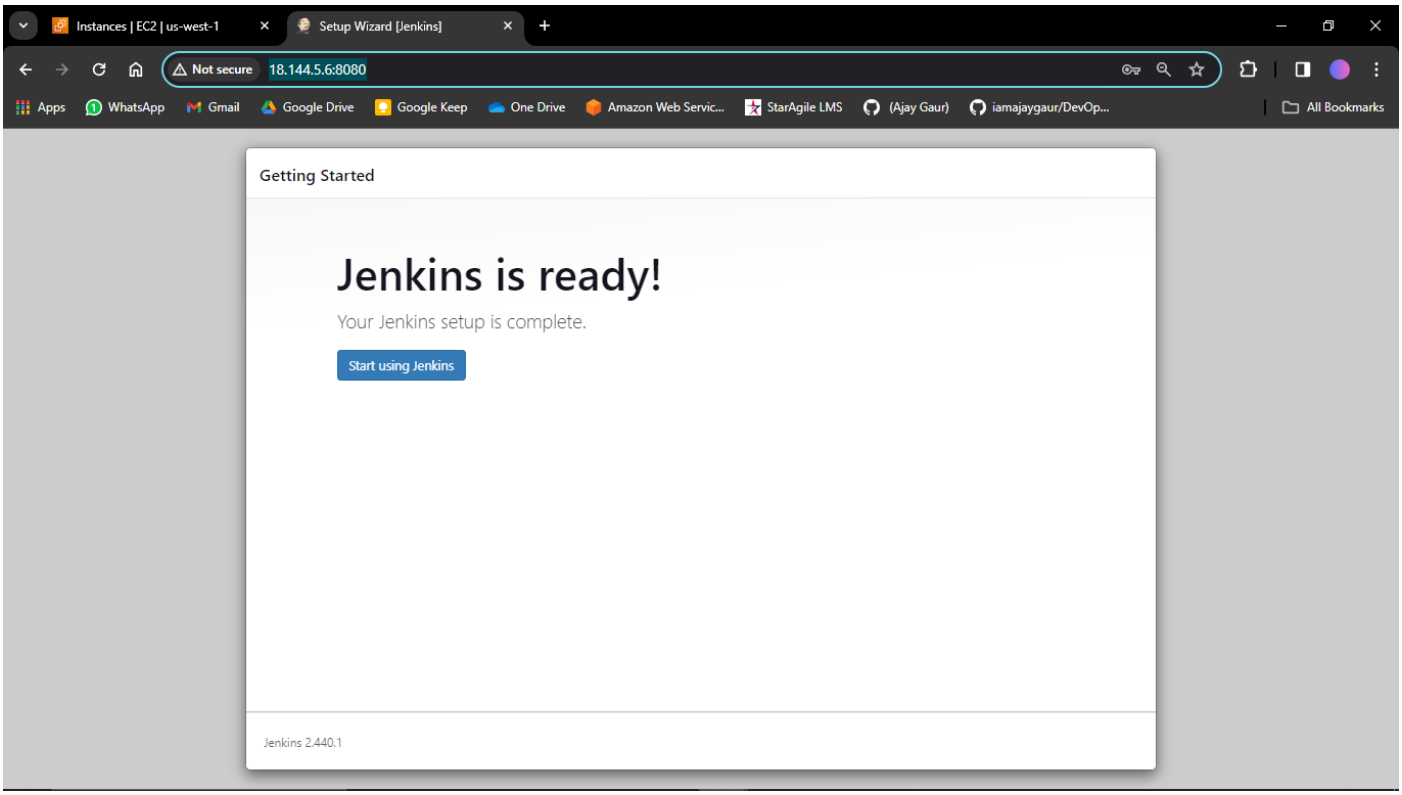


→ Create a user click on save and continue.

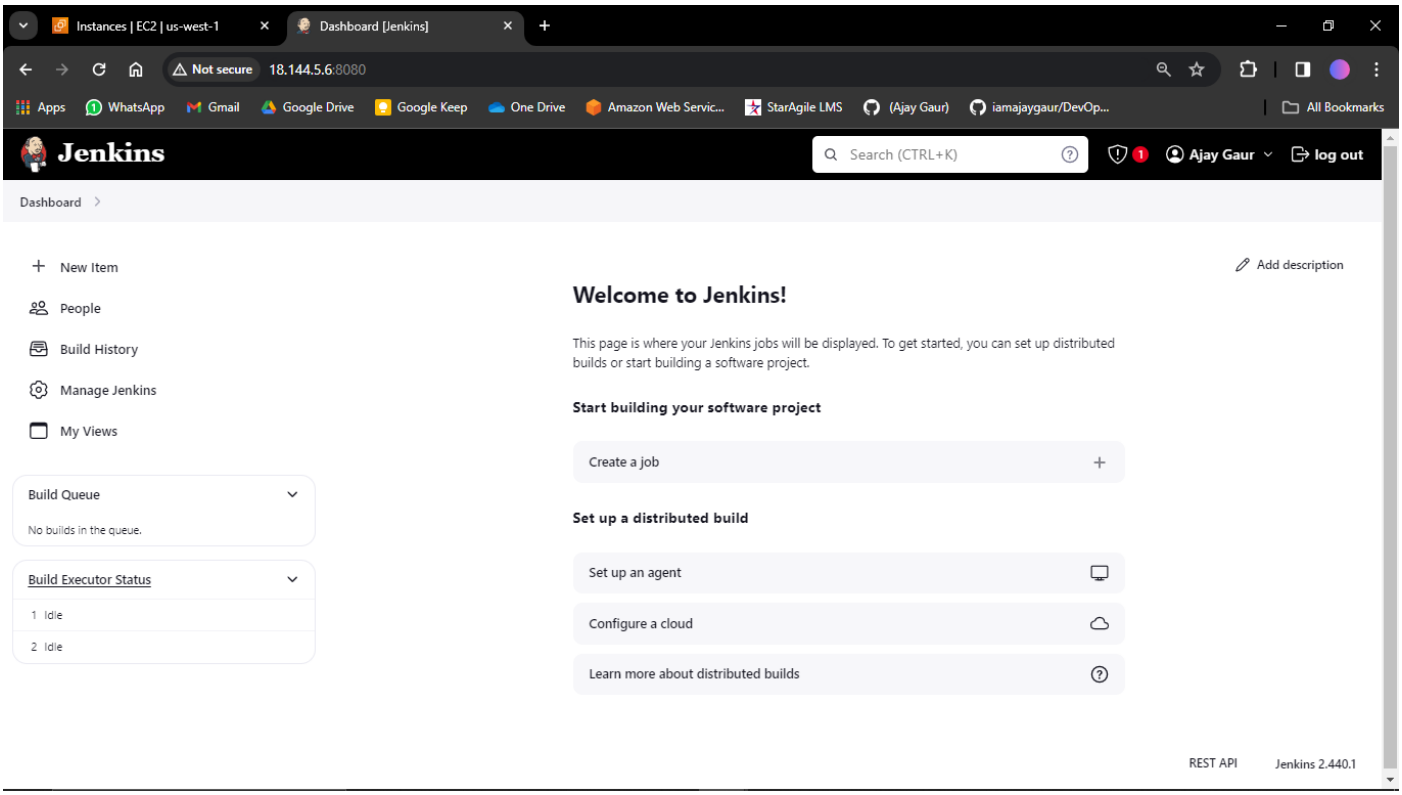





Instances | EC2 | us-west-1
Setup Wizard [Jenkins]
Not secure 18.144.5.6:8080
Apps WhatsApp Gmail Google Drive Google Keep One Drive Amazon Web Servic... StarAgile LMS (Ajay Gaur) iamajaygaur/DevOp... All Bookmarks
Getting Started
Instance Configuration
Jenkins URL:
http://18.144.5.6:8080/
The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD_URL environment variable provided to build steps.
The proposed default value shown is not saved yet and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.
Jenkins 2.440.1
Not now
Save and Finish

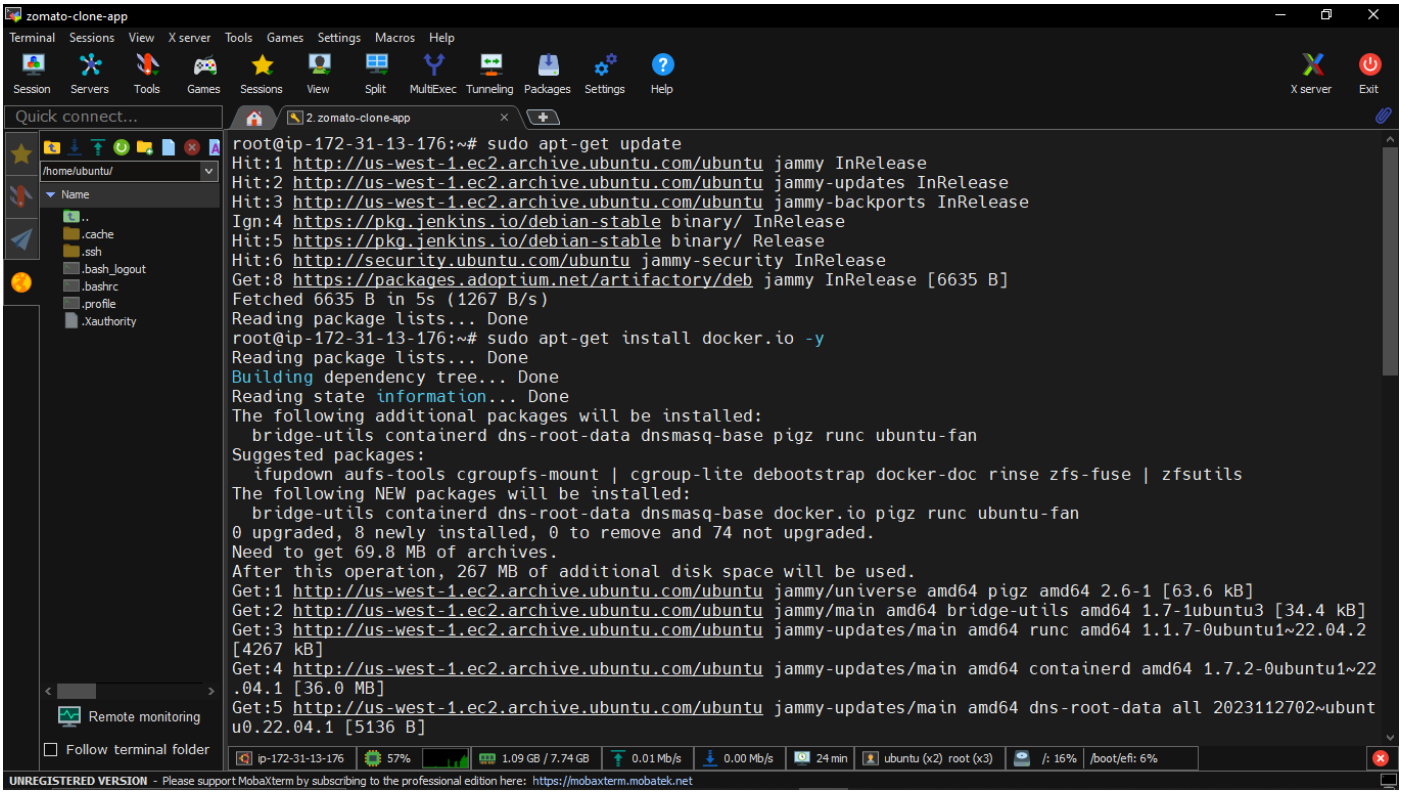

Instances | EC2 | us-west-1
Setup Wizard [Jenkins]
Not secure 18.144.5.6:8080
Apps WhatsApp Gmail Google Drive Google Keep One Drive Amazon Web Servic... StarAgile LMS (Ajay Gaur) iamajaygaur/DevOp... All Bookmarks
Getting Started
Jenkins is ready!
Your Jenkins setup is complete.
Start using Jenkins
Jenkins 2.440.1

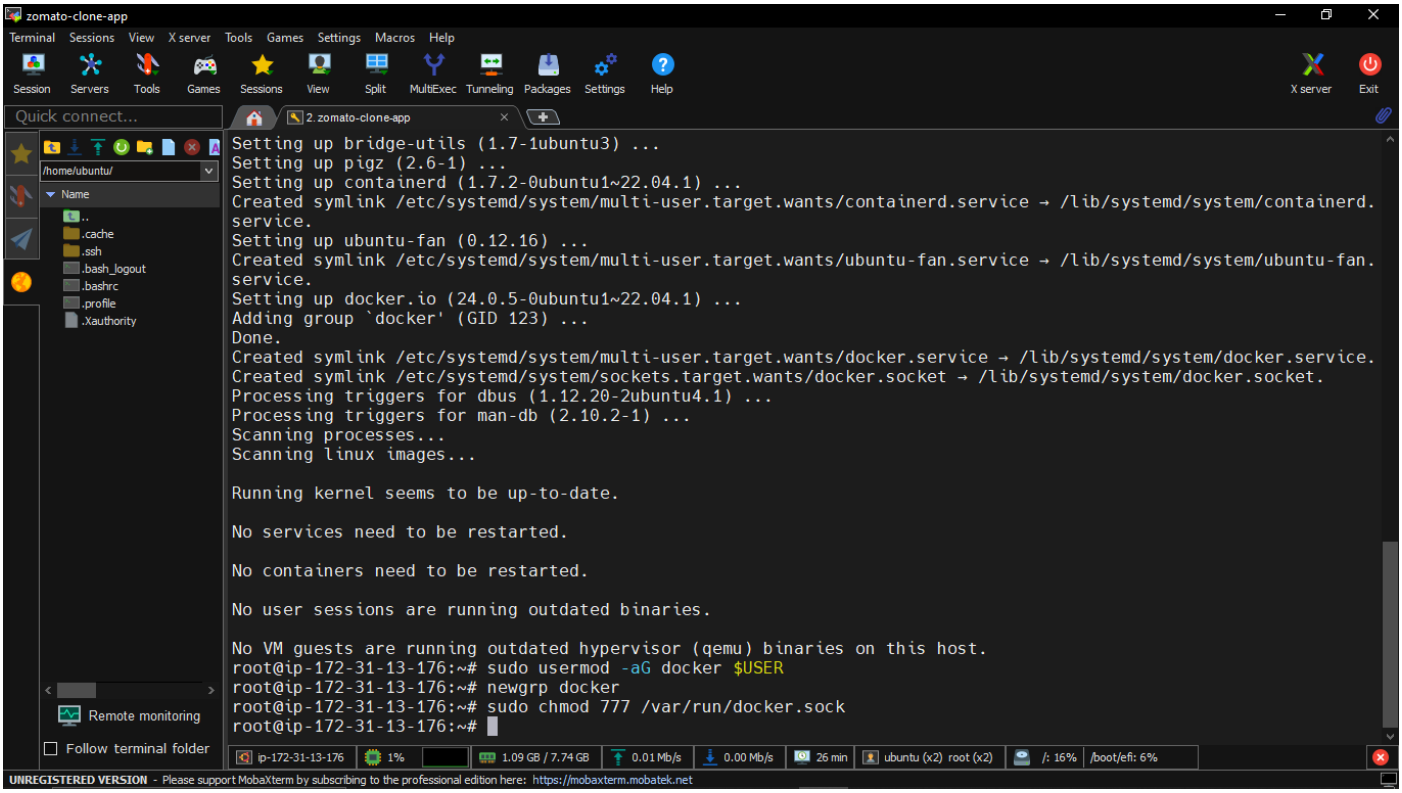
→ Jenkins Getting Started Screen.



→ To Install Docker

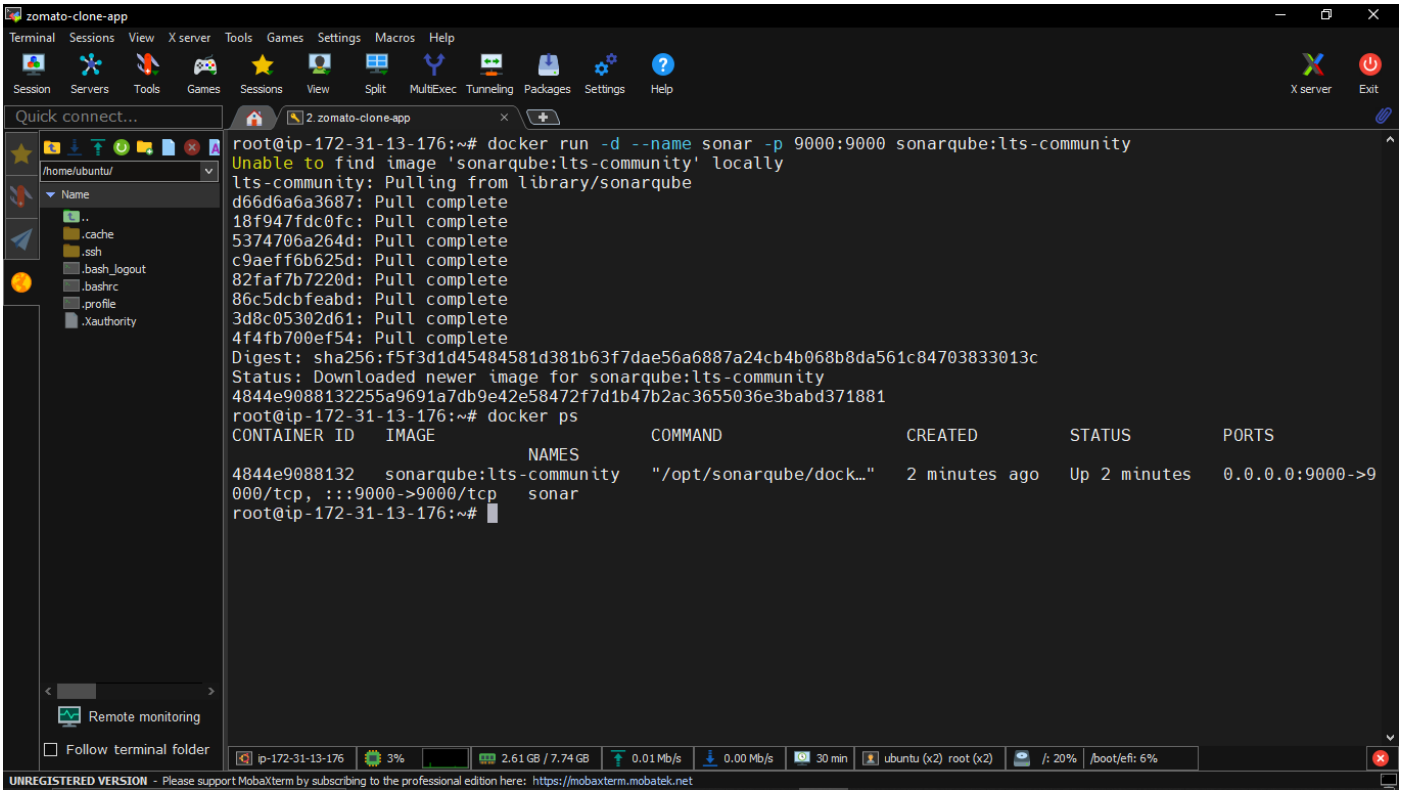
- sudo apt-get update
- sudo apt-get install docker.io -y
- sudo usermod -aG docker $USER #my case is ubuntu
- newgrp docker
- sudo chmod 777 /var/run/docker.sock





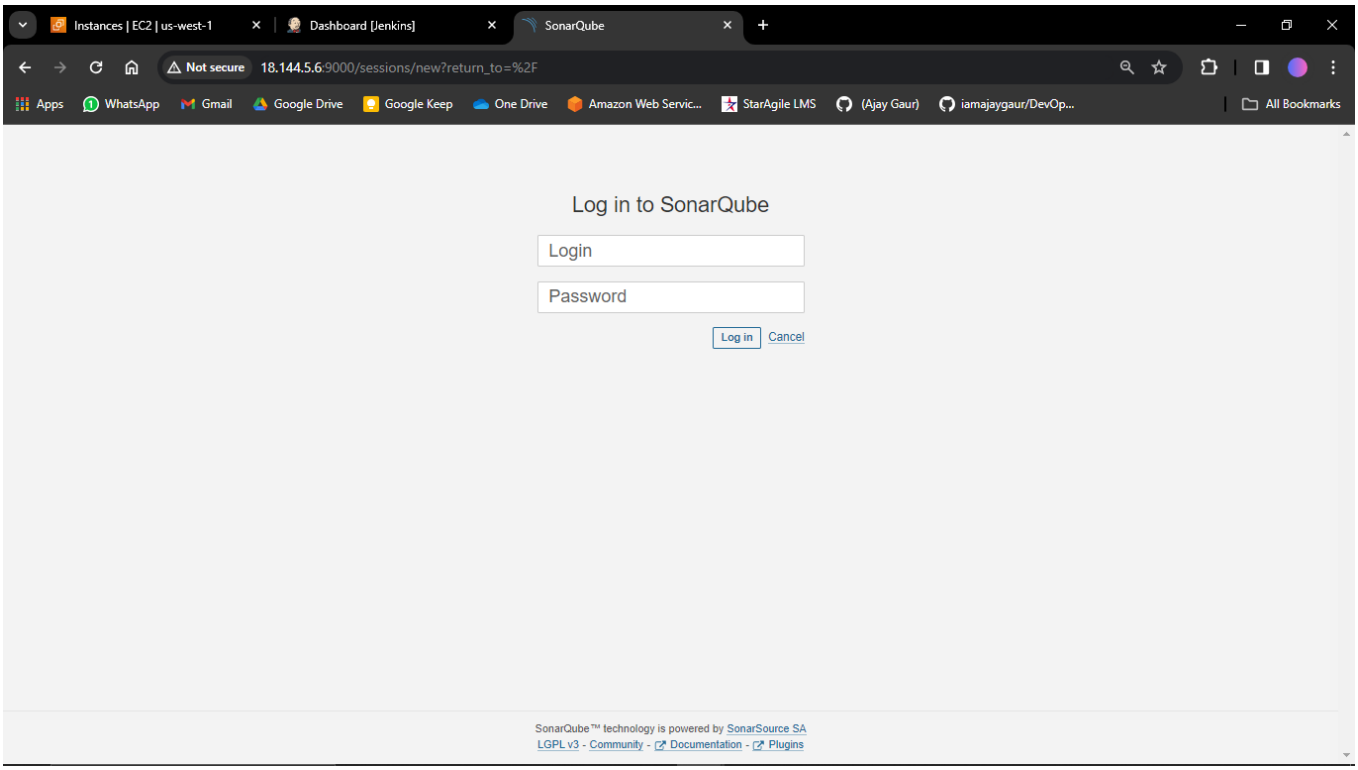
After the docker installation, we create a sonarqube container (Remember to add 9000 ports in the security group).

- docker run -d --name sonar -p 9000:9000 sonarqube:lts-community
- docker ps



→ Now our sonarqube is up and running

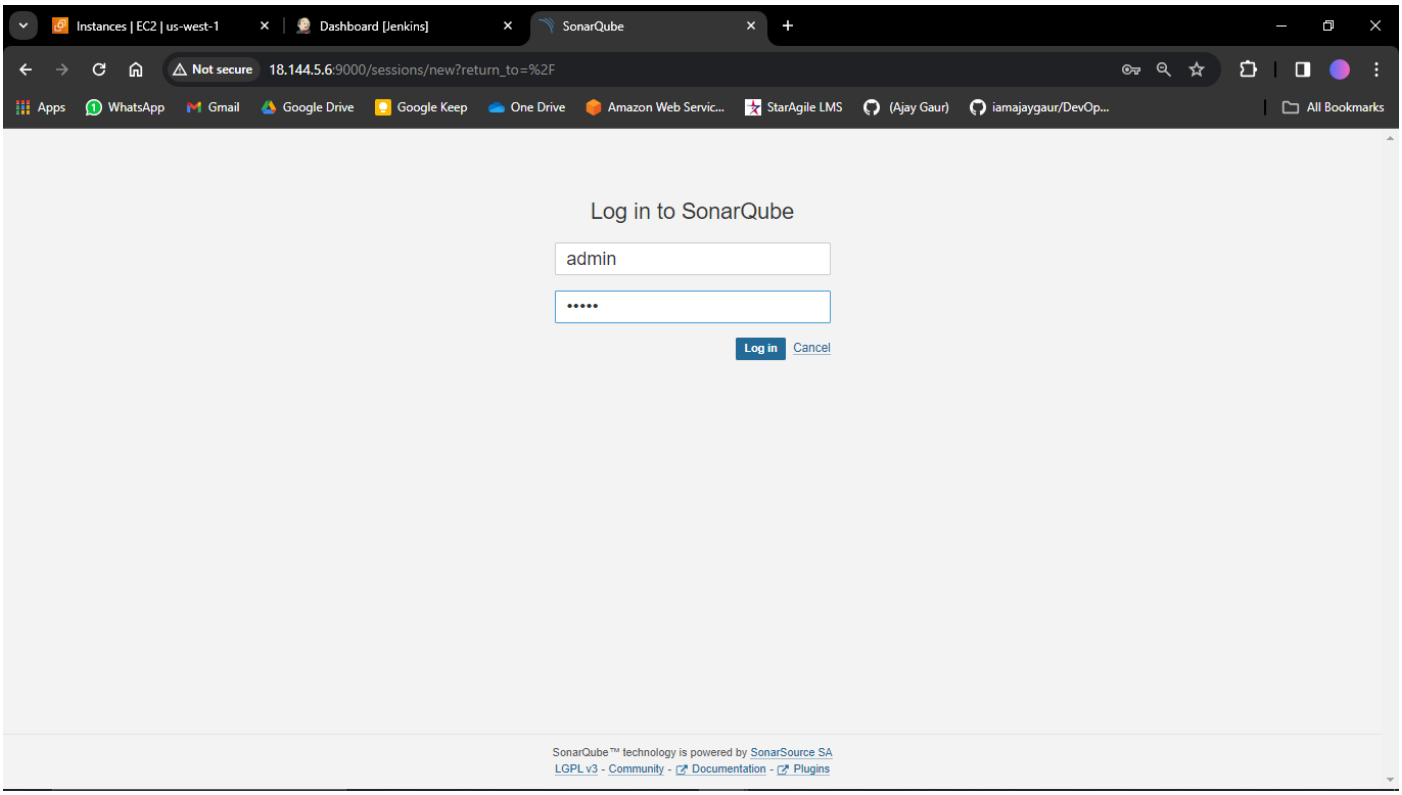
→ http://<public_ip>/sessions/new?return_to=%2F



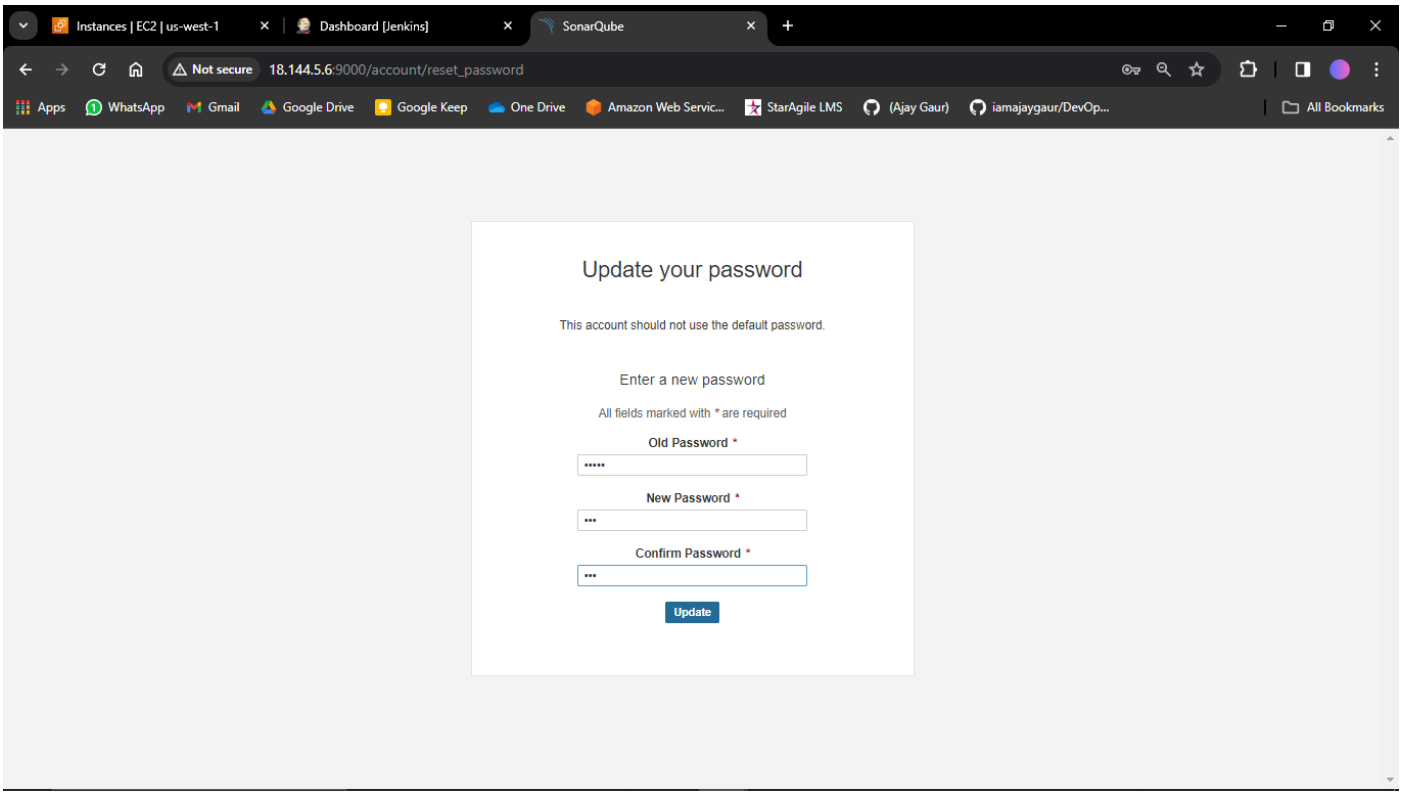
→ Enter username and password, click on login and change password

→ username - admin

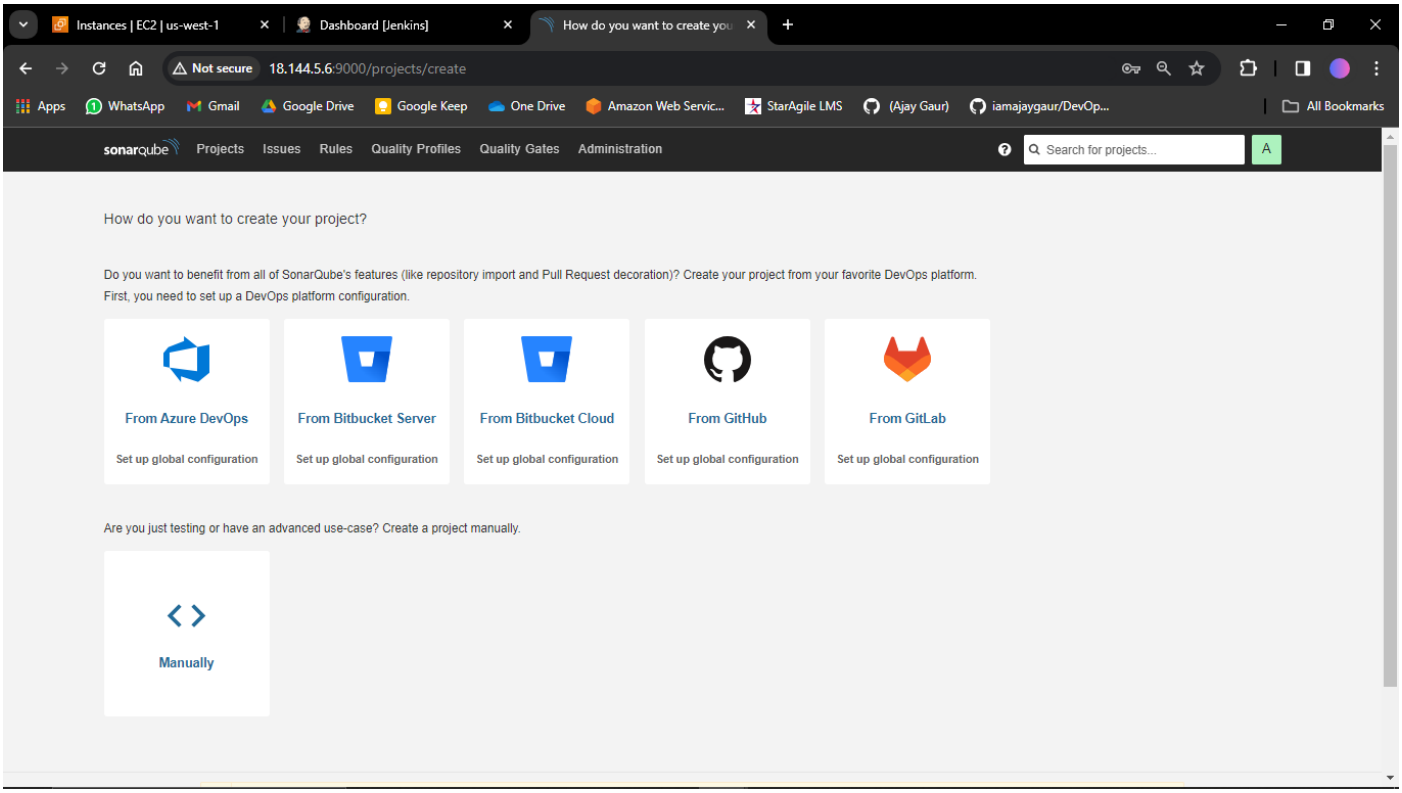
→ password – admin



→ Update New password

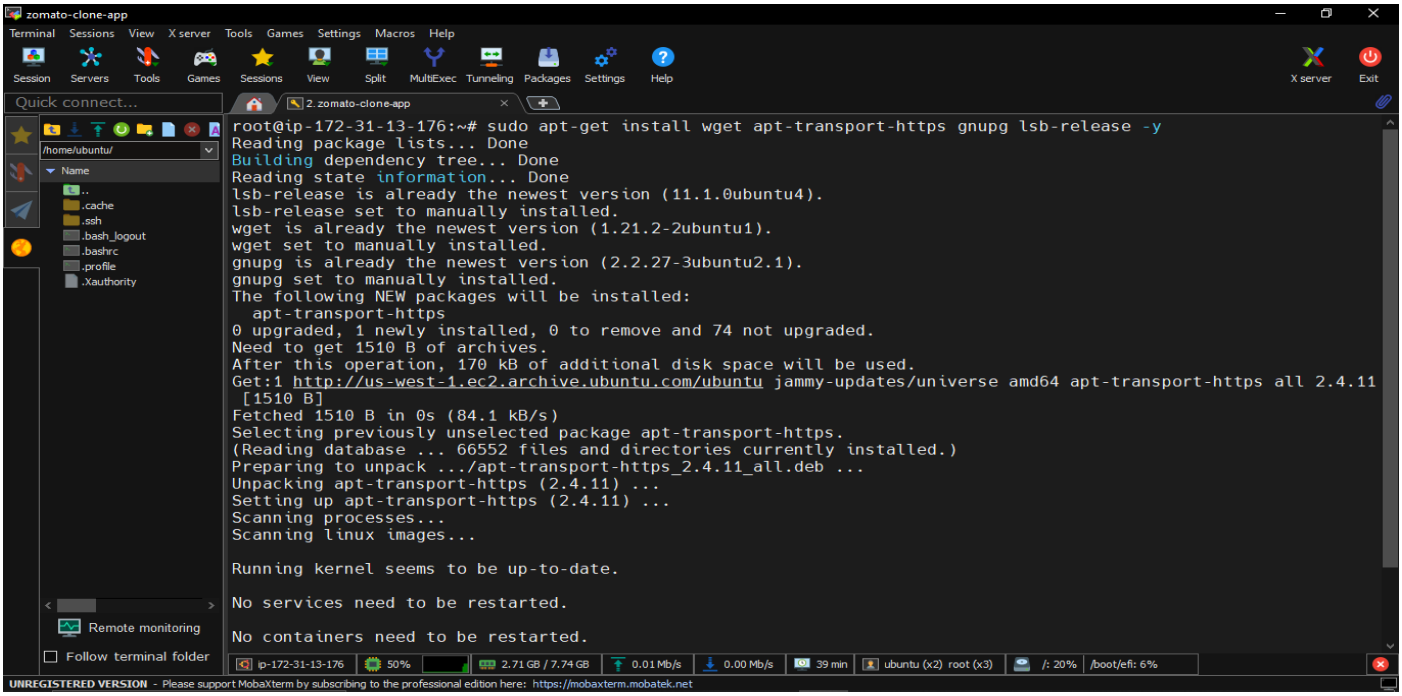


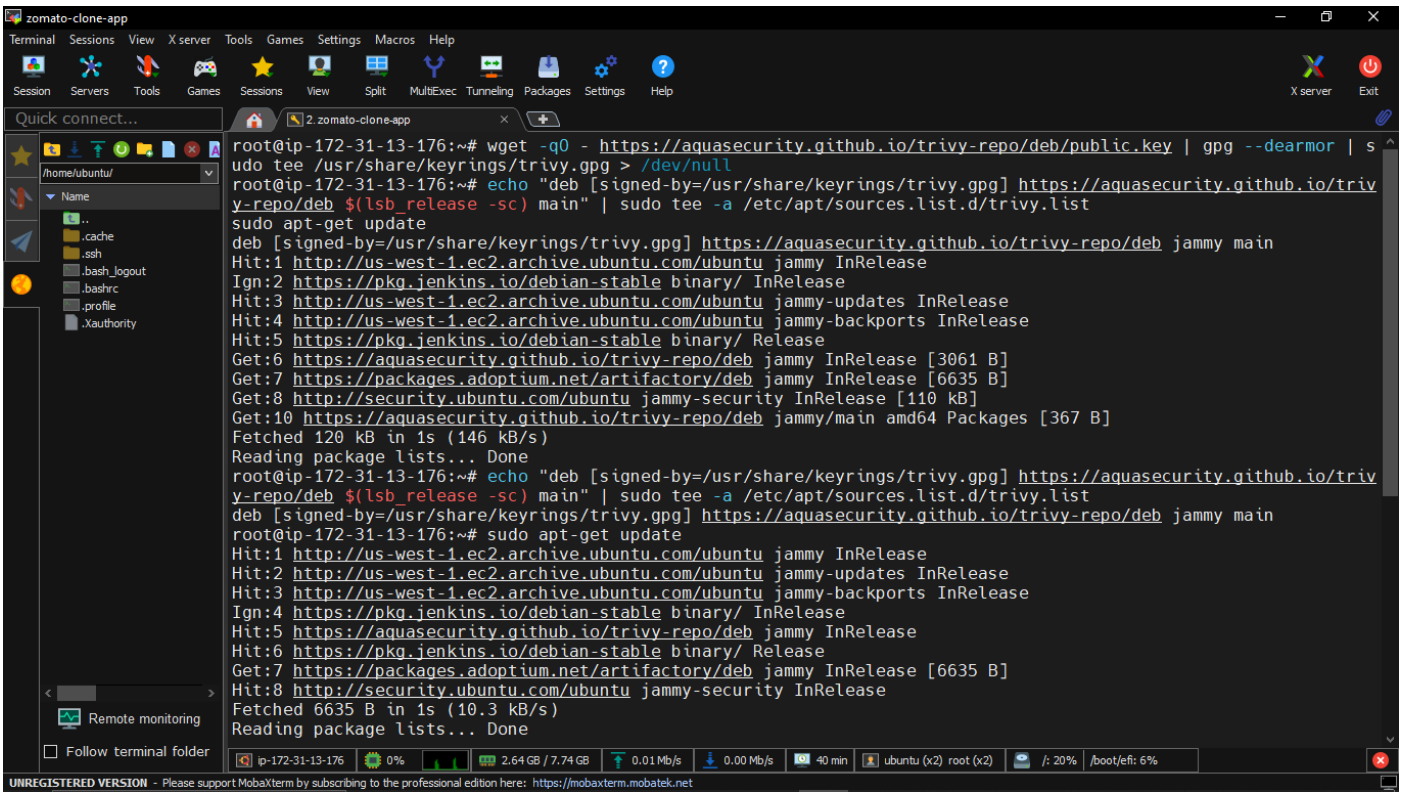
→ This is Sonar Dashboard.

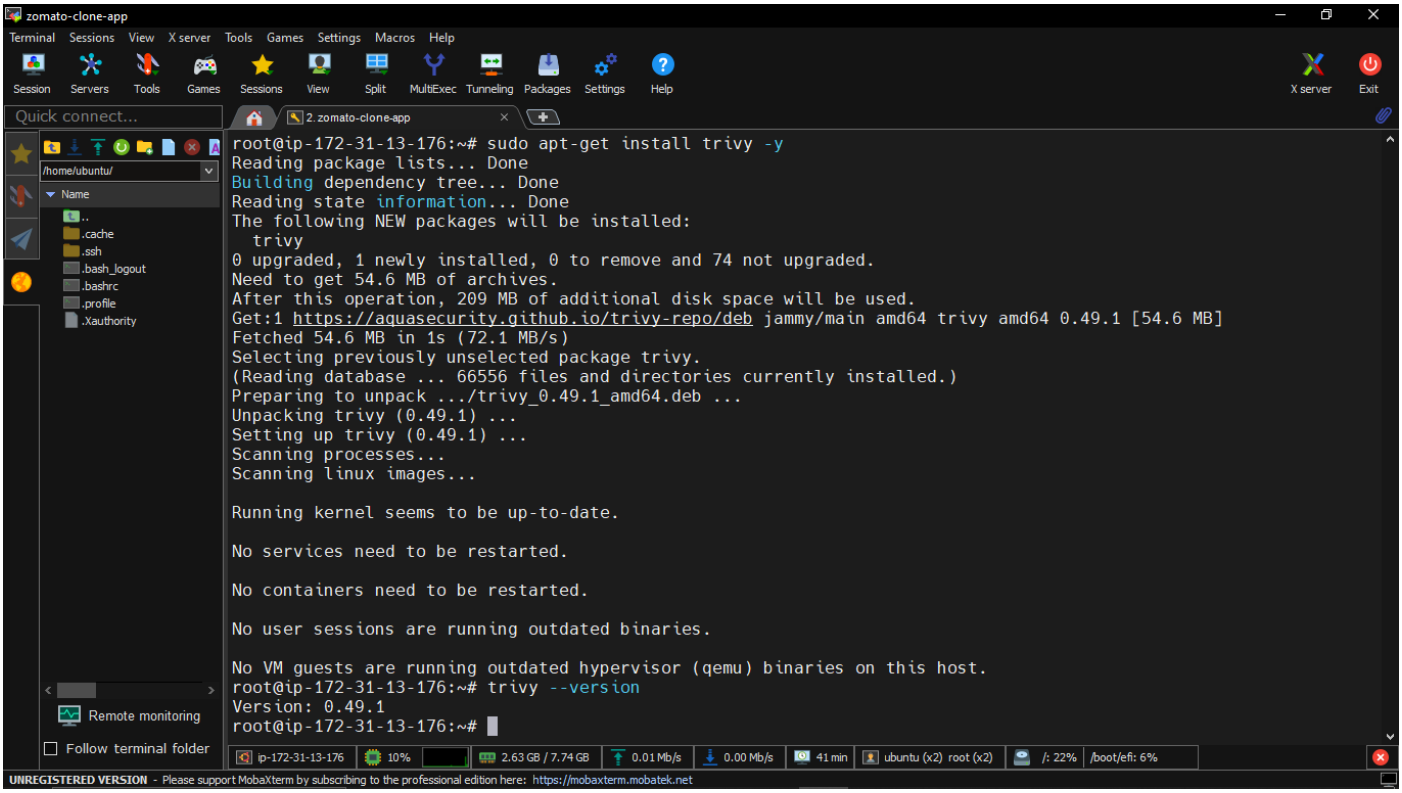


→ To Install Trivy

> sudo apt-get install wget apt-transport-https gnupg lsb-release -y
> wget -qO - https://aquasecurity.github.io/trivy-repo/deb/public.key | gpg --dearmor | sudo tee /usr/share/keyrings/trivy.gpg > /dev/null
> echo "deb [signed-by=/usr/share/keyrings/trivy.gpg] https://aquasecurity.github.io/trivy-repo/deb $(lsb_release -sc) main" | sudo tee -a /etc/apt/sources.list.d/trivy.list
> sudo apt-get update
> sudo apt-get install trivy -y







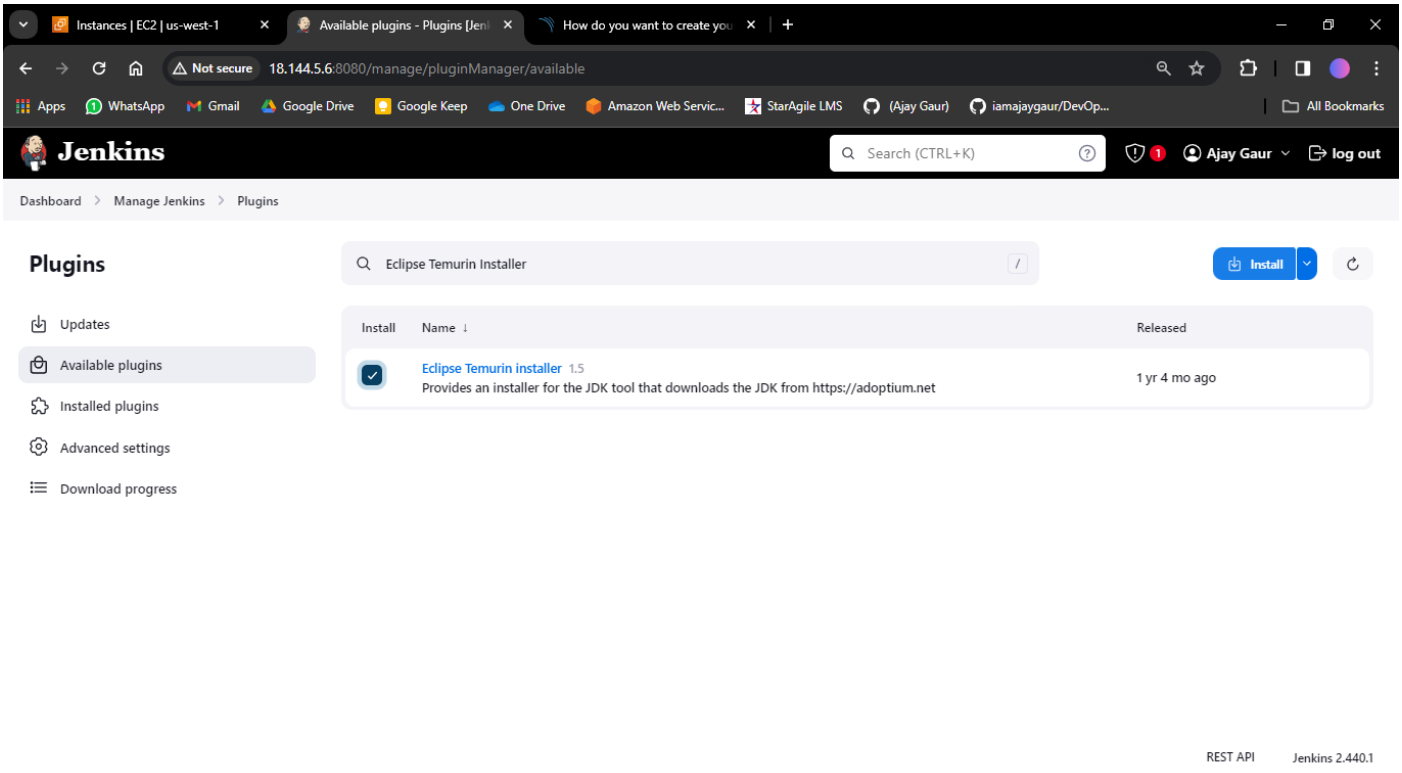
→ Next, we will log in to Jenkins and start to configure our Pipeline in Jenkins.

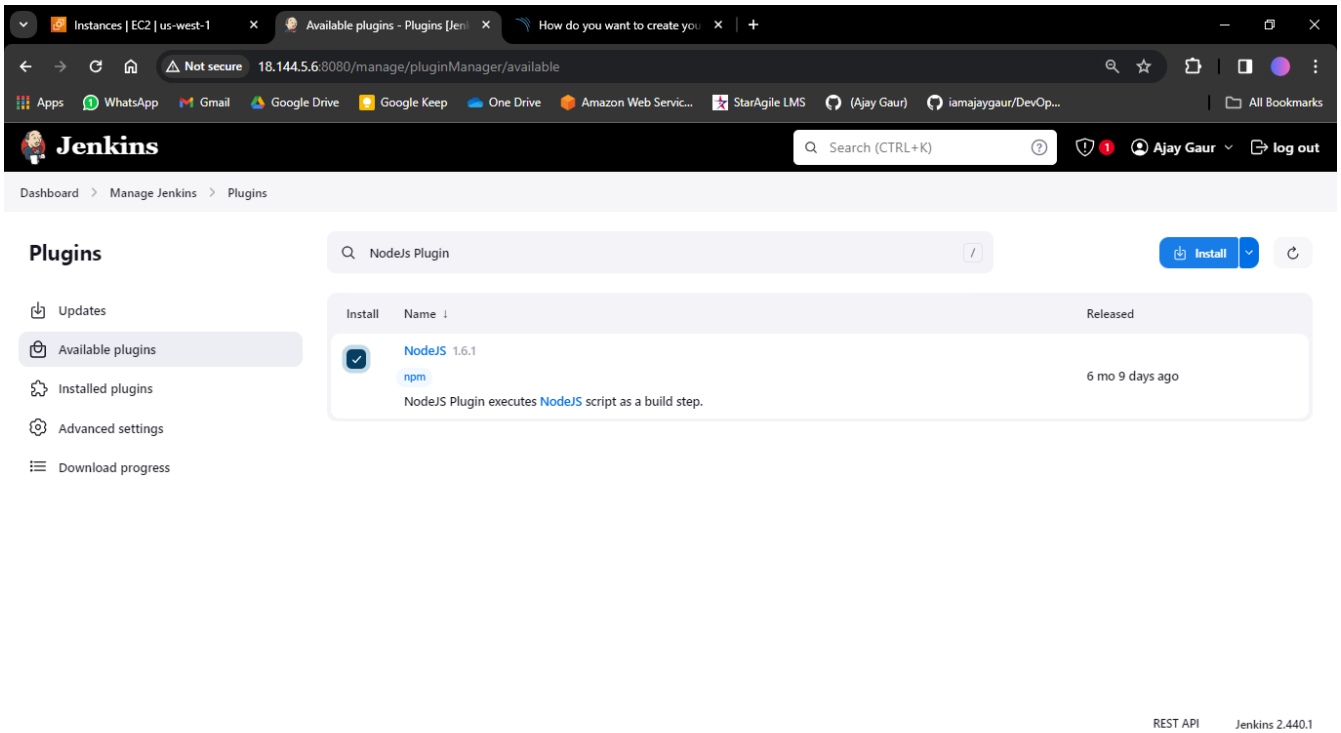
Step 3 - Install Plugins like JDK, Sonarqube Scanner, NodeJs, OWASP Dependency Check

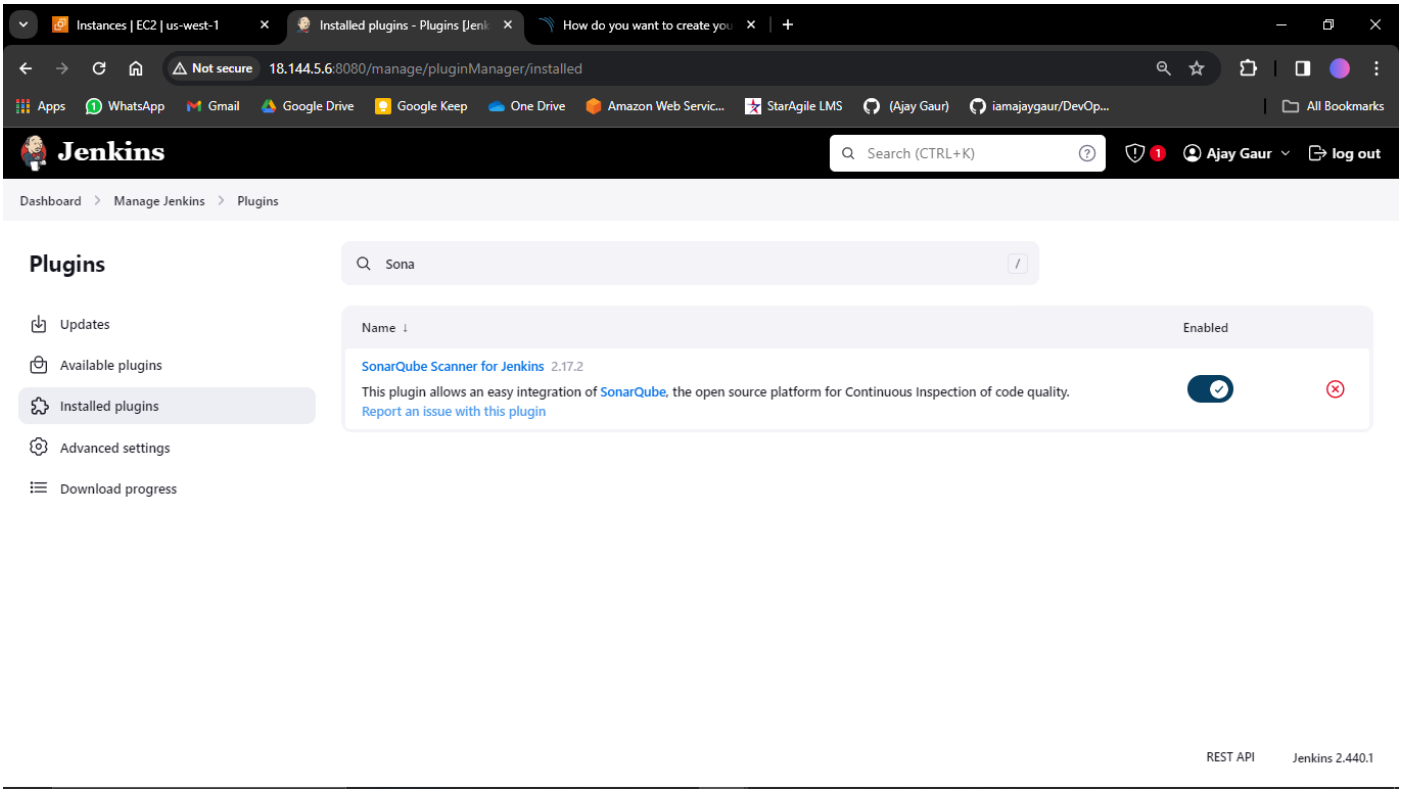
→ Goto Manage Jenkins →Plugins → Available Plugins

Install below plugins

1. Eclipse Temurin Installer (Install without restart)
2. SonarQube Scanner (Install without restart)
3. NodeJs Plugin (Install Without restart)

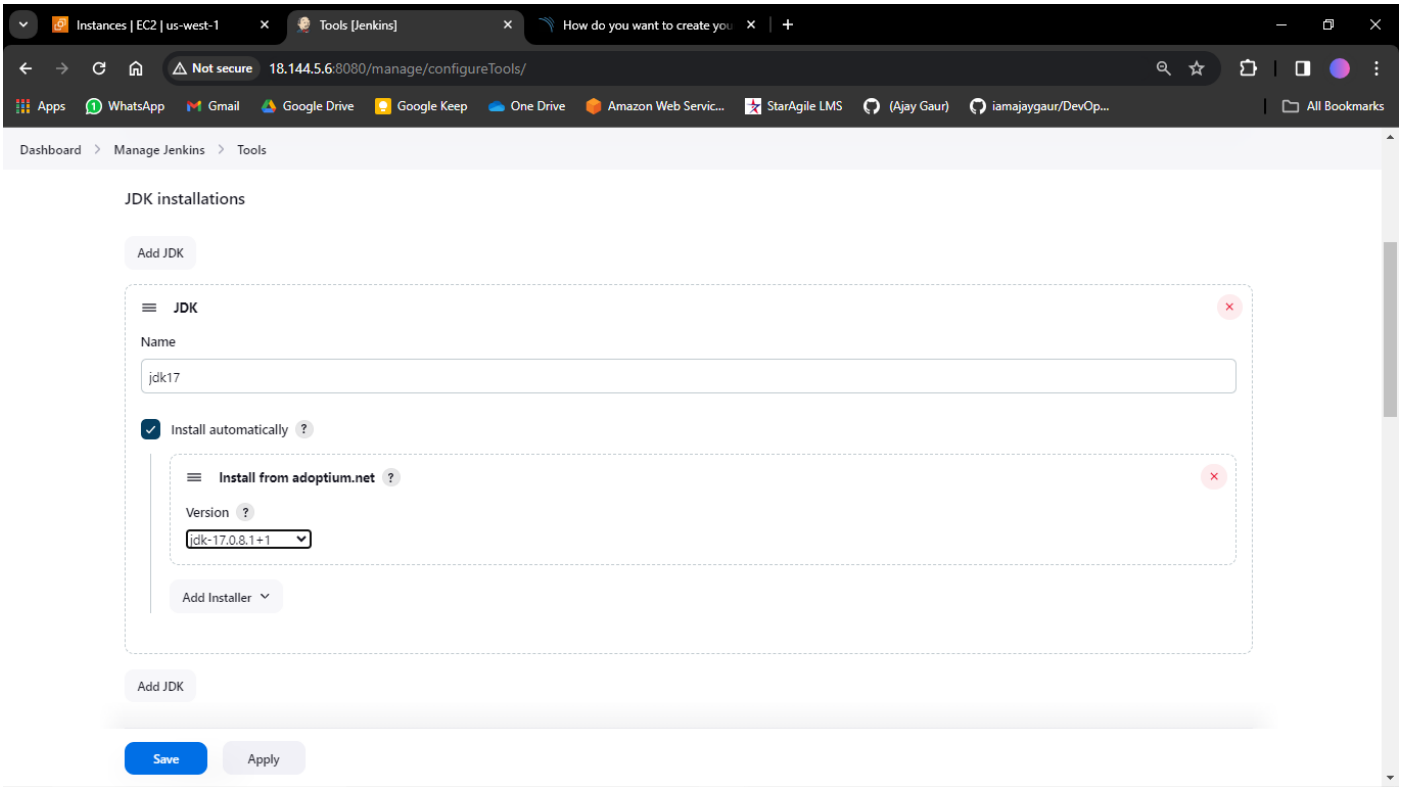


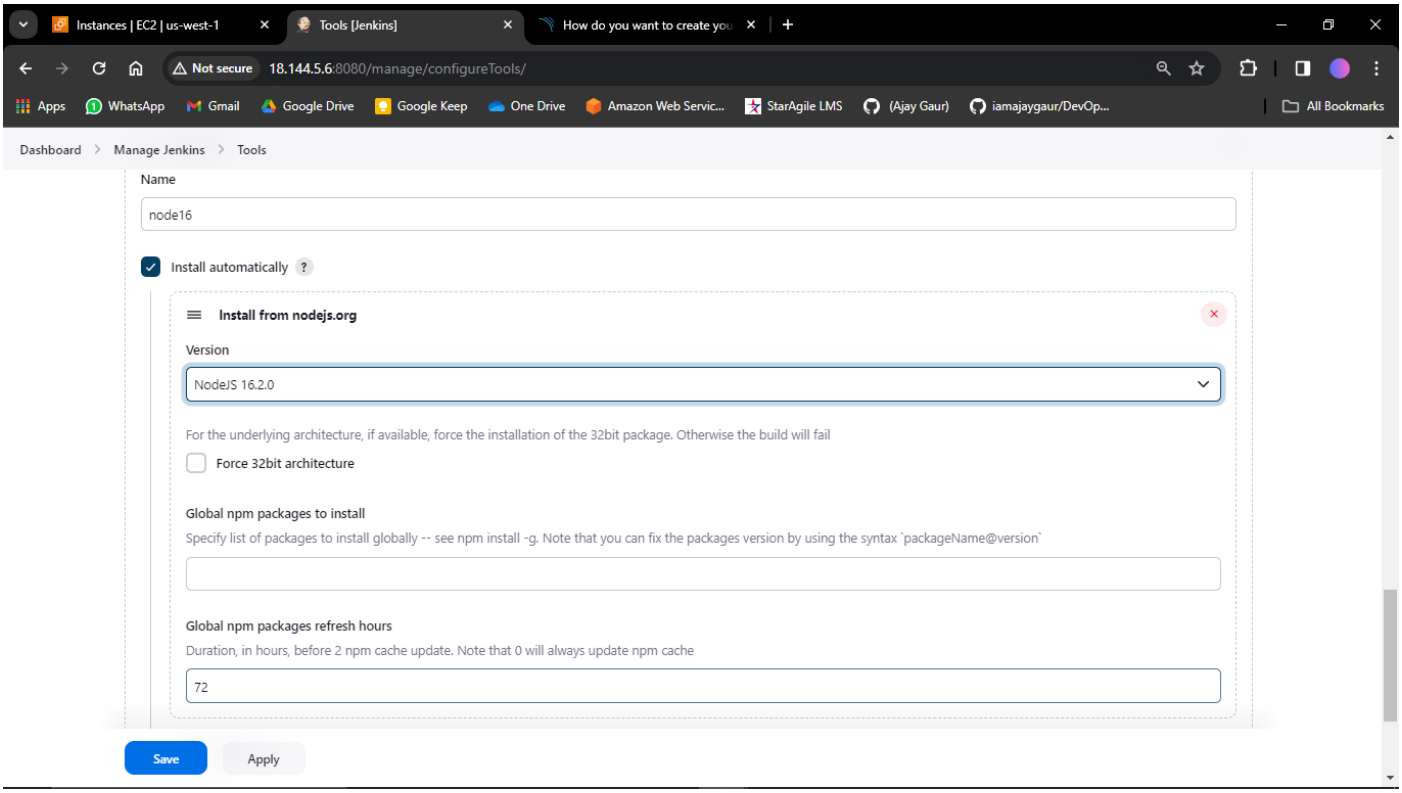




→ To Configure Java and Nodejs in Global Tool Configuration

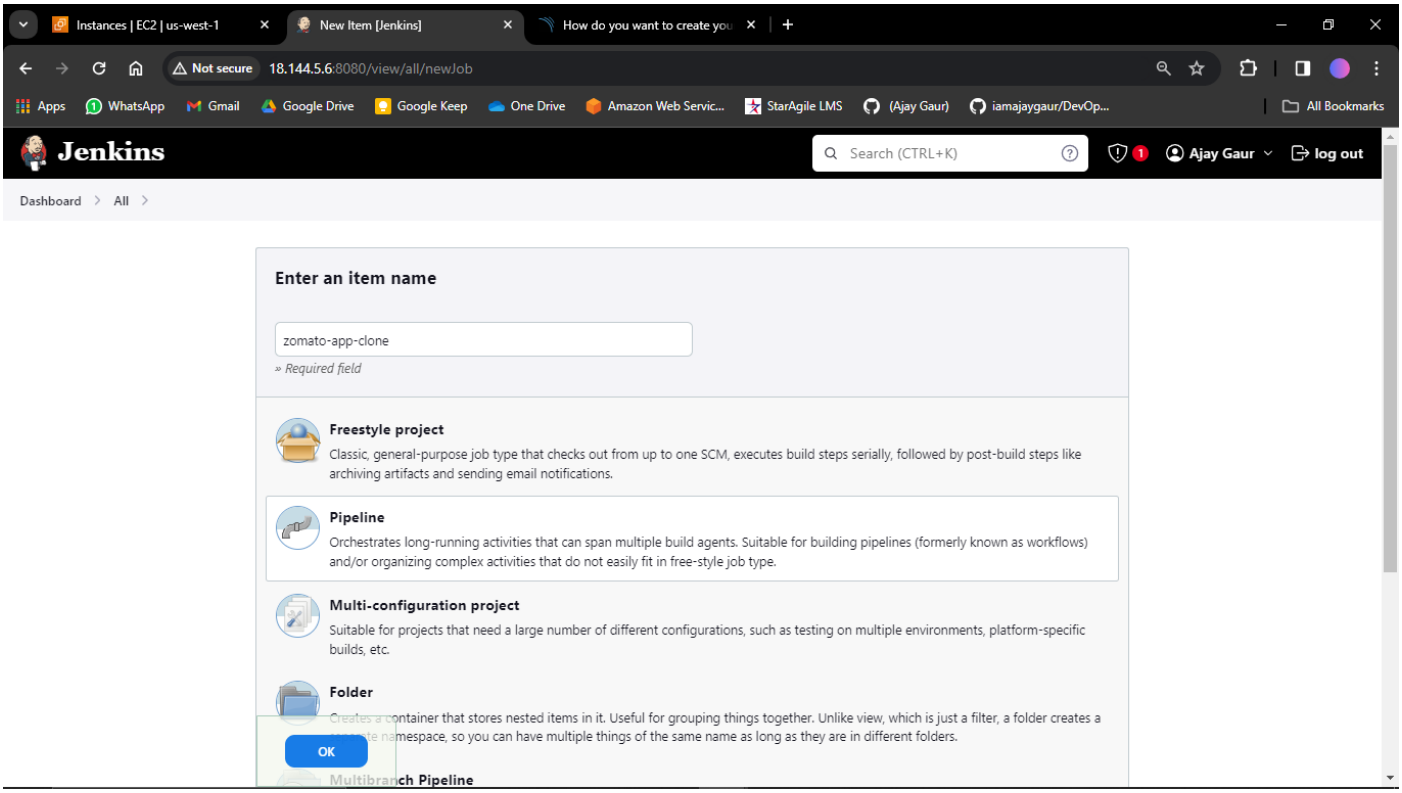
→ Goto Manage Jenkins → Tools → Install JDK(17) and NodeJs(16)→ Click on Apply and Save





→ To Create a Job

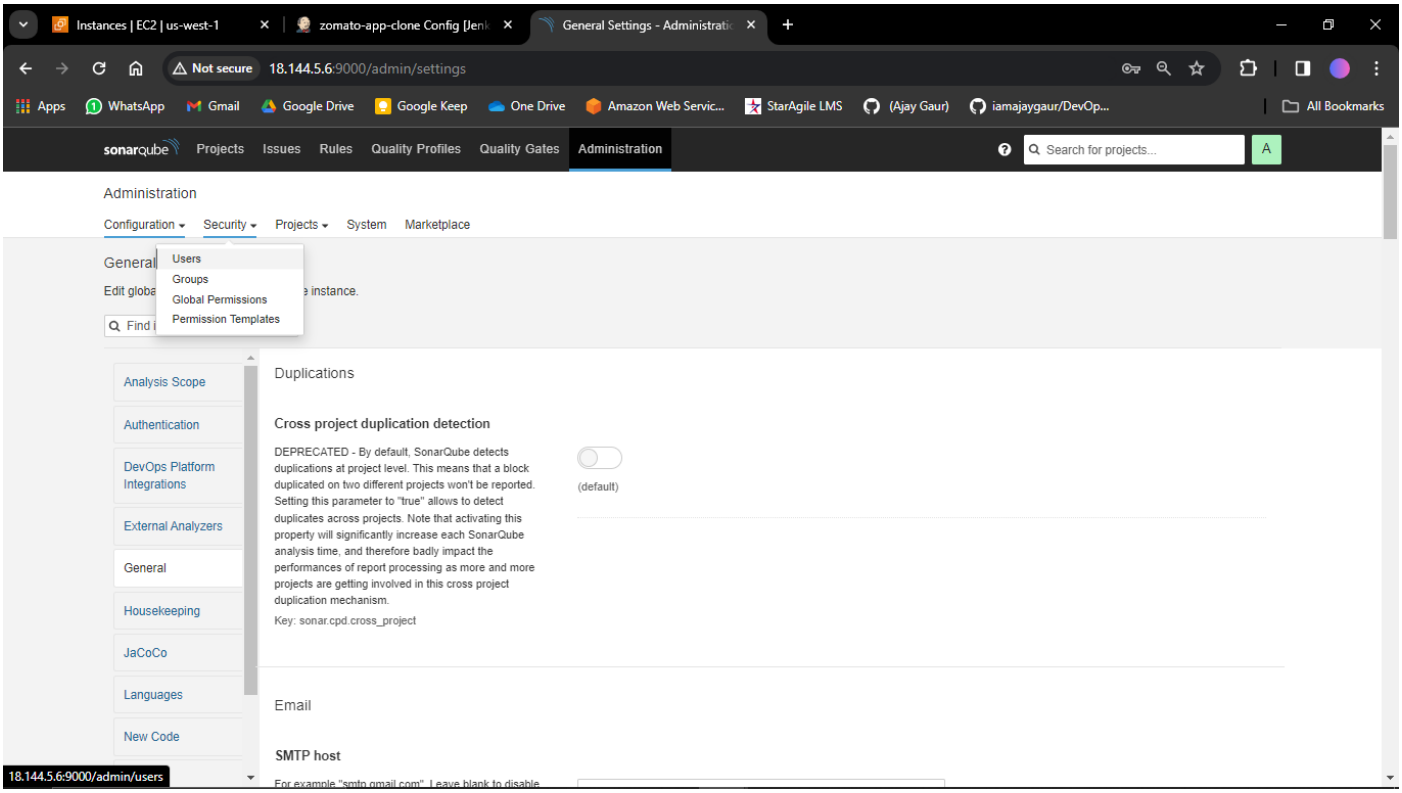
→ create a job as Zomato Name, select pipeline and click on ok.



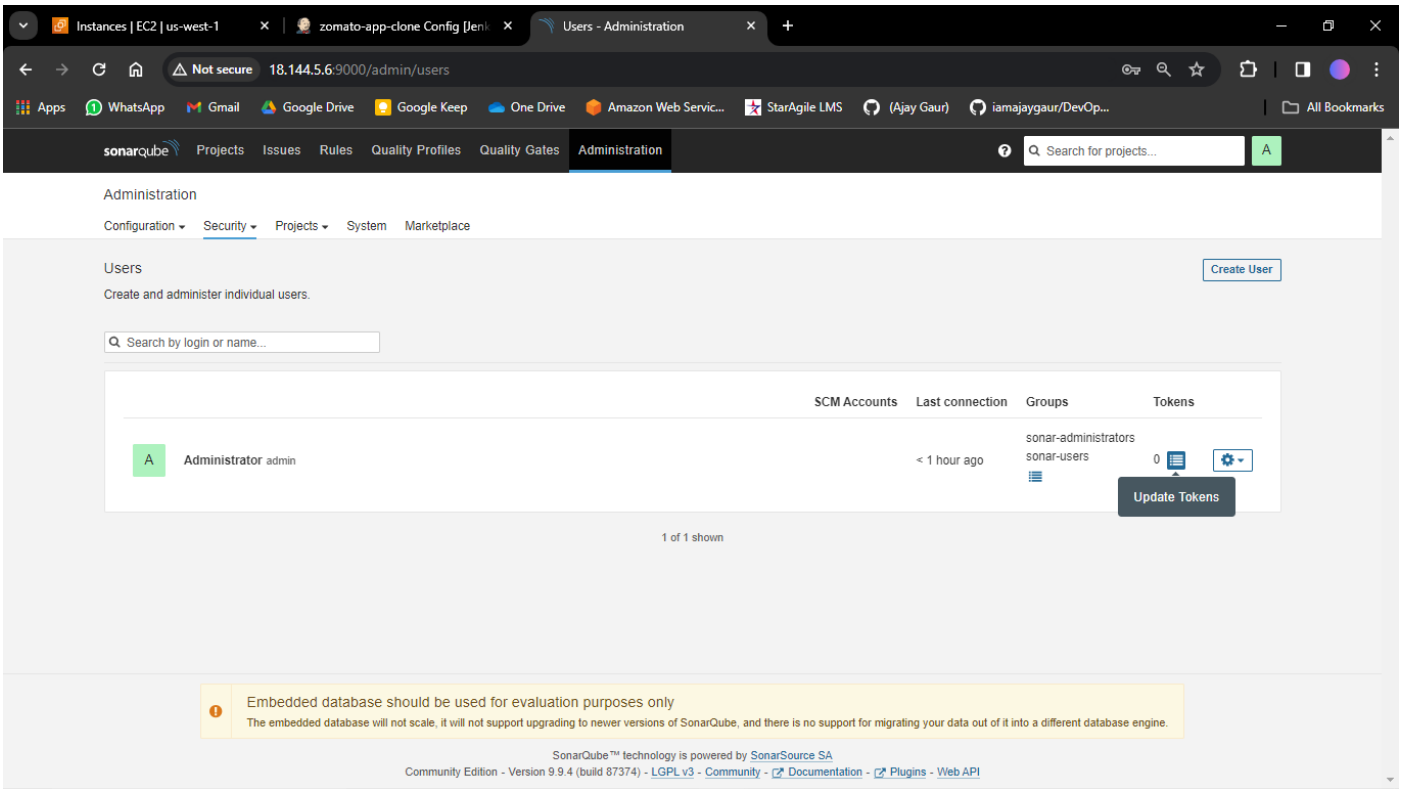
Step 4 - Configure Sonar Server in Manage Jenkins

→ Grab the Public IP Address of your EC2 Instance, Sonarqube works on Port 9000, so <Public IP>:9000. Goto your Sonarqube Server.

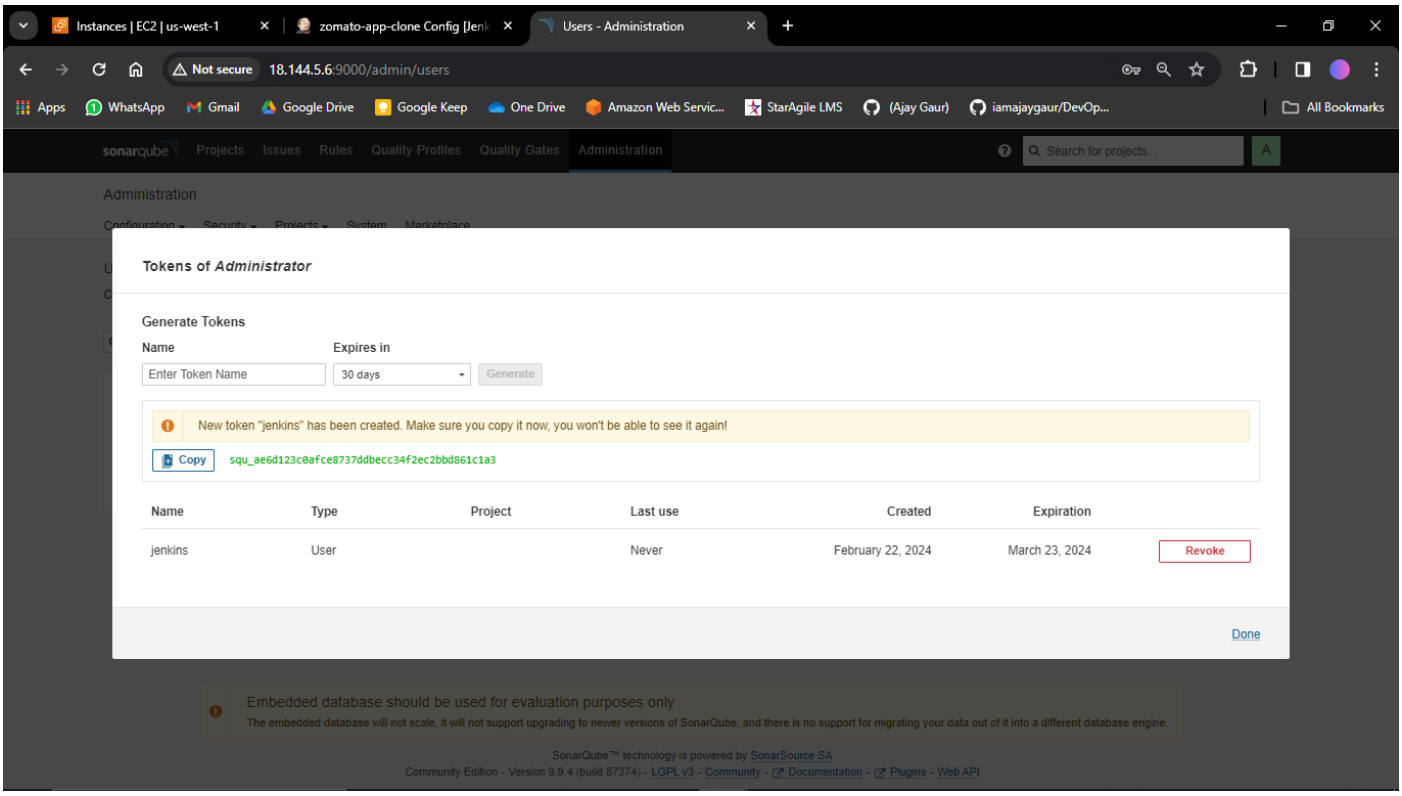
Click on Administration → Security → Users → Click on Tokens and Update Token → Give it a name → and click on Generate Token



→ click on update Token



→ Create a token with a name and generate and copy token.



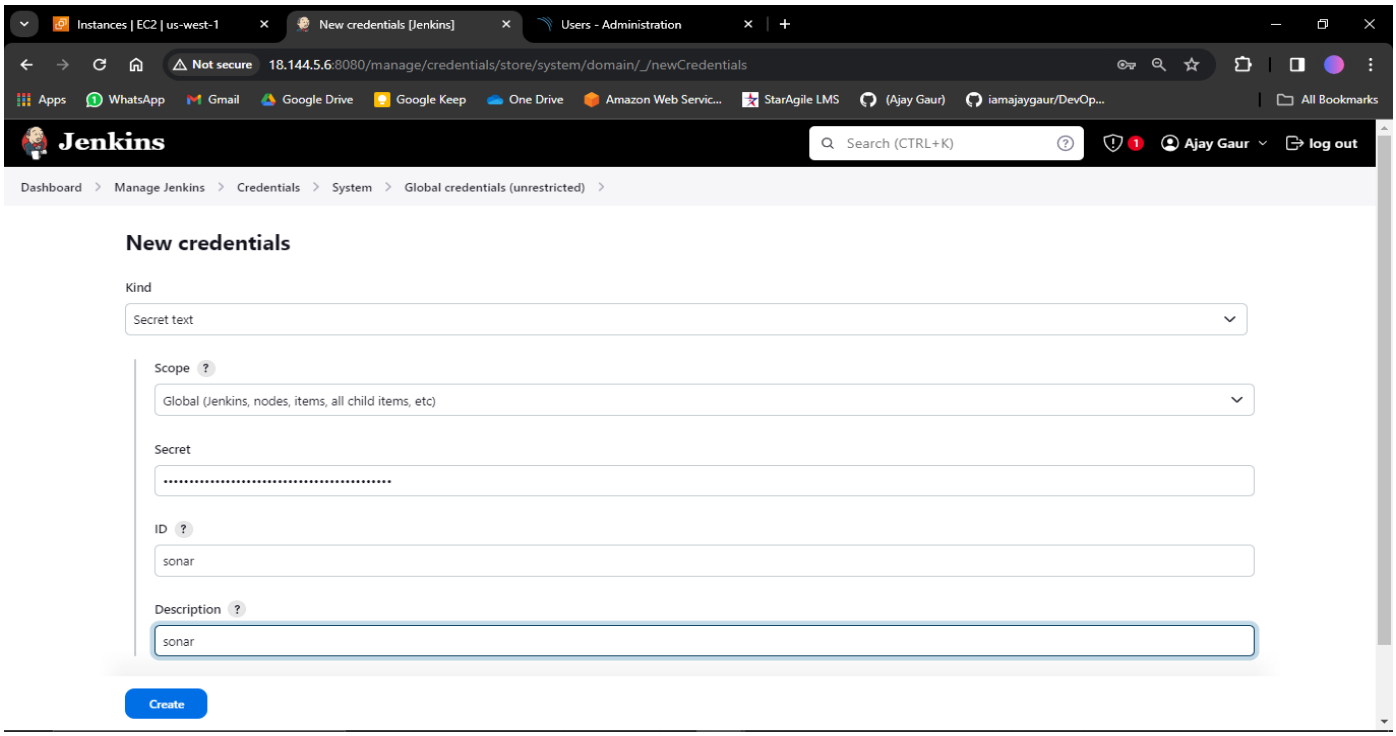
→ Goto Jenkins Dashboard → Manage Jenkins → Credentials → System→ Global credentials (unrestricted) Add the Following things

Kind – Select Secret text

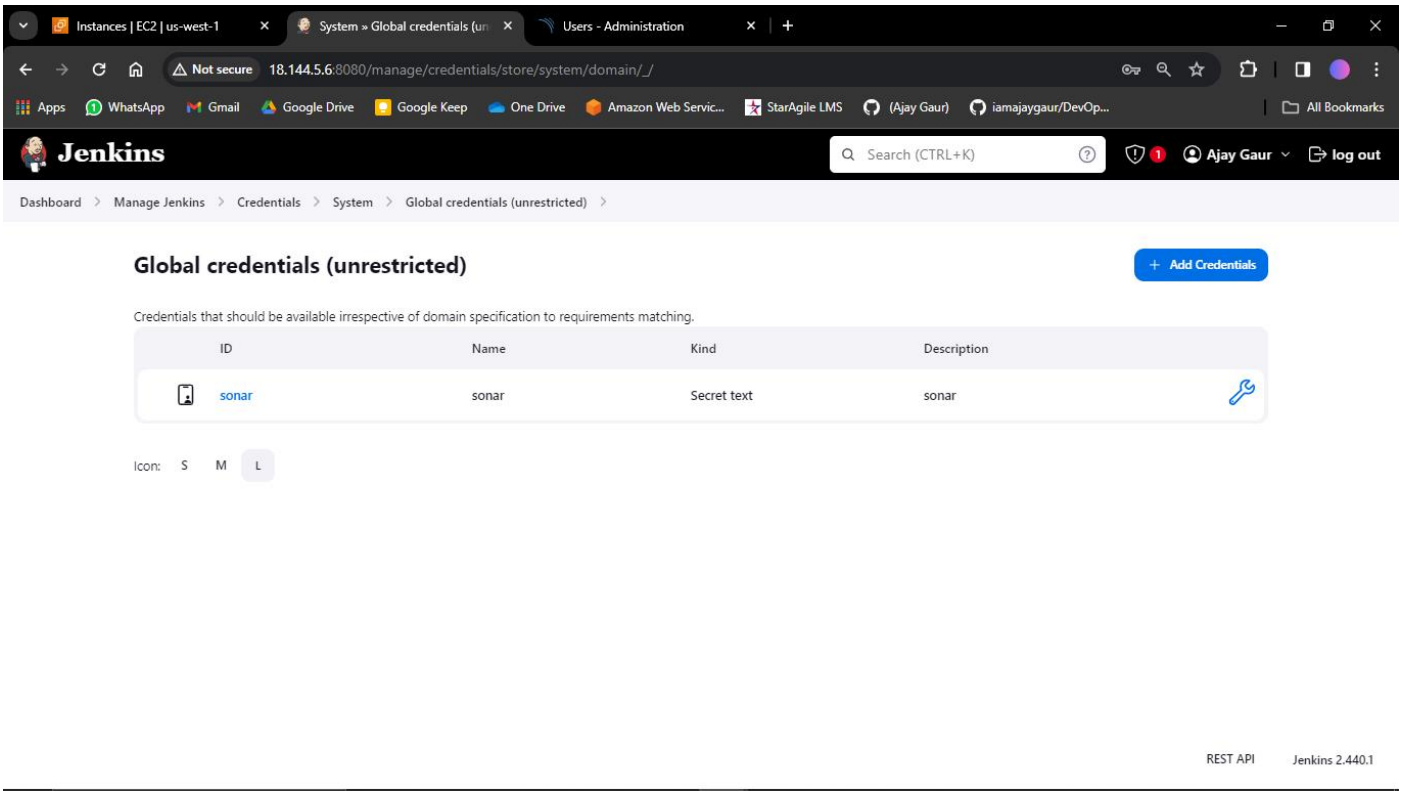
Secret – post the generated token

ID- sonar

Description – sonar

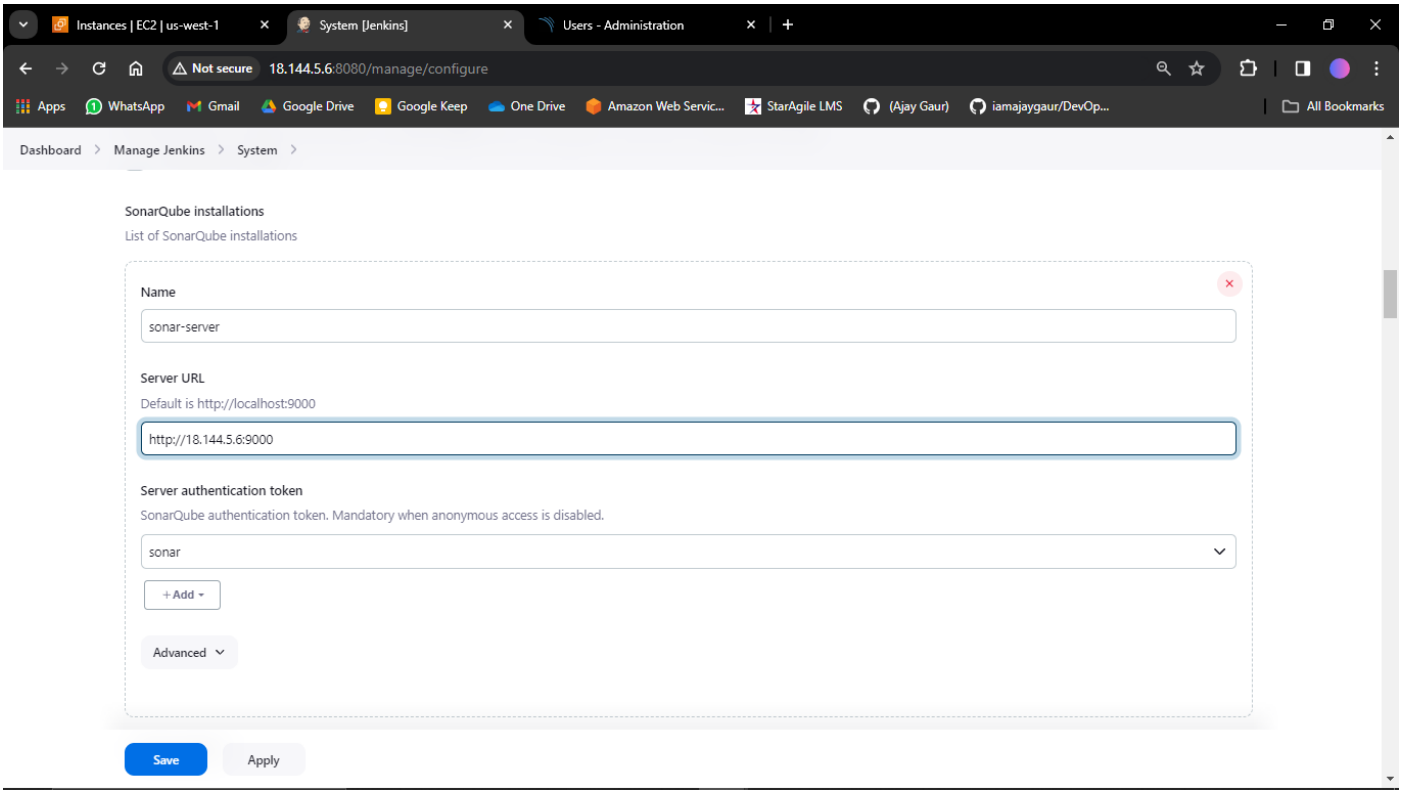


→ You will get this page once you click on create



→ Now, go to Dashboard → Manage Jenkins → System and Add like the below image.

→ Click Apply and Save

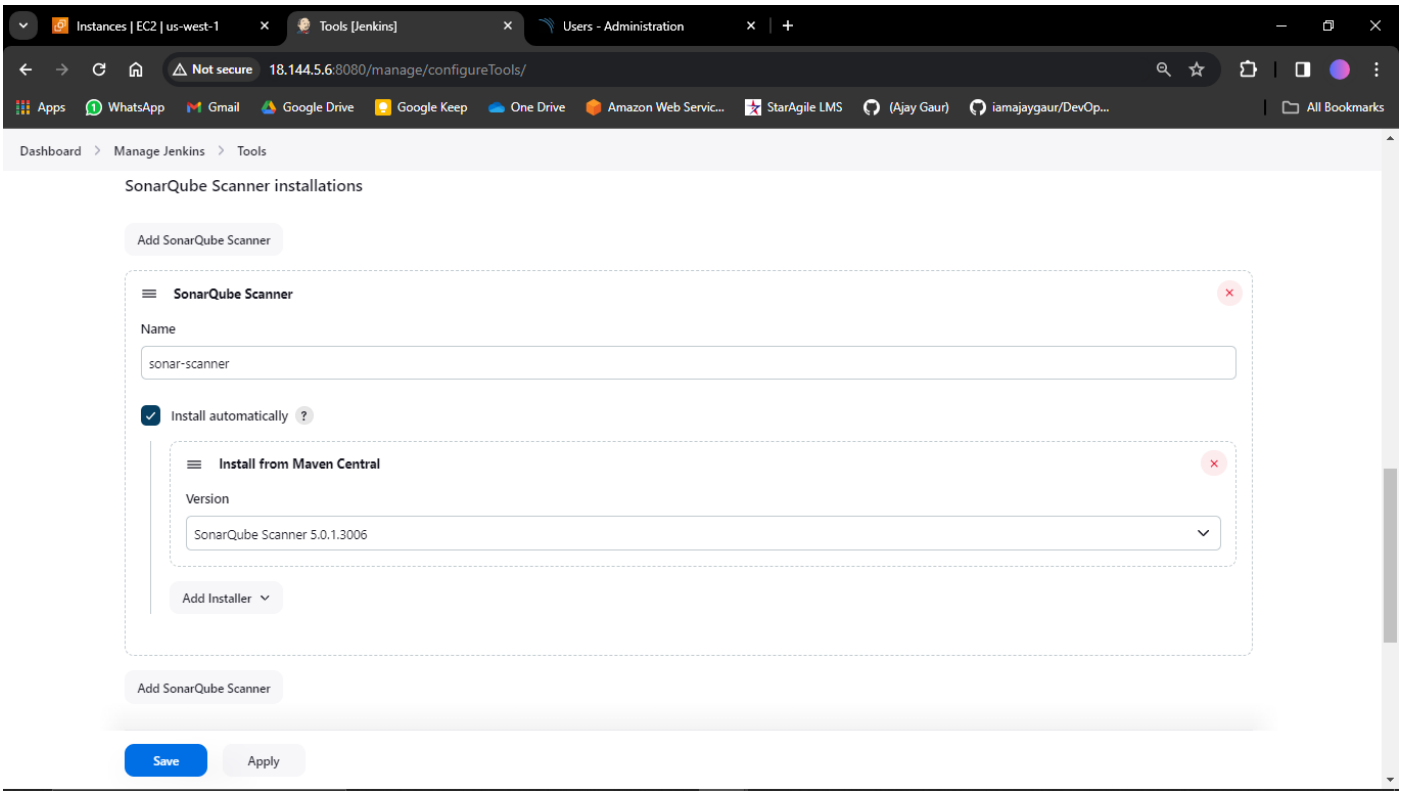


→ The Configure System option is used in Jenkins to configure different server. Global Tool Configuration is used to configure different tools that we install using Plugins.

→ We will install a sonar scanner in the tools.

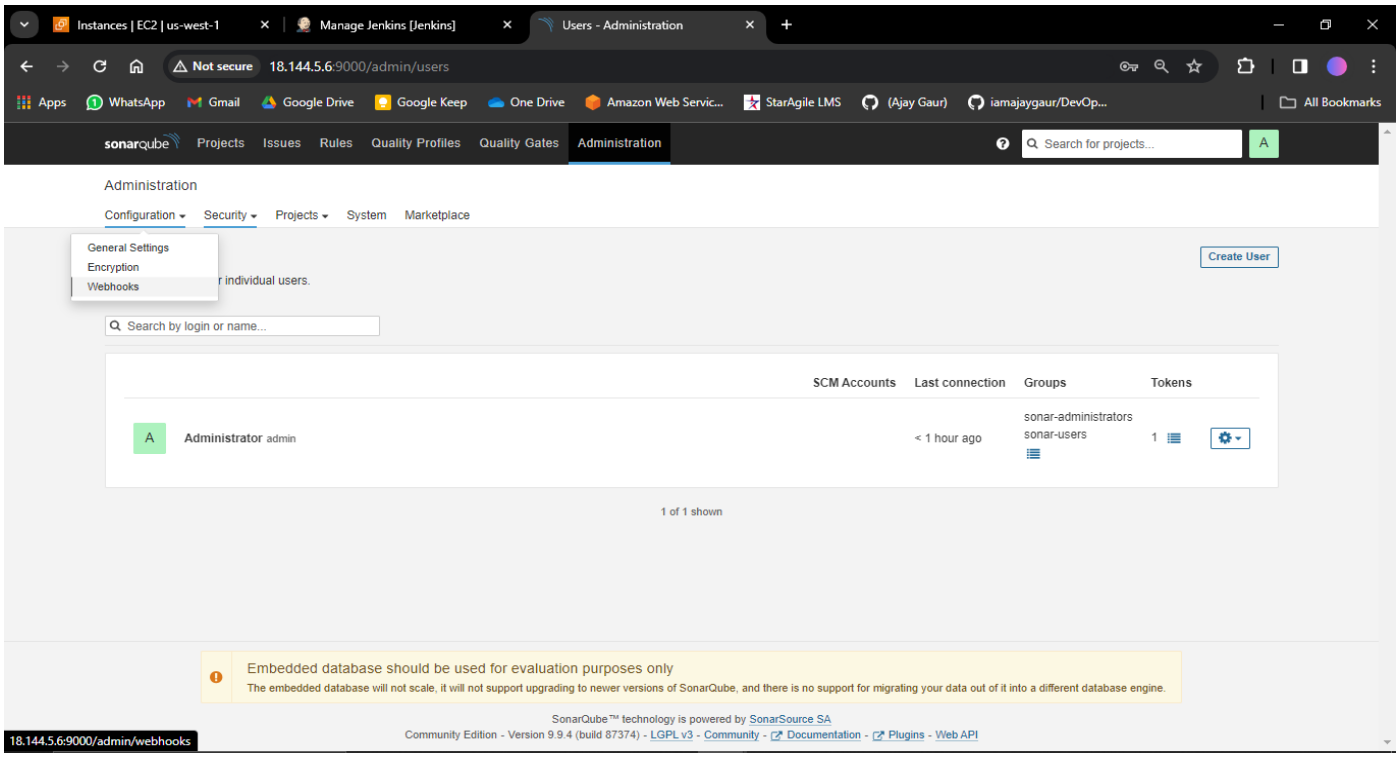
→ Go to Dashboard → Manage Jenkins →Tools

→ Click on Apply and Save

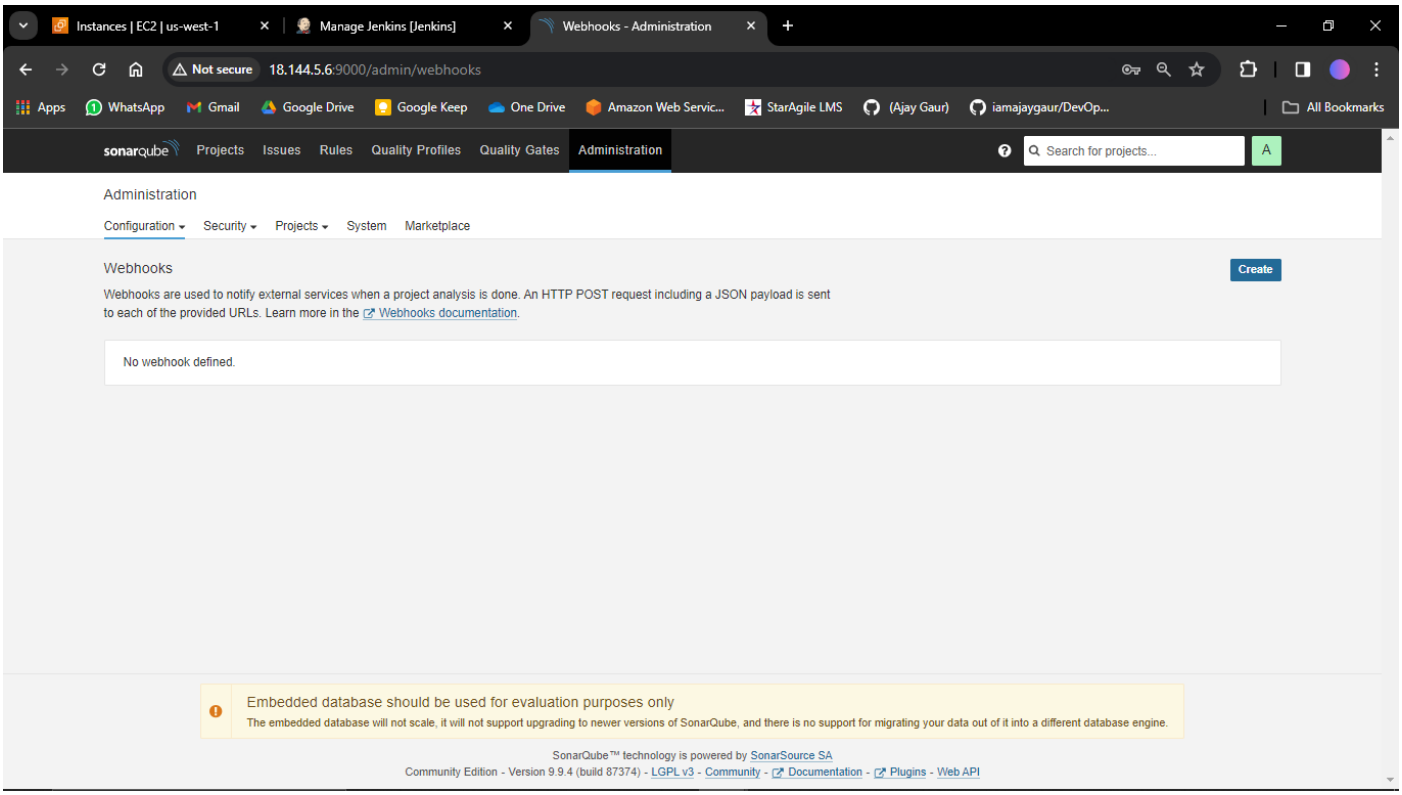


→ In the Sonarqube Dashboard add a quality gate also

→ Go to Administration → Configuration →Webhooks



→ Click on Create

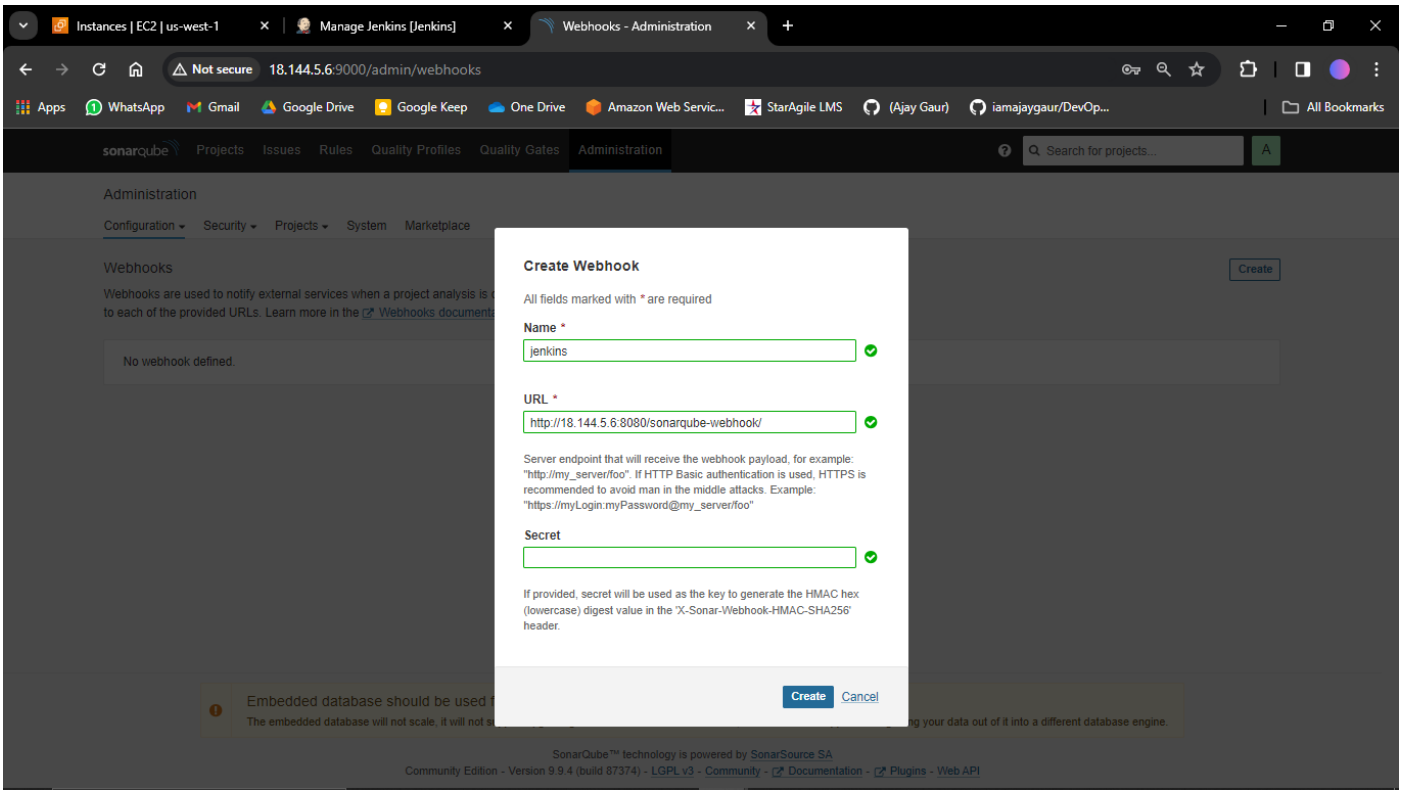


→ Add details

#in url section of quality gate

→ http://<jenkins-public-ip:8080>/sonarqube-webhook/

→ Click on Create



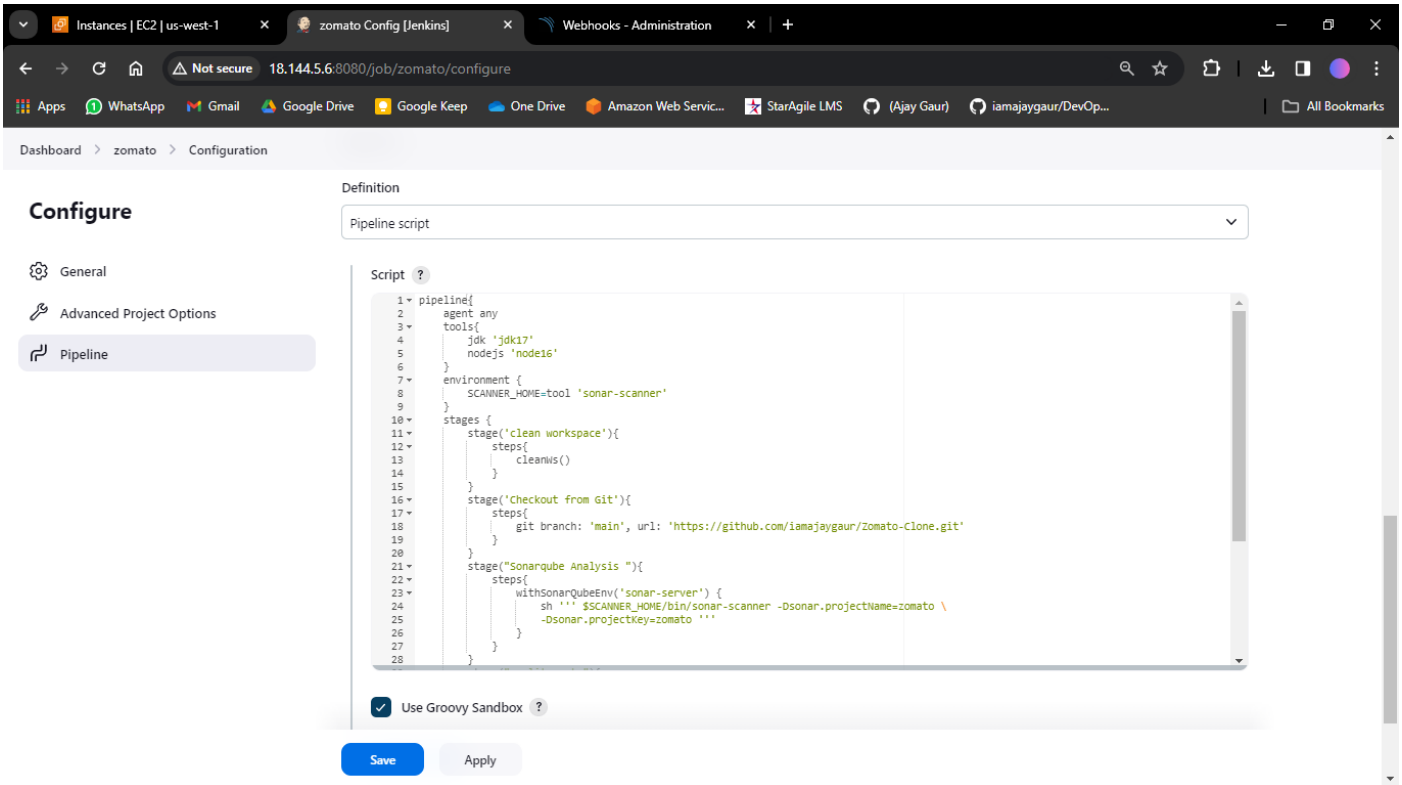
→ Let’s go to our Pipeline and add the script in our Pipeline Script.

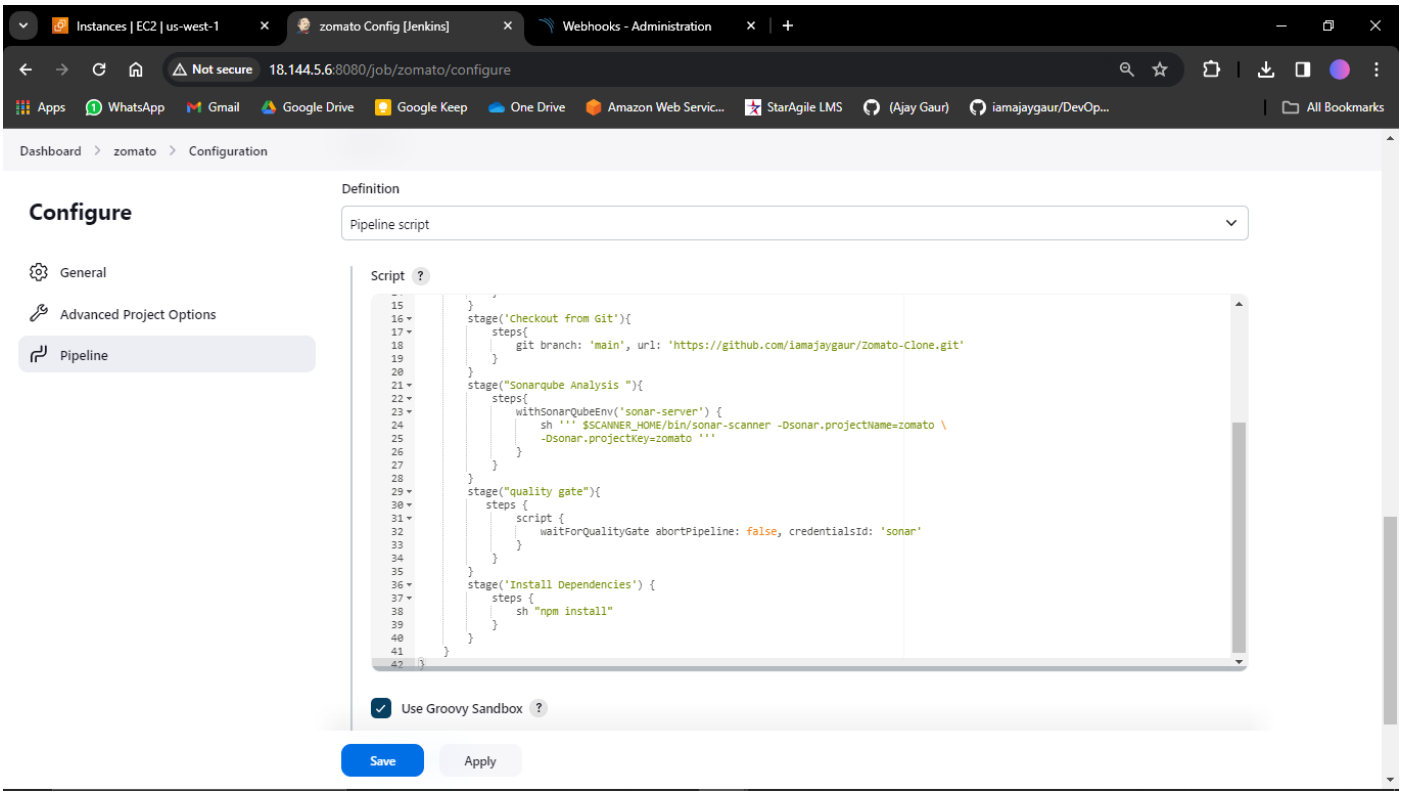
→ Add pipeline script from file name jenkinsfile from github repository

→ https://github.com/iamajaygaur/Zomato-Clone.git

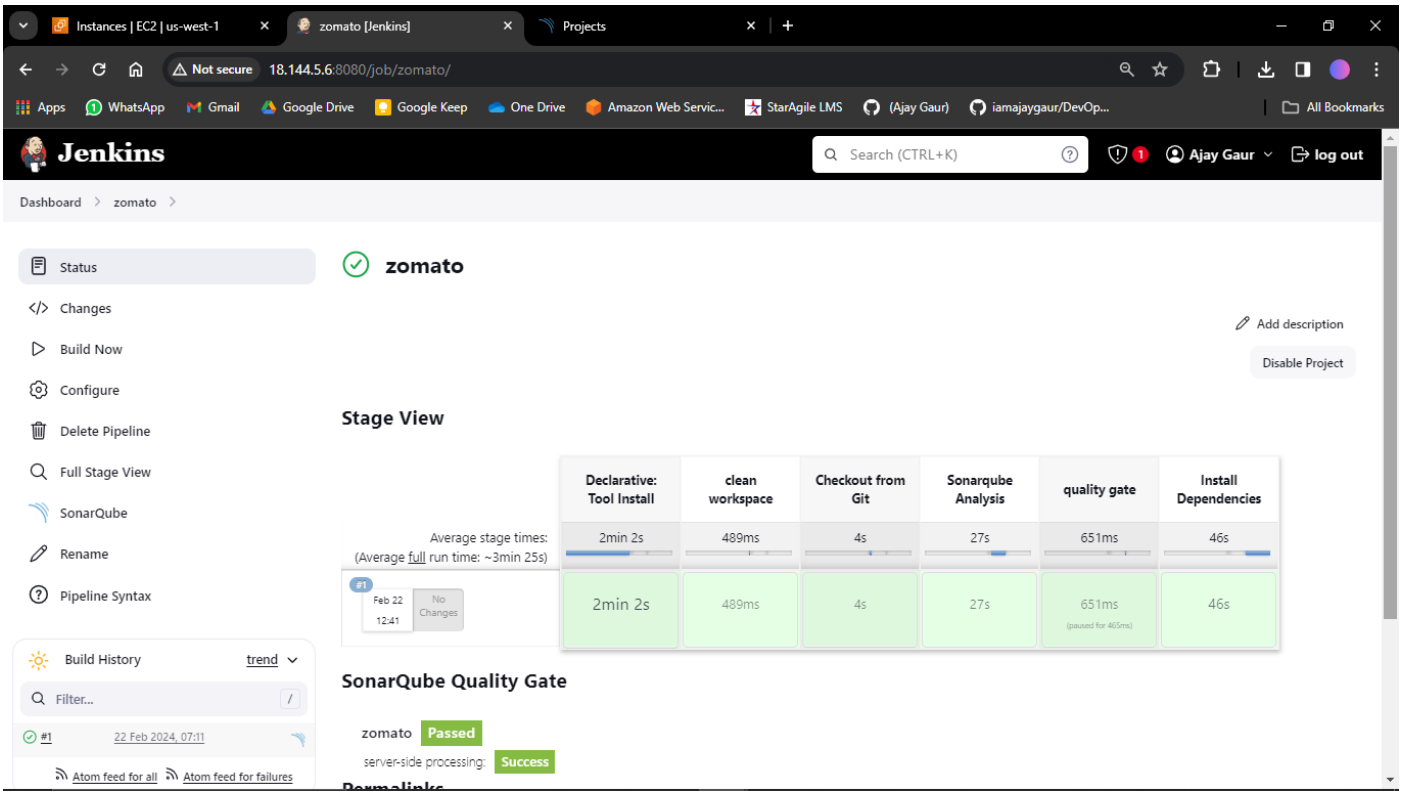
→ Go to Dashboard→ Zomato→ Configuration and Paste the Script

→ Then Click on Apply and Save

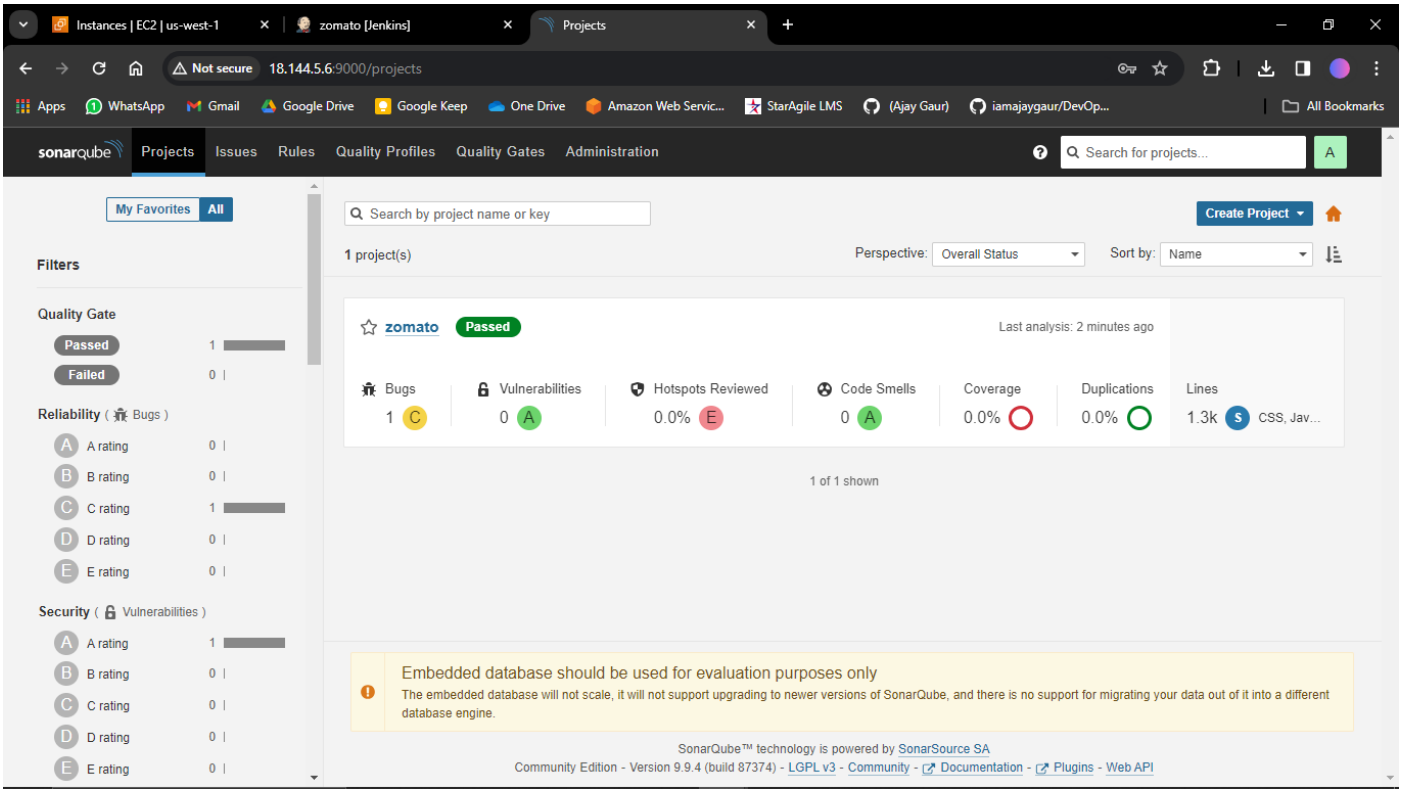




→ Click on Build now, you will see the stage view like this



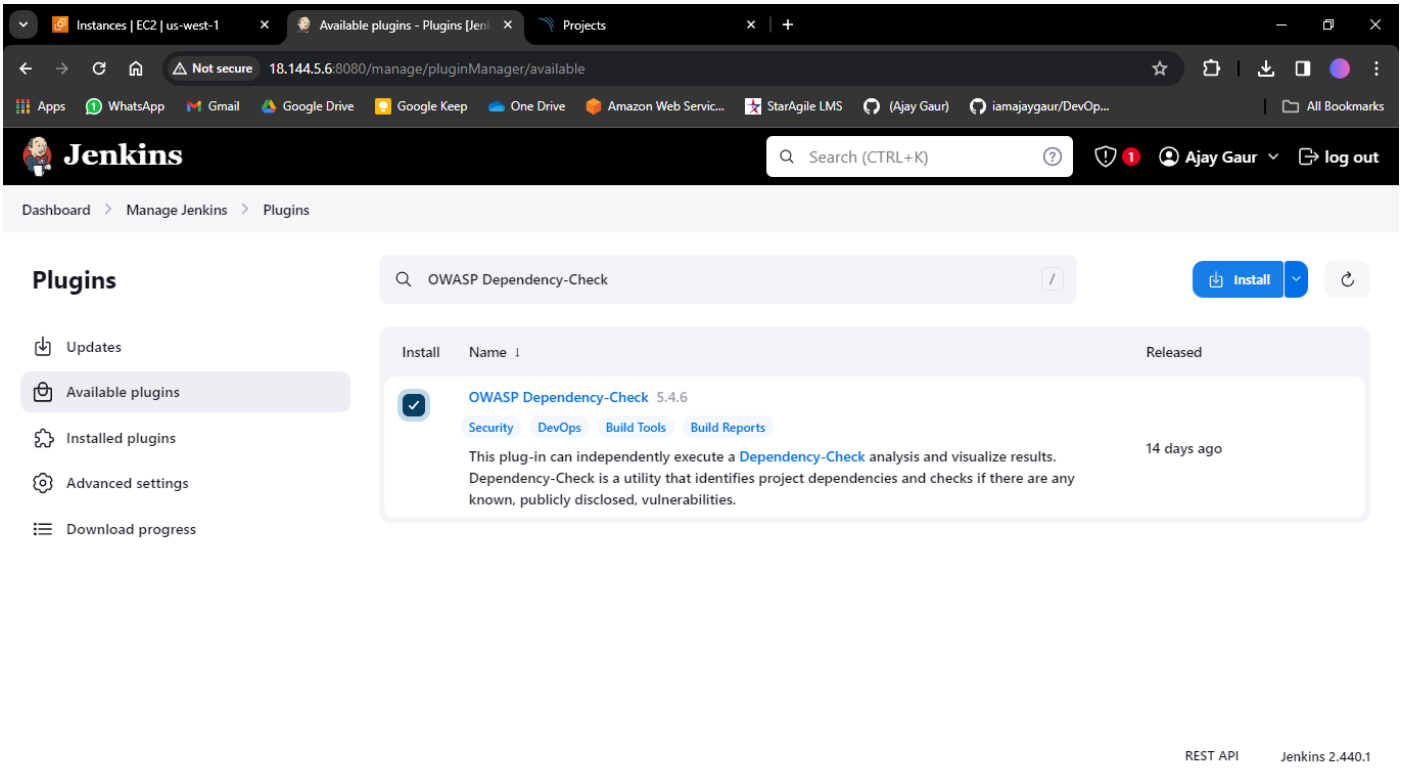
→ To see the report, you can go to Sonarqube Server and go to Projects.



You can see the report has been generated and the status shows as passed. You can see that there are 1.3k lines. To see a detailed report, you can go to issues.

Step 5 - Install OWASP Dependency Check Plugins

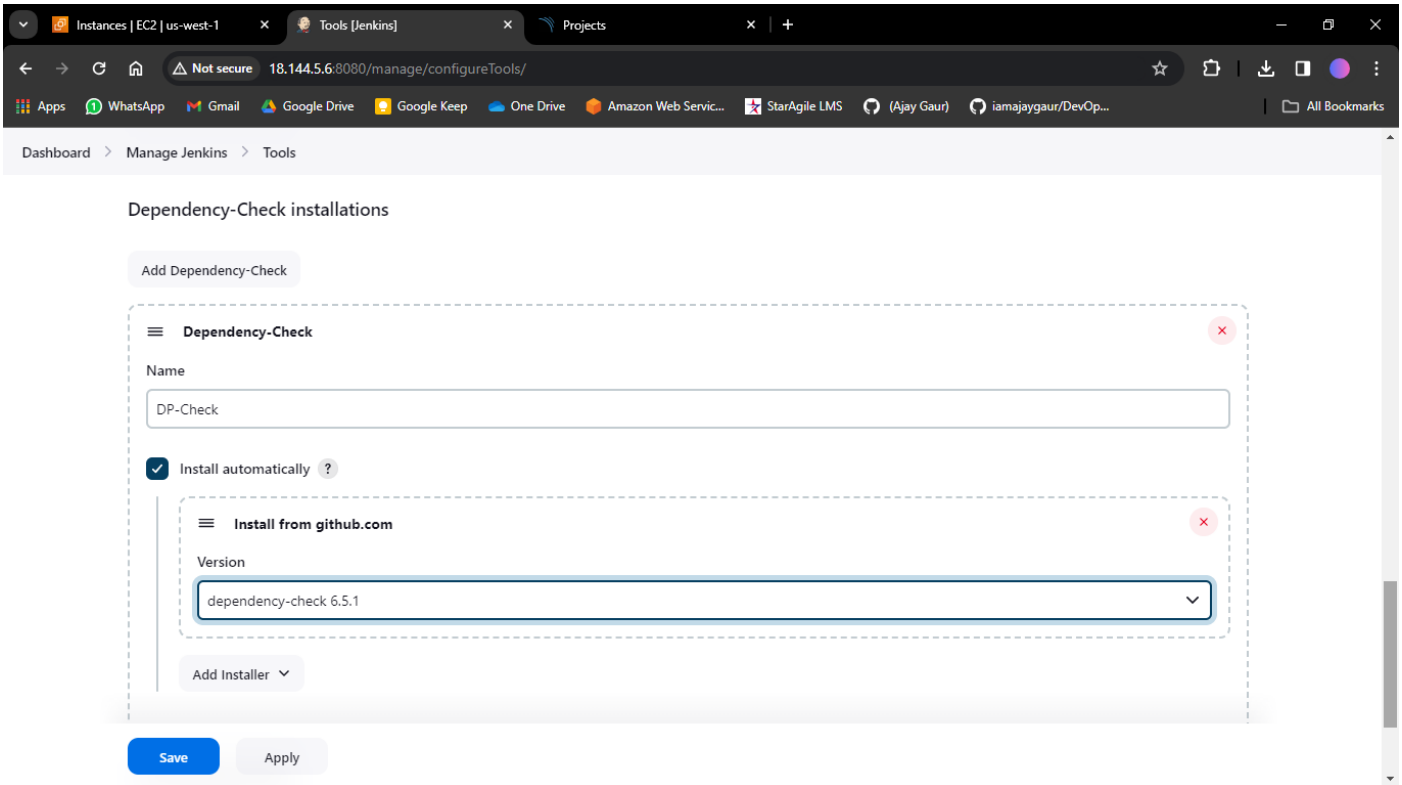
→ Goto Dashboard → Manage Jenkins → Plugins → OWASP Dependency-Check. Click on it and install it without restart.



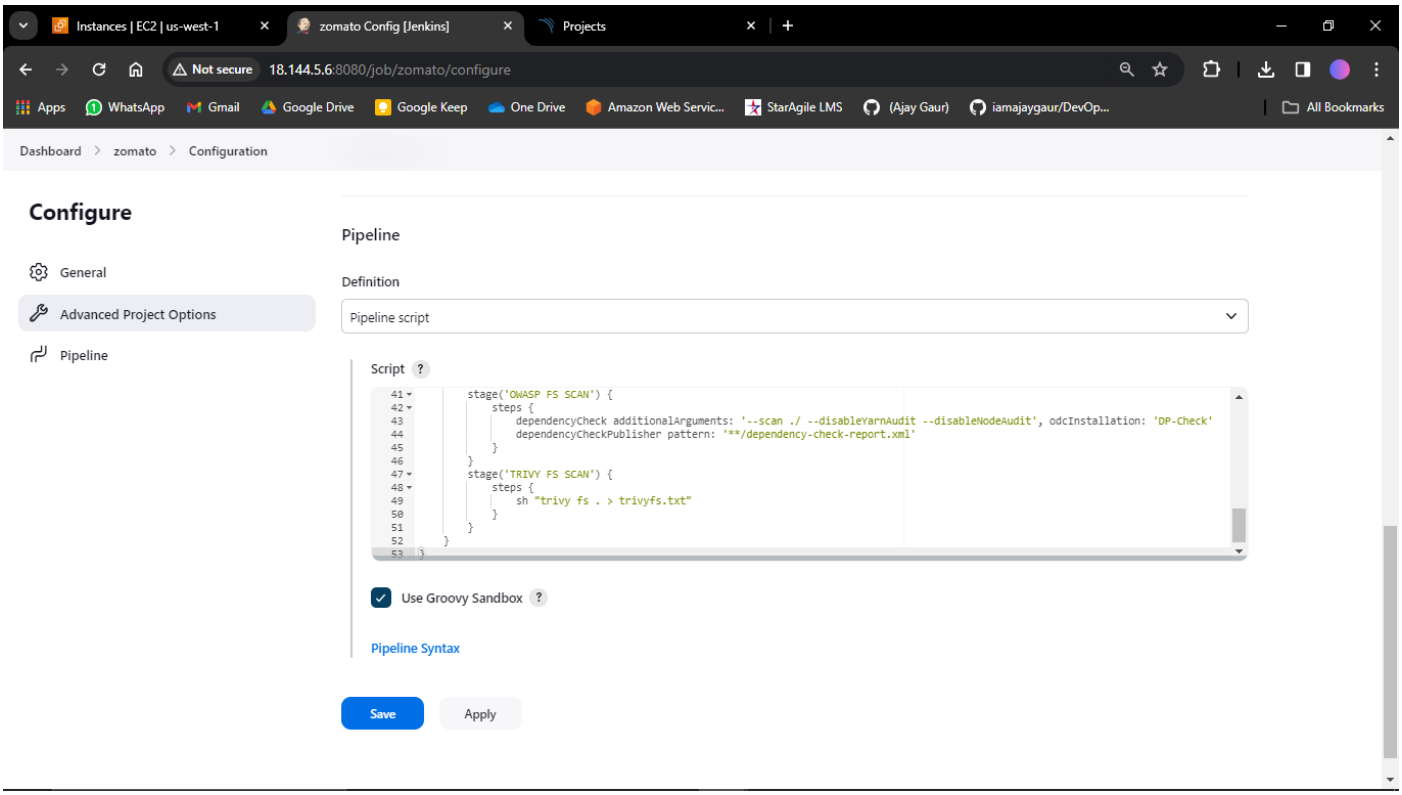
First, we configured the Plugin and next, we had to configure the Tool

→ Goto Dashboard → Manage Jenkins → Tools

→ Click Apply and Save

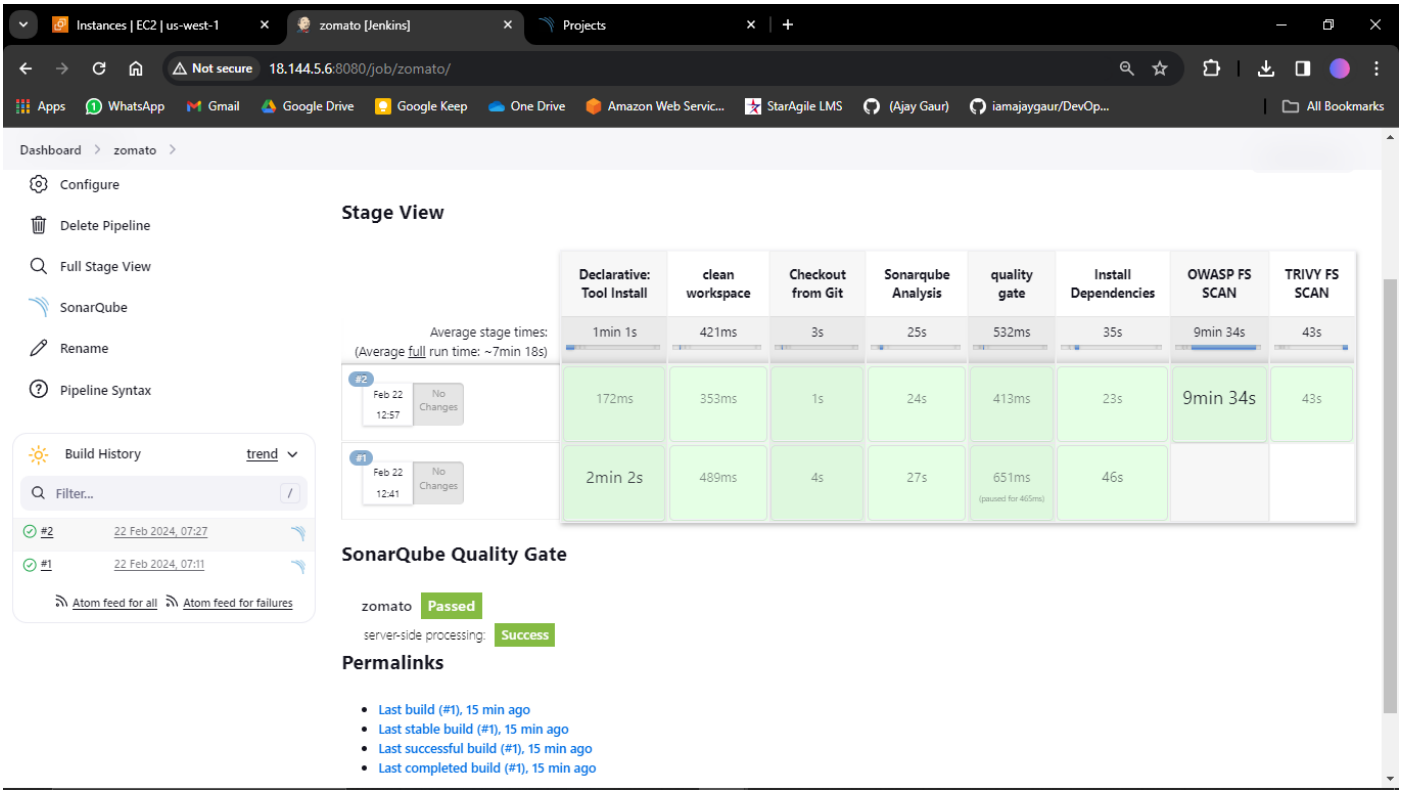


→ Now go configure → Pipeline and add this stage to your pipeline apply and save.



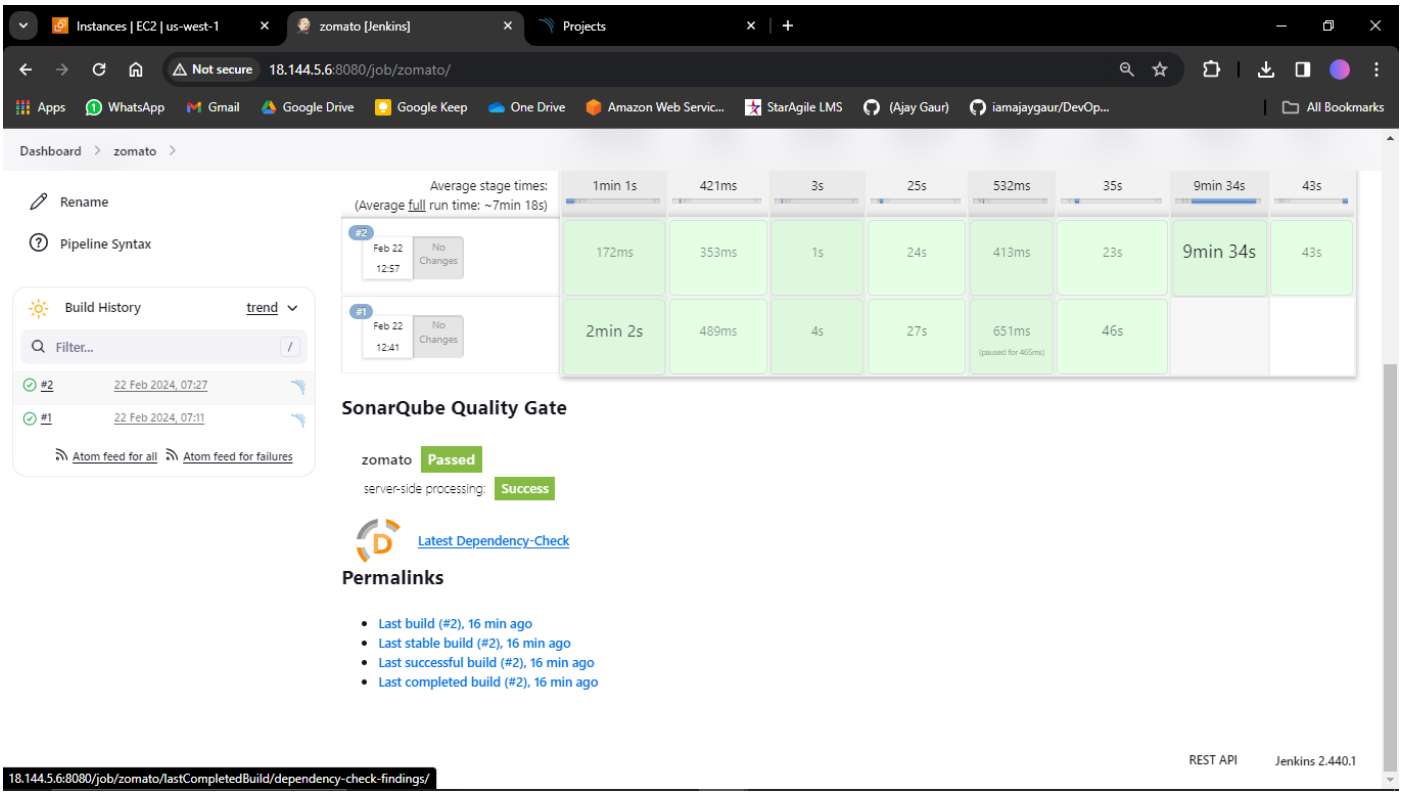
→ Click on Build Now

→ The stage view would look like this,

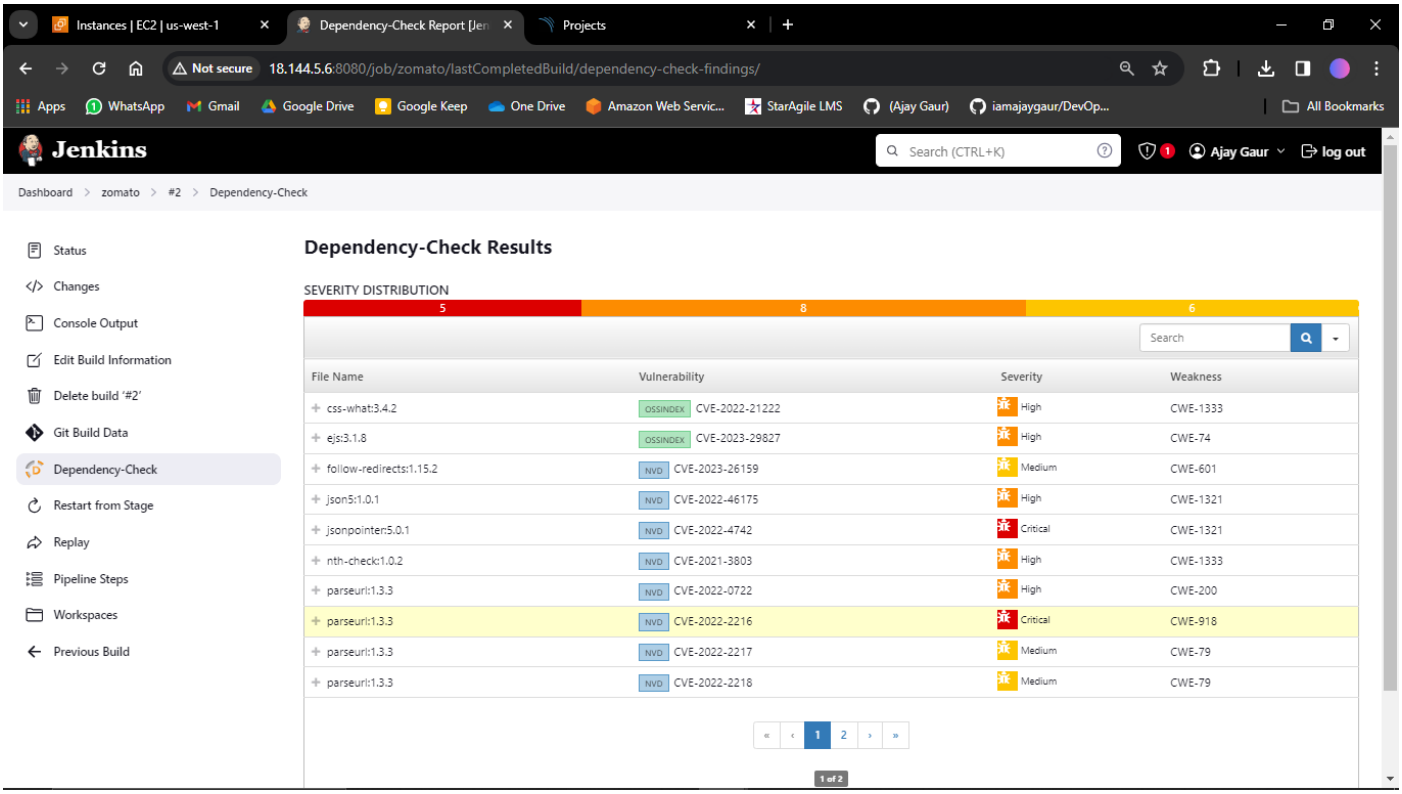


→ You will see that in status, a graph will also be generated and Vulnerabilities.

→ Refresh the page after build.



→ Click on the Latest Dependency-Check



Step 6 - Docker Image Build and Push

→ We need to install the Docker tool in our system in jenkins, Goto Dashboard → Manage Plugins → Available plugins → Search for Docker and install these plugins-

→ Docker

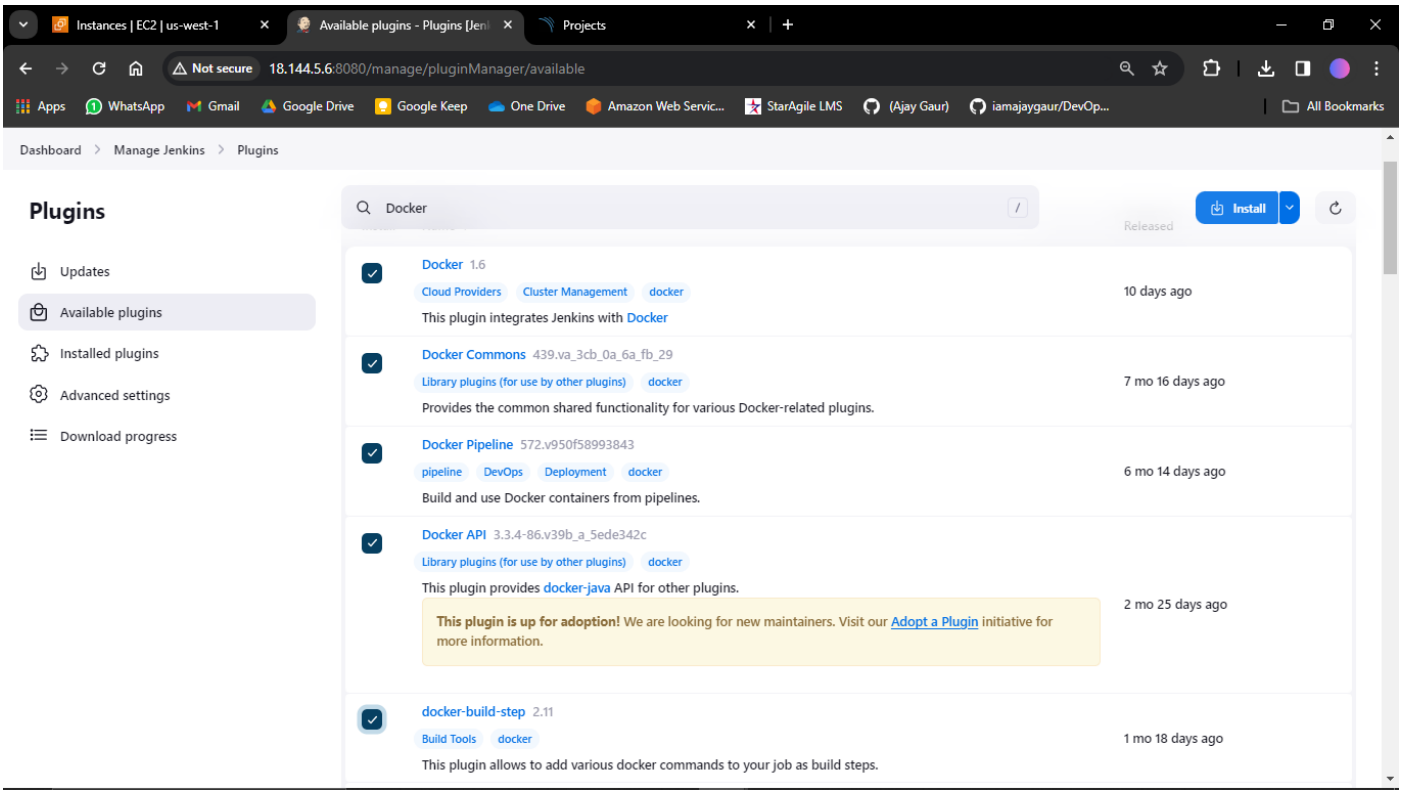
→ Docker Commons

→ Docker Pipeline

→ Docker API

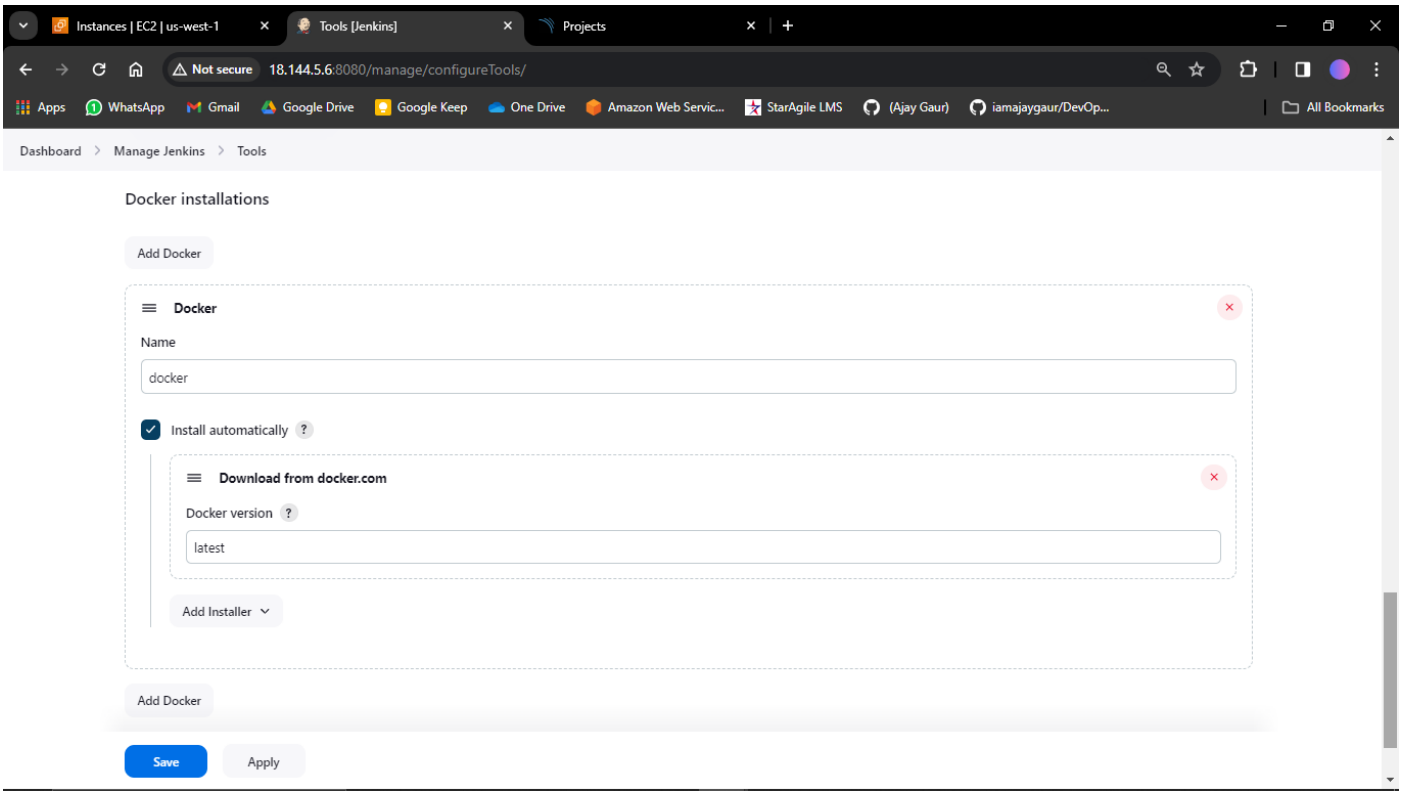
→ docker-build-step

and click on install for all plugins without restart



→ Now, Goto Dashboard → Manage Jenkins → Tools

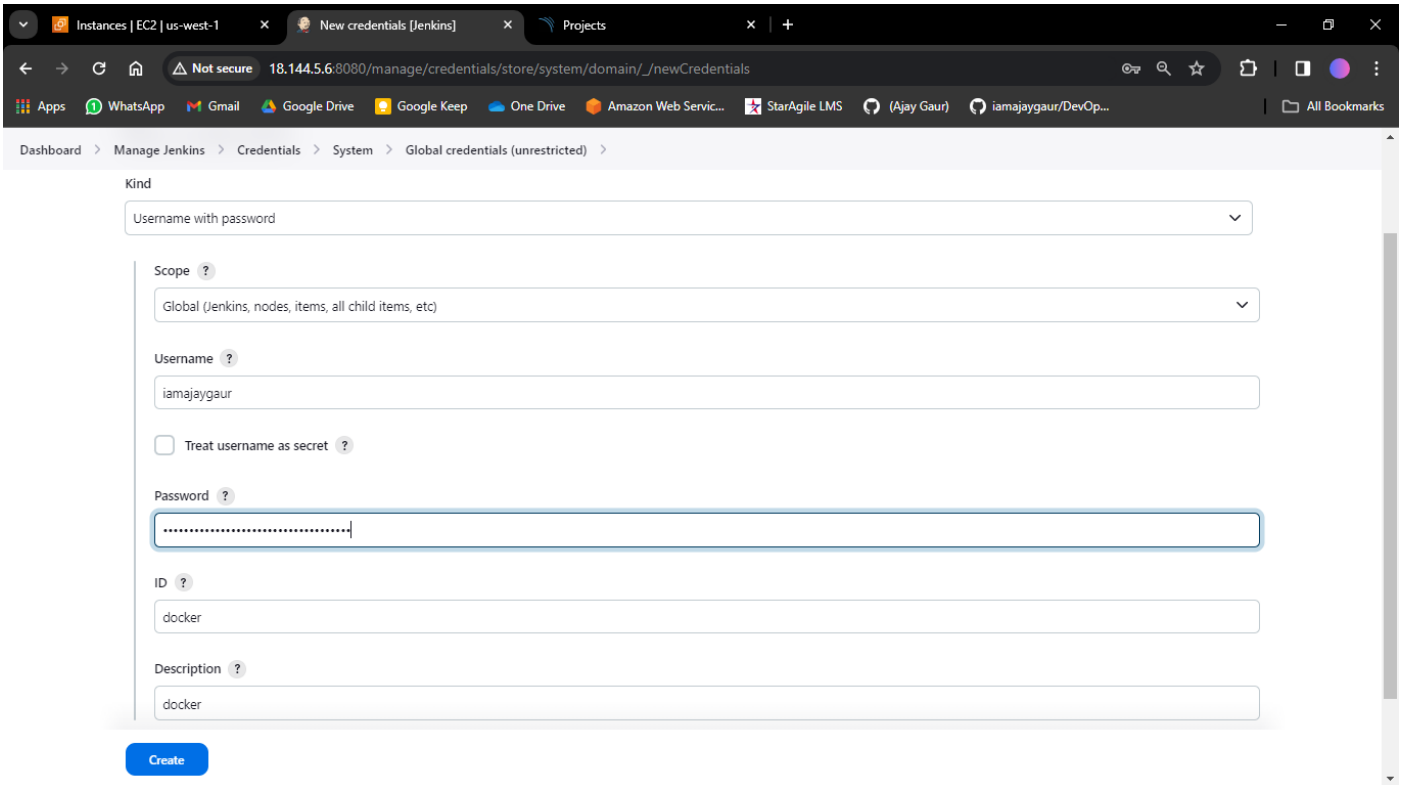
→ Click on Apply and Save

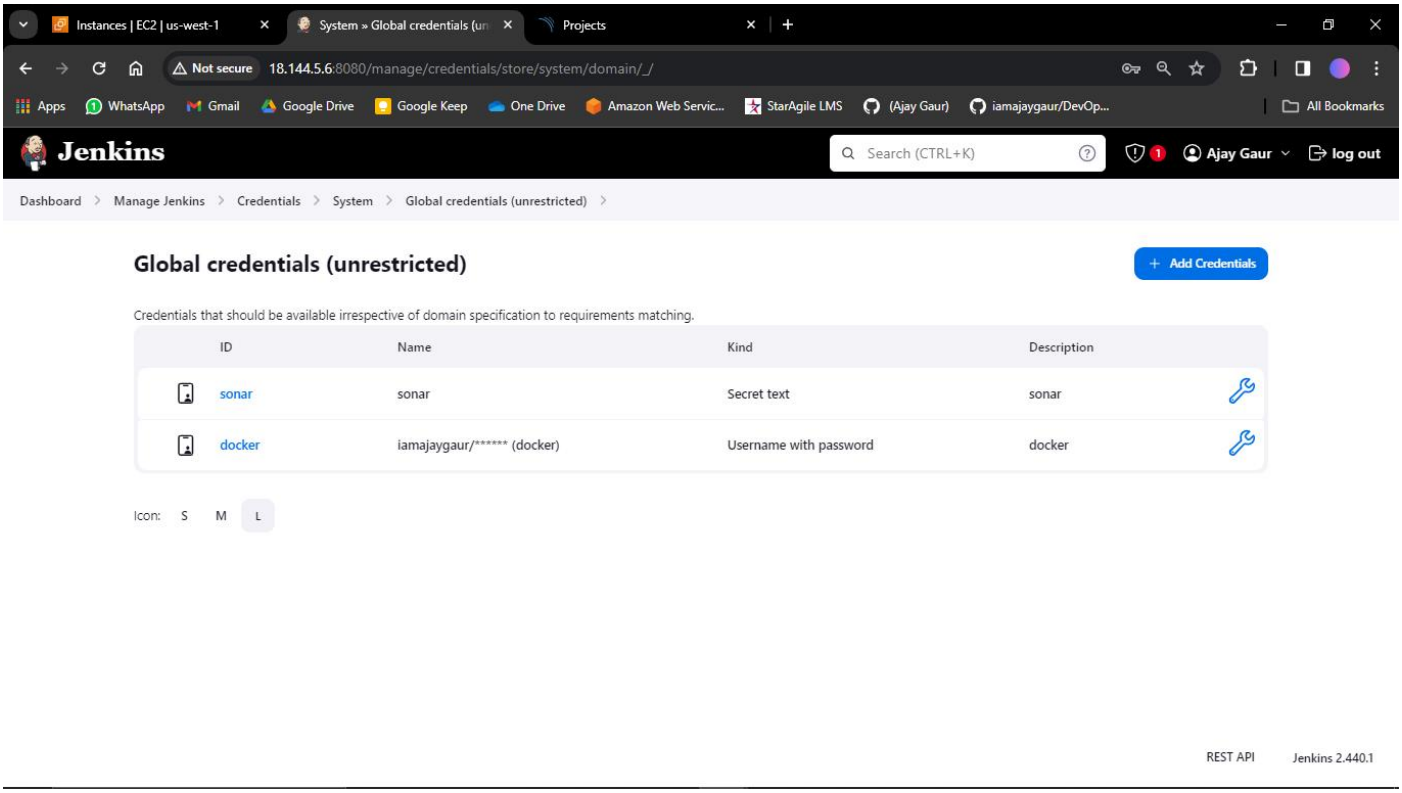


→ Now, Goto Dashboard → Manage Jenkins → Credentials → System → Global credentials (unrestricted)

→ Add DockerHub Username and Password under Global Credentials

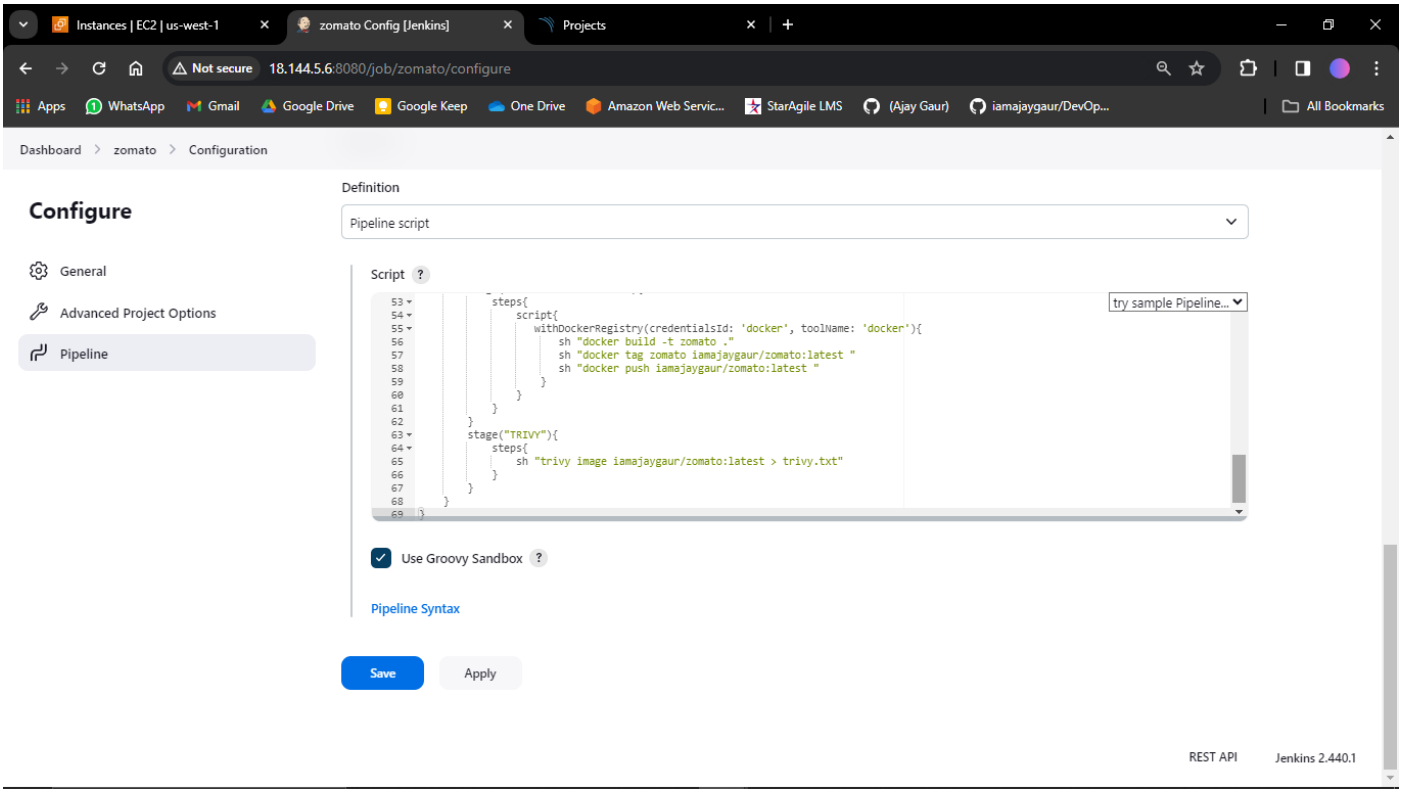
→ Click on Create





→ Add this stage to Pipeline Script

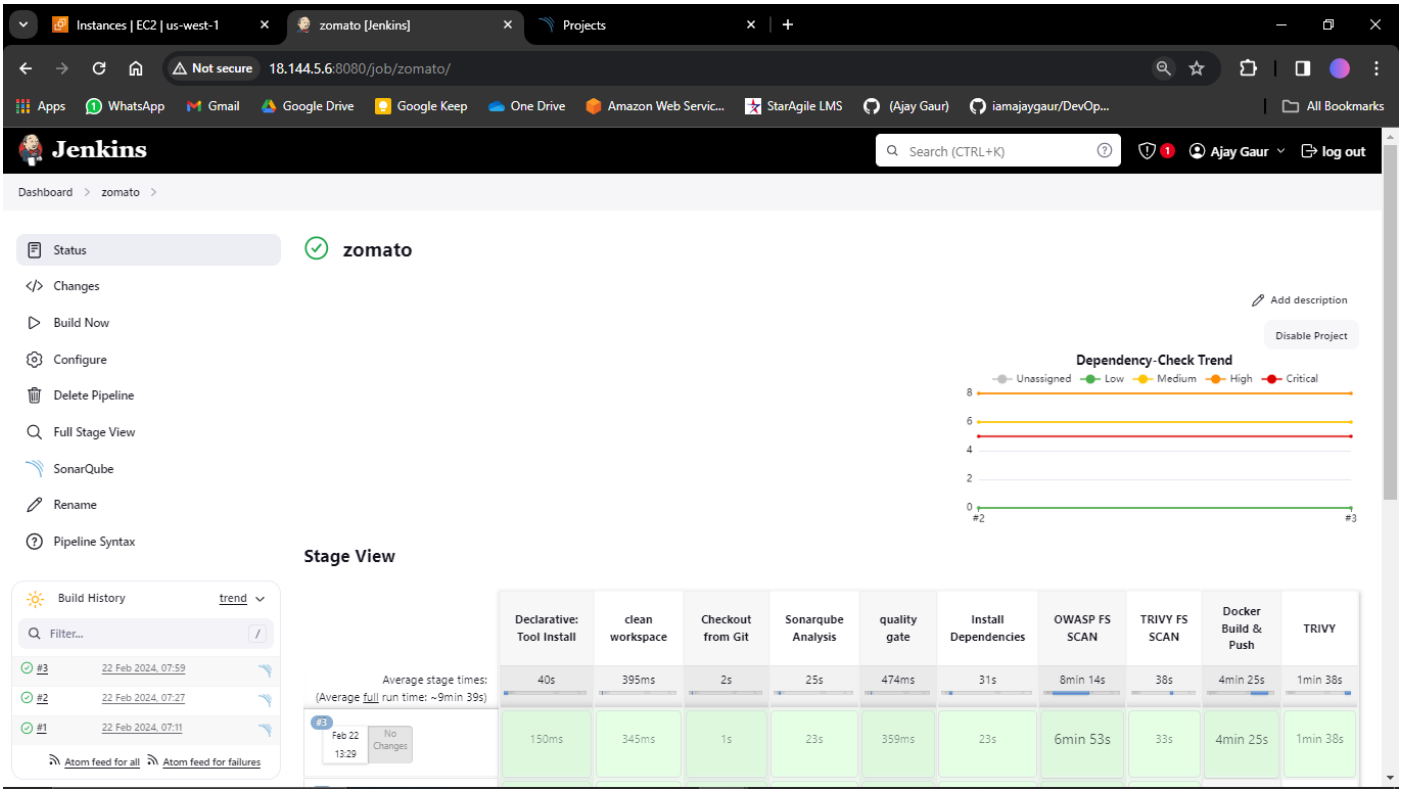
→ Click on Apply and Save

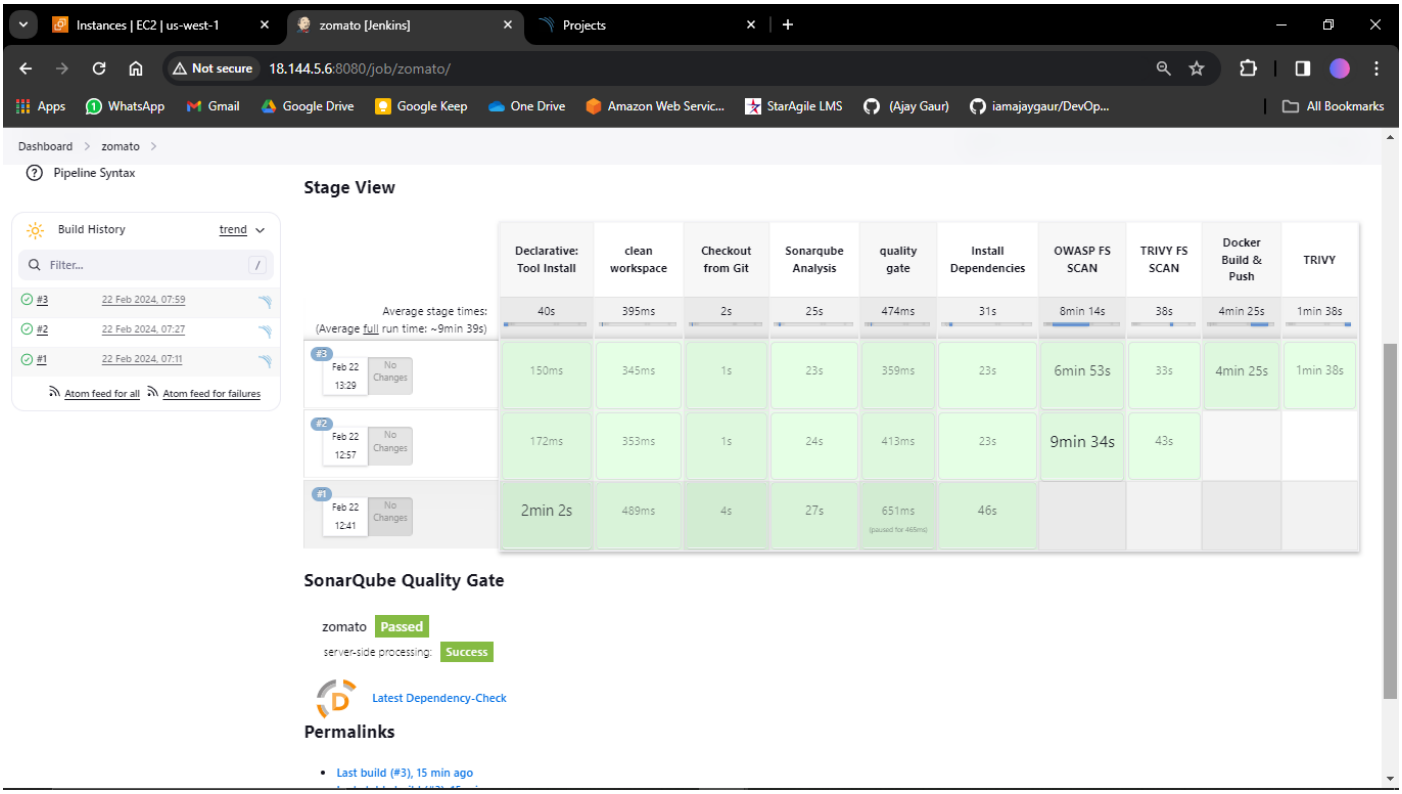


→ Build Now

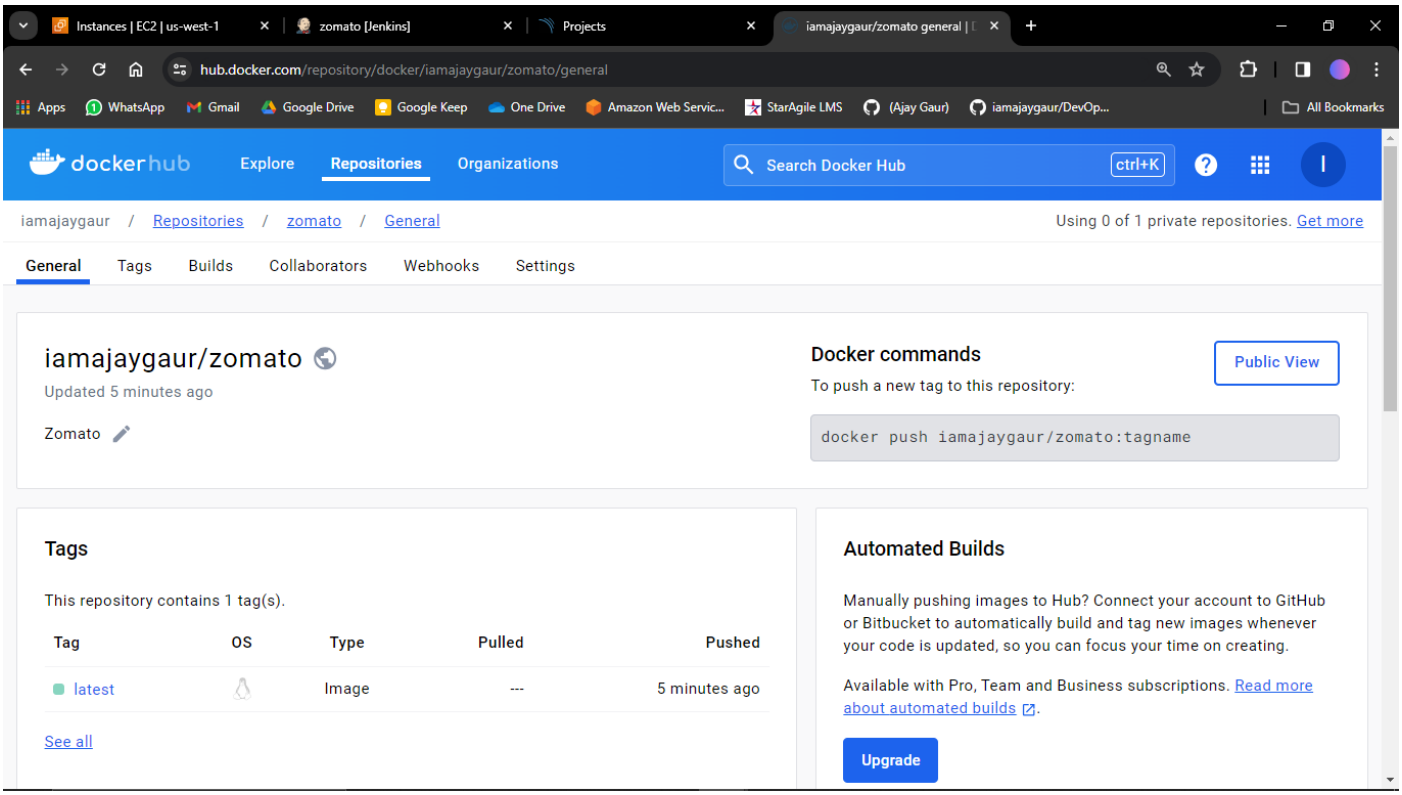
→ You will see the output below, with a dependency trend.

→ Refresh the page



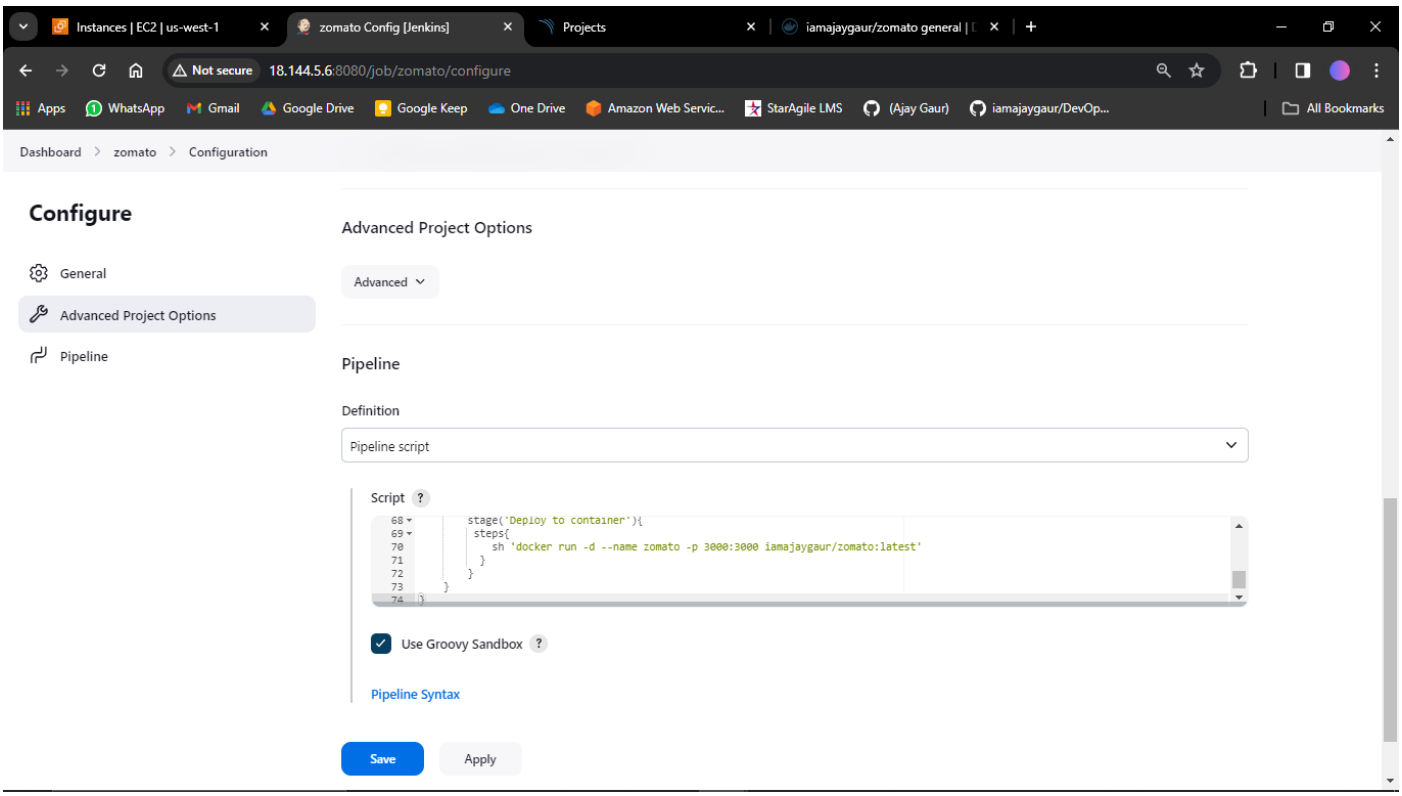


→ When you log in to Dockerhub, you will see a new image is created.



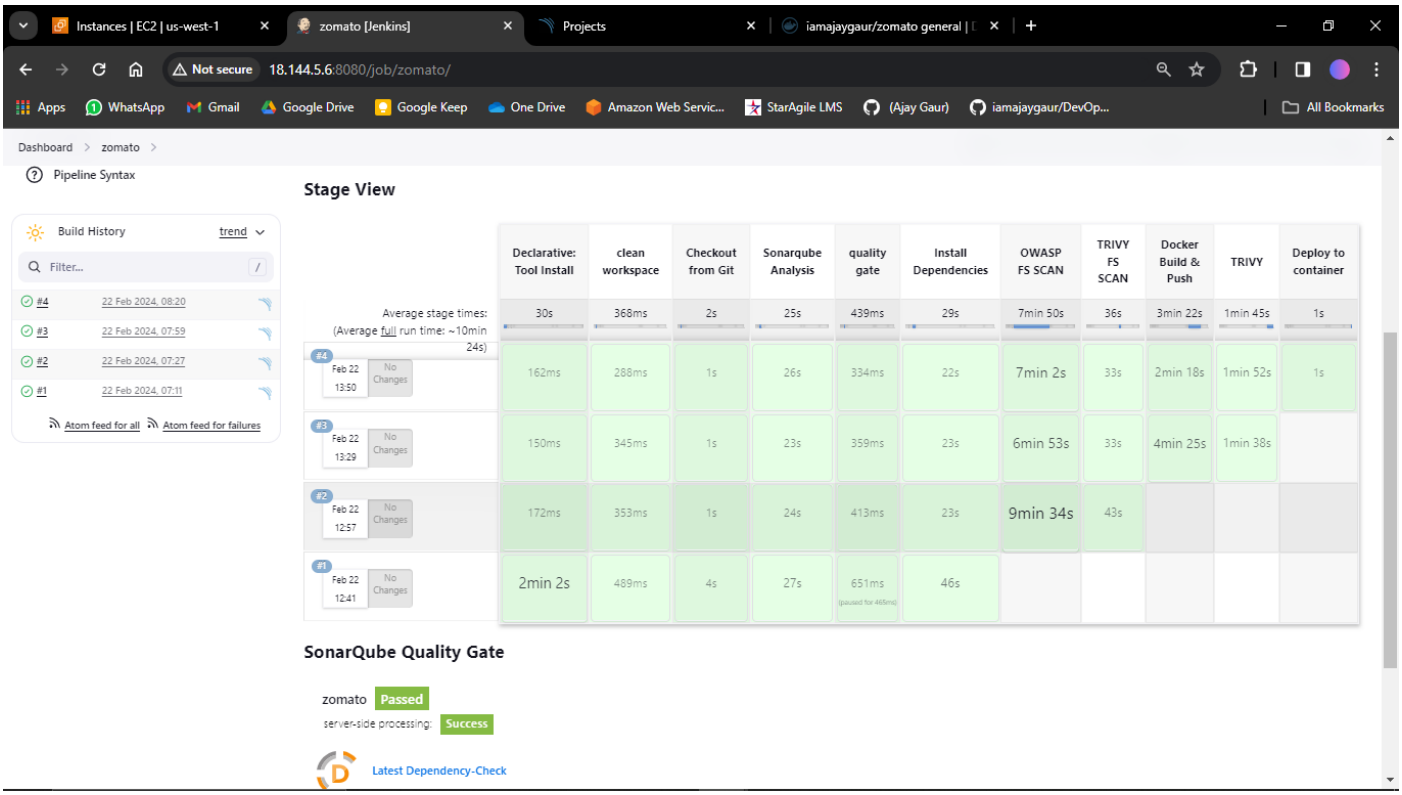
→ Now Run the container to see if the app coming up or not by adding the below stage

→ Click on Apply and Save



→ Build Now

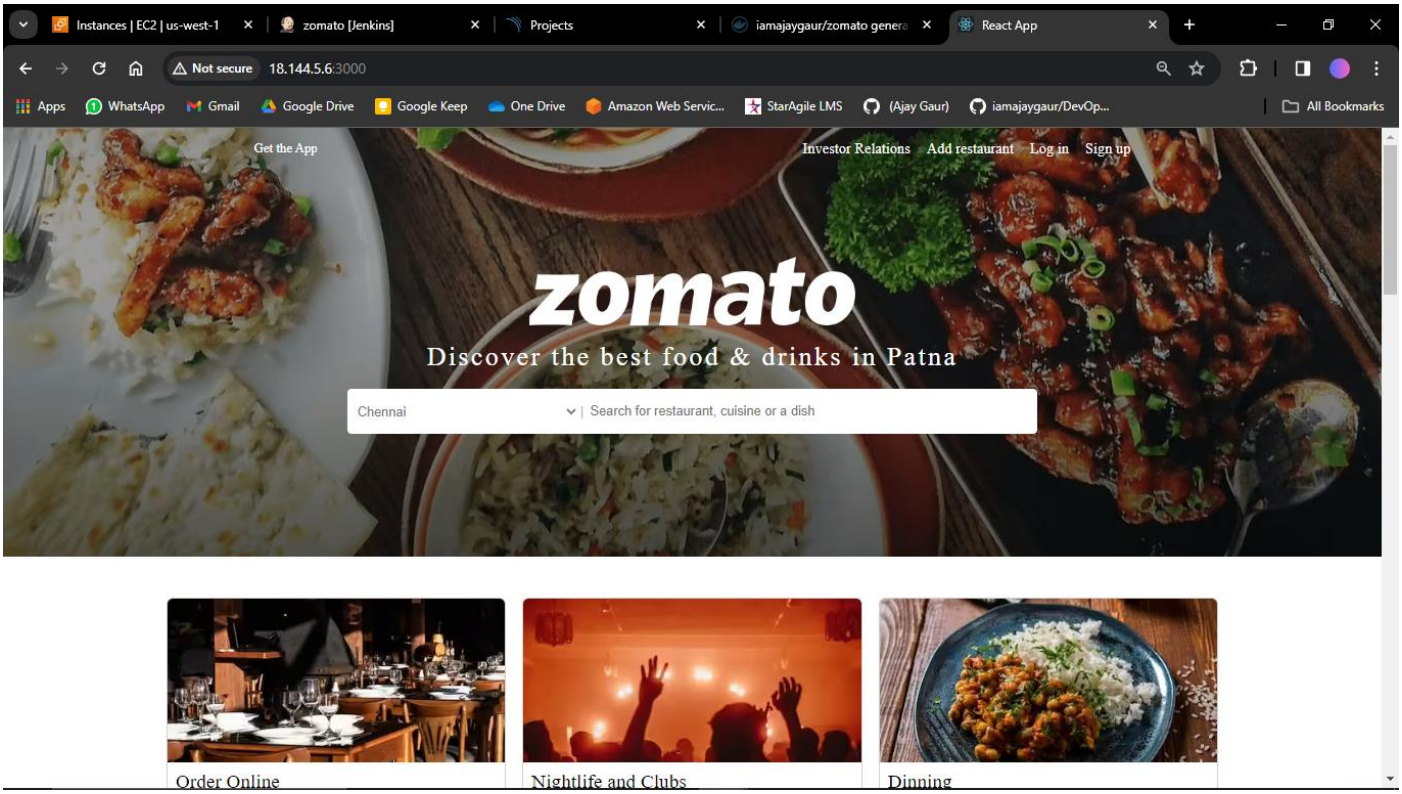
→ You can see the Container is deployed successfully in the below stages

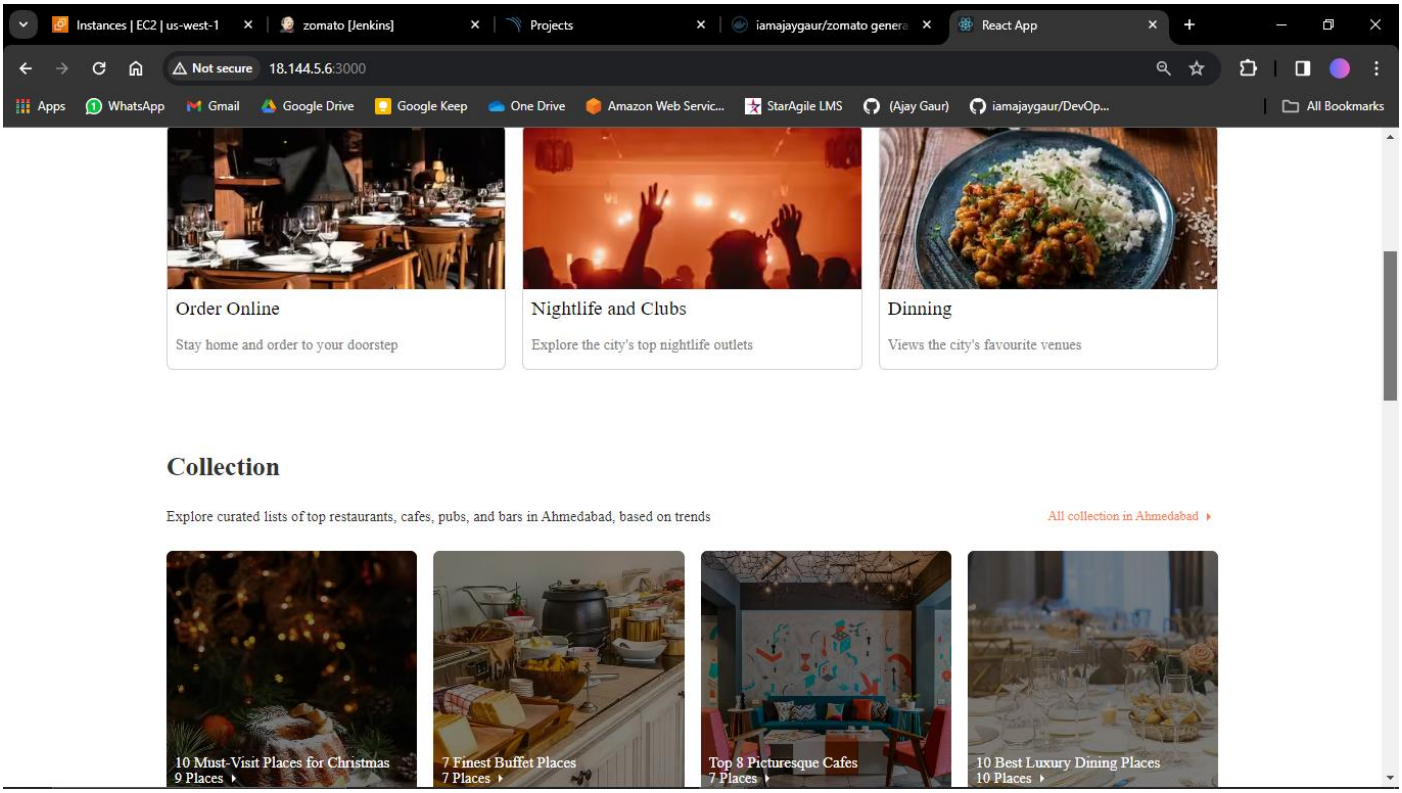


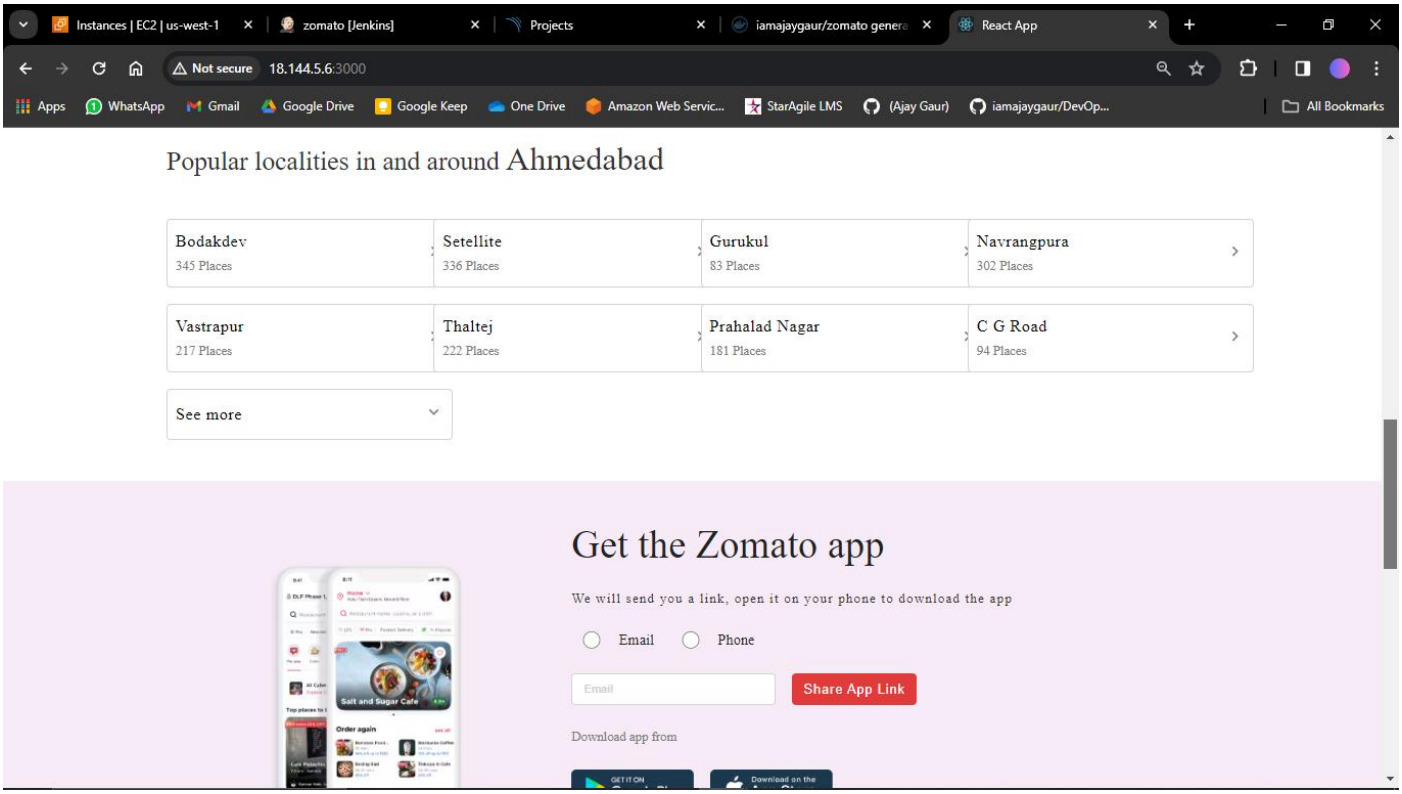
→ You can see now the Zomato app is deployed Successfully

→ http://<Jenkins-public-ip>:3000

→ You will get this output




Instances | EC2 | us-west-1
zomato [Jenkins]
Projects
iamajaygaur/zomato genera
React App
Not secure
18.144.5.6:3000
Apps
WhatsApp
Gmail
Google Drive
Google Keep
One Drive
Amazon Web Servic...
StarAgile LMS
(Ajay Gaur)
iamajaygaur/DevOp...
All Bookmarks
Order Online
Stay home and order to your doorstep
Nightlife and Clubs
Explore the city's top nightlife outlets
Dinning
Views the city's favourite venues
Collection
Explore curated lists of top restaurants, cafes, pubs, and bars in Ahmedabad, based on trends
All collection in Ahmedabad
10 Must-Visit Places for Christmas
9 Places
7 Finest Buffet Places
7 Places
Top 8 Picturesque Cafes
7 Places
10 Best Luxury Dining Places
10 Places


Instances | EC2 | us-west-1
zomato [Jenkins]
Projects
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React App
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18.144.5.6:3000
Apps
WhatsApp
Gmail
Google Drive
Google Keep
One Drive
Amazon Web Servic...
StarAgile LMS
(Ajay Gaur)
iamajaygaur/DevOp...
All Bookmarks
Popular localities in and around Ahmedabad
Bodakdev
345 Places
Setellite
336 Places
Gurukul
83 Places
Navrangpura
302 Places
Vastrapur
217 Places
Thaltej
222 Places
Prahalad Nagar
181 Places
C G Road
94 Places
See more
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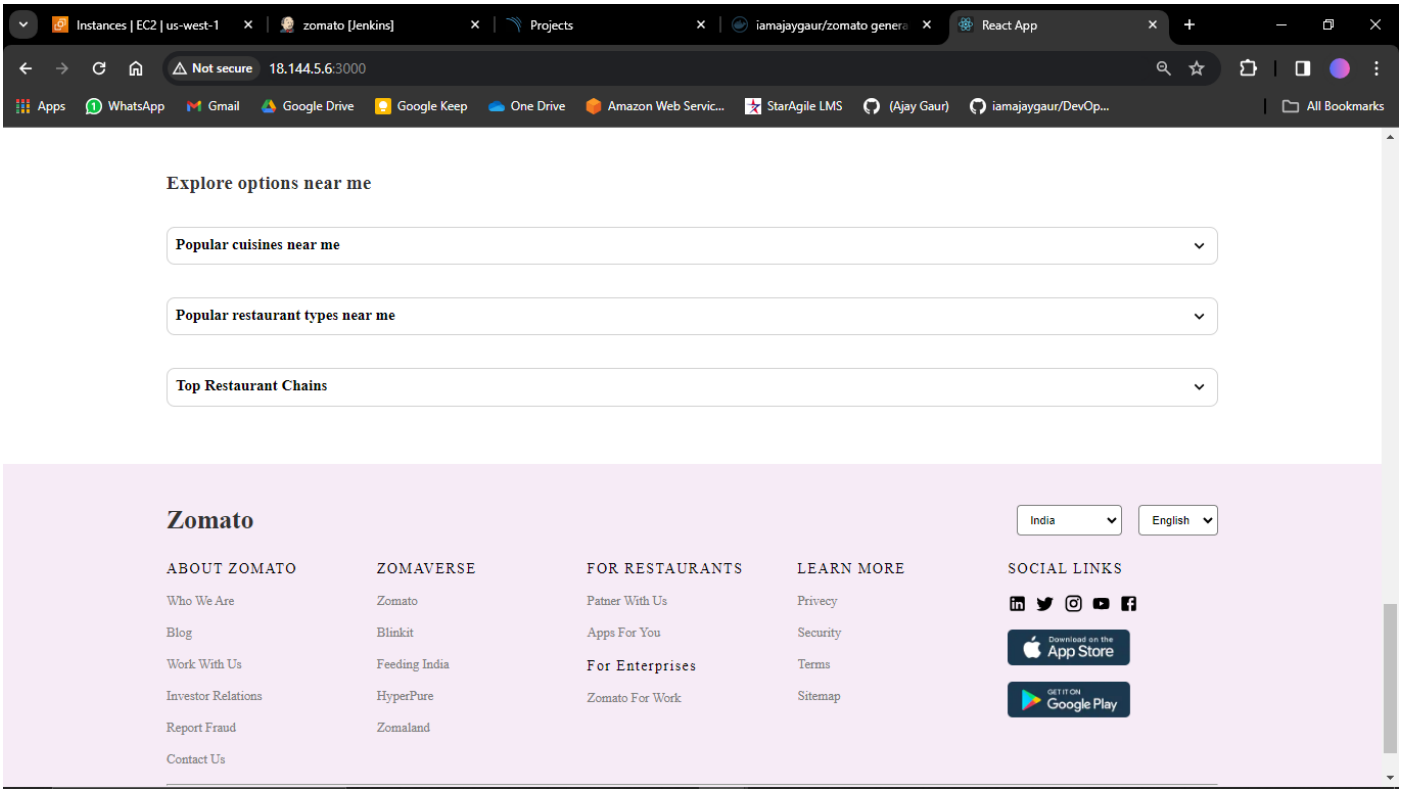

Step - 8: Terminate instances.