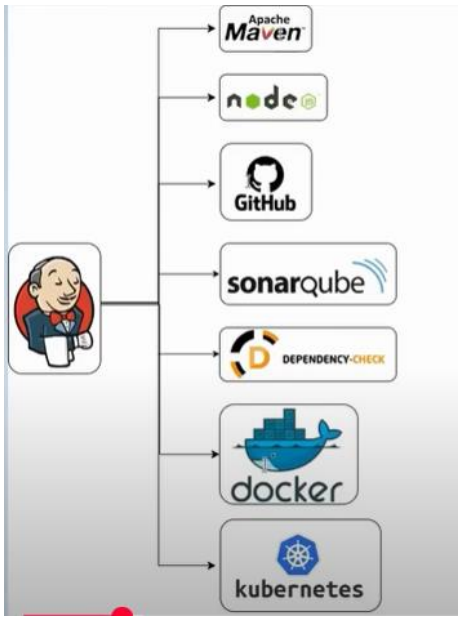
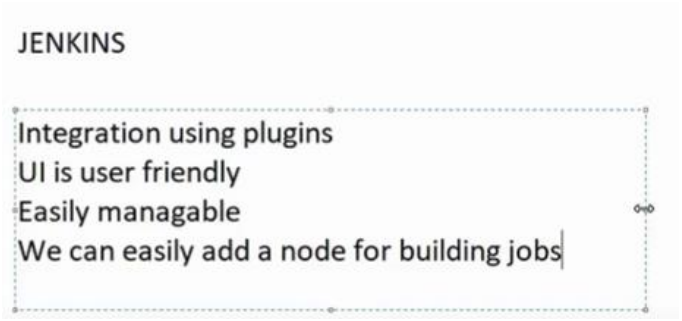
30 Days Of DevOps | Zero To Hero | Day-4

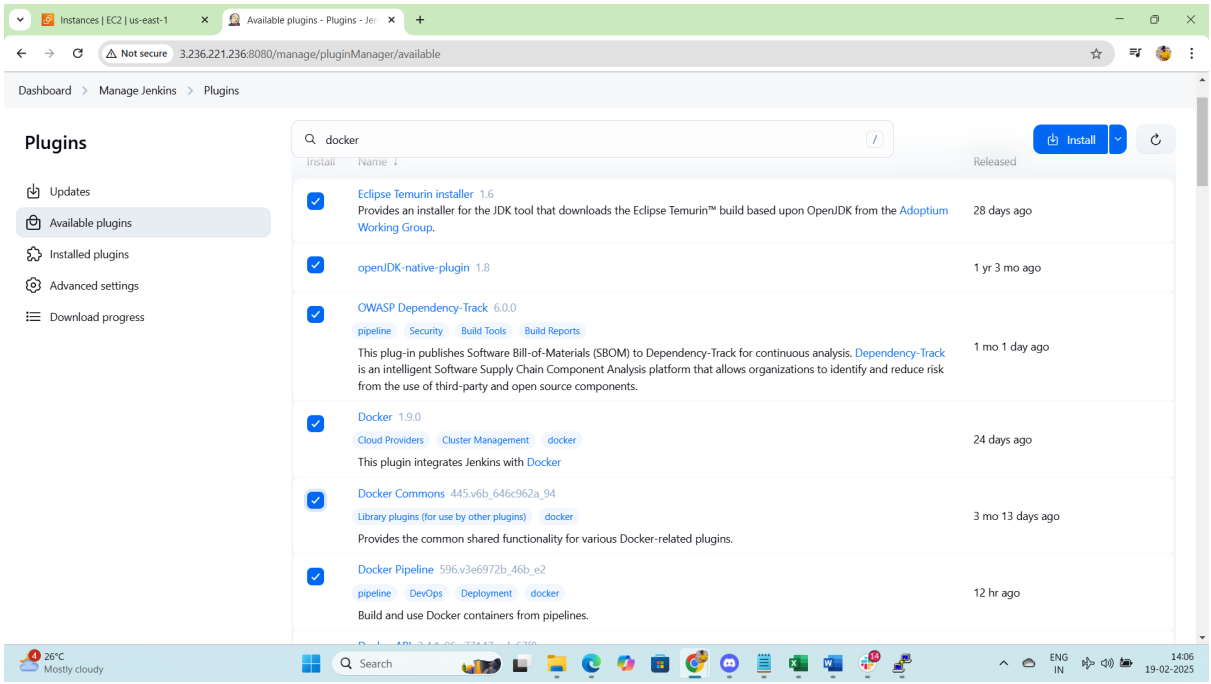
-Devops Shack

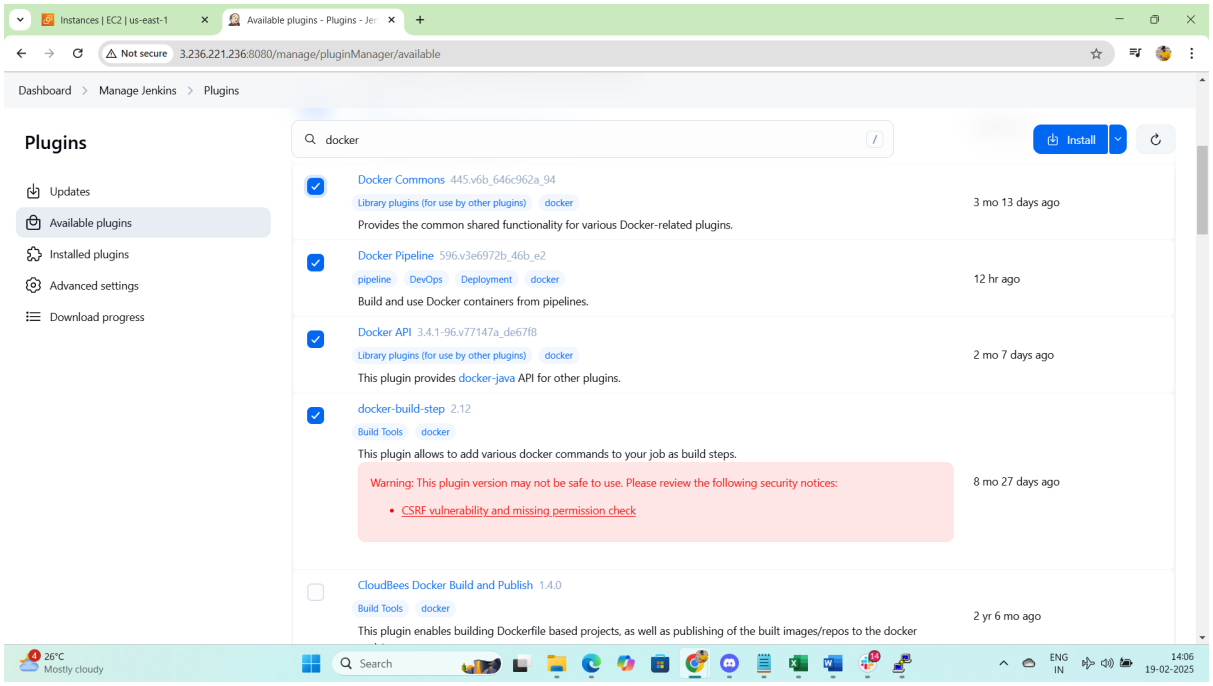
Jenkins | CI CD Pipeline

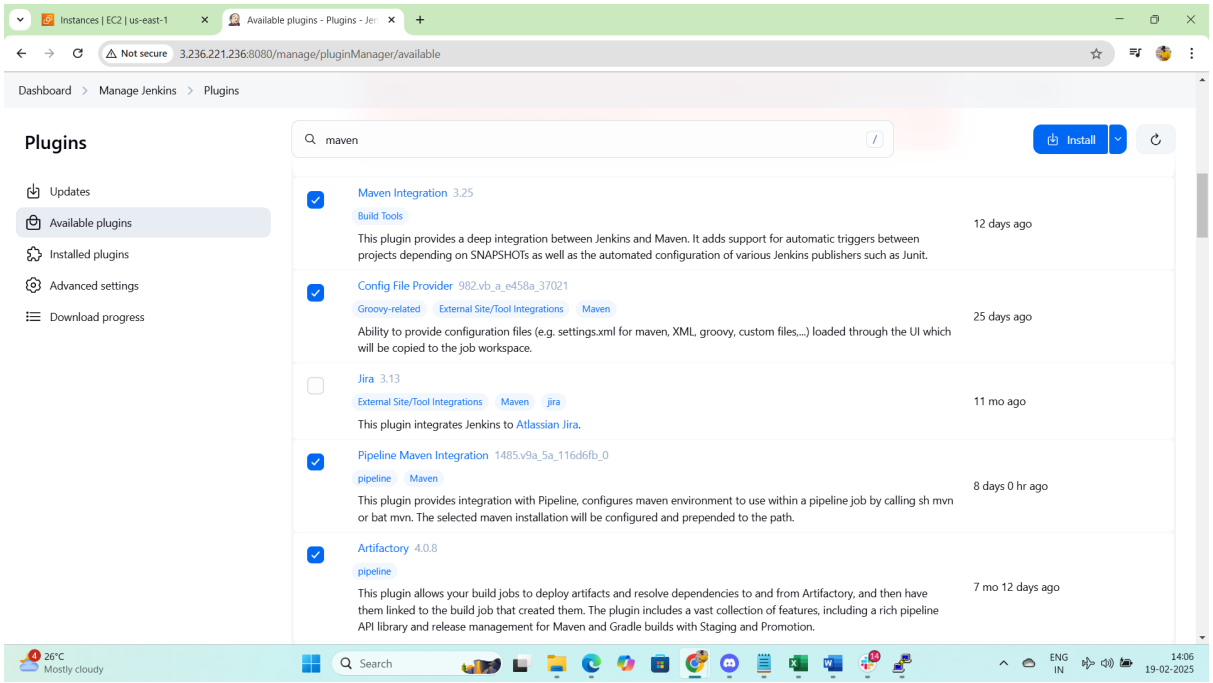


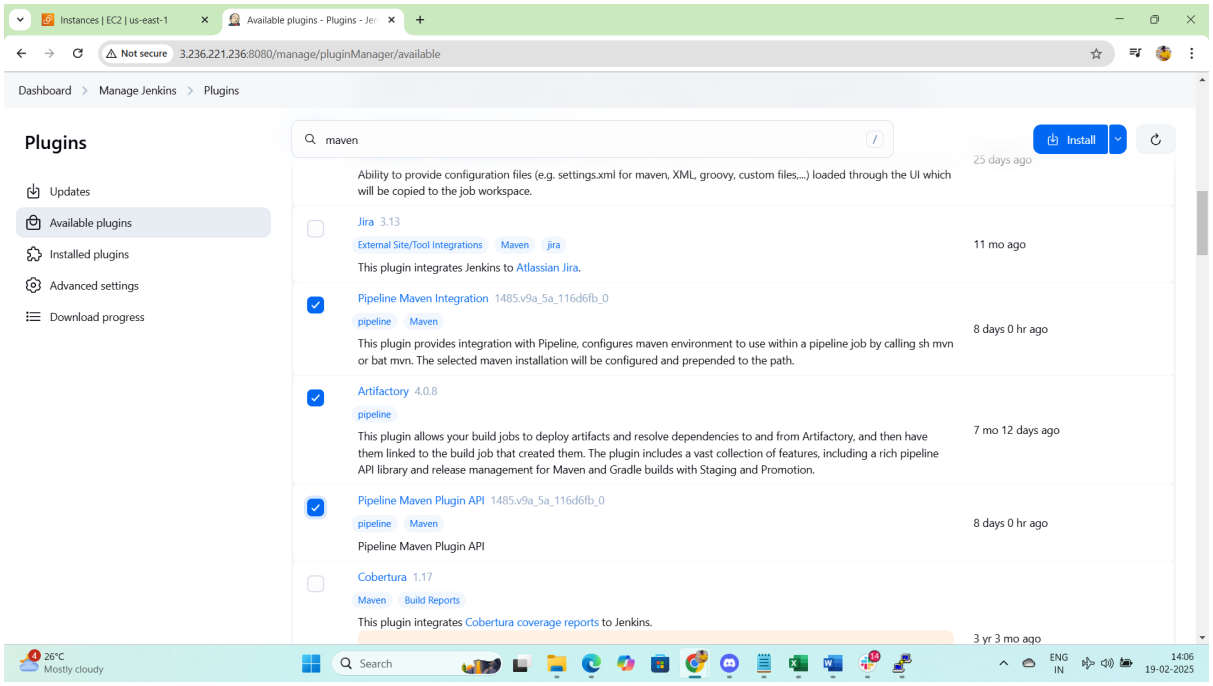


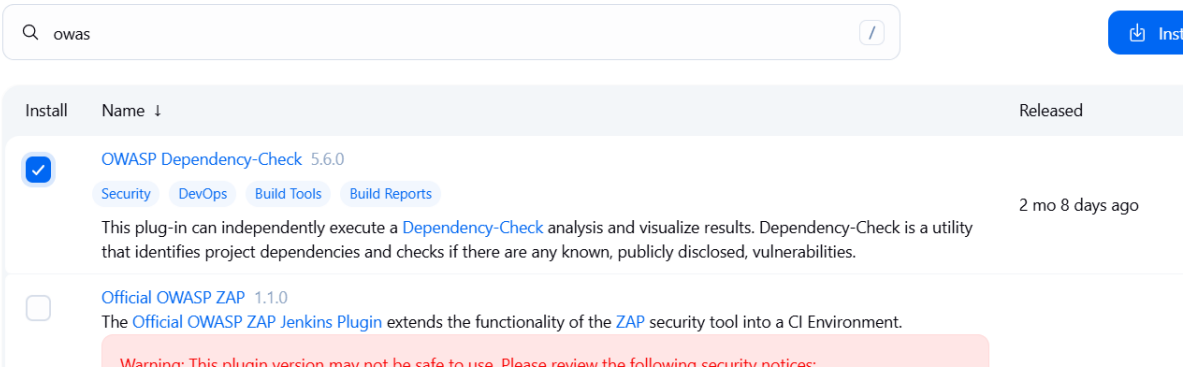
Java & Jenkins are installed.




Instances | EC2 | us-east-1
Available plugins - Plugins - Jen
Not secure
3.236.221.236:8080/manage/pluginManager/available
Dashboard
Manage Jenkins
Plugins
Plugins
Updates
Available plugins
Installed plugins
Advanced settings
Download progress
docker
Install
Docker Commons 445.v6b_646c962a_94
Library plugins (for use by other plugins)
docker
Provides the common shared functionality for various Docker-related plugins.
3 mo 13 days ago
Docker Pipeline 596.v3e6972b_46b_e2
pipeline
DevOps
Deployment
docker
Build and use Docker containers from pipelines.
12 hr ago
Docker API 3.4.1-96.v77147a_de67f8
Library plugins (for use by other plugins)
docker
This plugin provides docker-java API for other plugins.
2 mo 7 days ago
docker-build-step 2.12
Build Tools
docker
This plugin allows to add various docker commands to your job as build steps.
Warning: This plugin version may not be safe to use. Please review the following security notices:
CSRF vulnerability and missing permission check
8 mo 27 days ago
CloudBees Docker Build and Publish 1.4.0
Build Tools
docker
This plugin enables building Dockerfile based projects, as well as publishing of the built images/repos to the docker
2 yr 6 mo ago
26°C
Mostly cloudy
Search
ENG
IN
14:06
19-02-2025


Instances | EC2 | us-east-1
Available plugins - Plugins - Jen
Not secure
3.236.221.236:8080/manage/pluginManager/available
Dashboard
Manage Jenkins
Plugins
Plugins
Updates
Available plugins
Installed plugins
Advanced settings
Download progress
maven
Install
Maven Integration 3.25
Build Tools
This plugin provides a deep integration between Jenkins and Maven. It adds support for automatic triggers between projects depending on SNAPSHOTs as well as the automated configuration of various Jenkins publishers such as Junit.
12 days ago
Config File Provider 982.vb_a_e458a_37021
Groovy-related
External Site/Tool Integrations
Maven
Ability to provide configuration files (e.g. settings.xml for maven, XML, groovy, custom files,...) loaded through the UI which will be copied to the job workspace.
25 days ago
Jira 3.13
External Site/Tool Integrations
Maven
jira
This plugin integrates Jenkins to Atlassian Jira.
11 mo ago
Pipeline Maven Integration 1485.v9a_5a_116d6fb_0
pipeline
Maven
This plugin provides integration with Pipeline, configures maven environment to use within a pipeline job by calling sh mvn or bat mvn. The selected maven installation will be configured and prepended to the path.
8 days 0 hr ago
Artifactory 4.0.8
pipeline
This plugin allows your build jobs to deploy artifacts and resolve dependencies to and from Artifactory, and then have them linked to the build job that created them. The plugin includes a vast collection of features, including a rich pipeline API library and release management for Maven and Gradle builds with Staging and Promotion.
7 mo 12 days ago
26°C
Mostly cloudy
Search
ENG
IN
14:06
19-02-2025



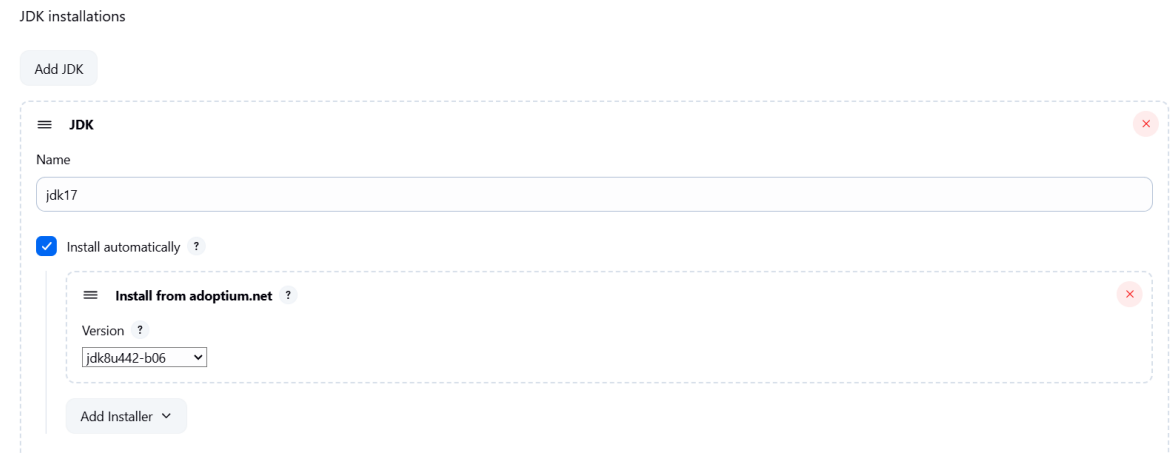


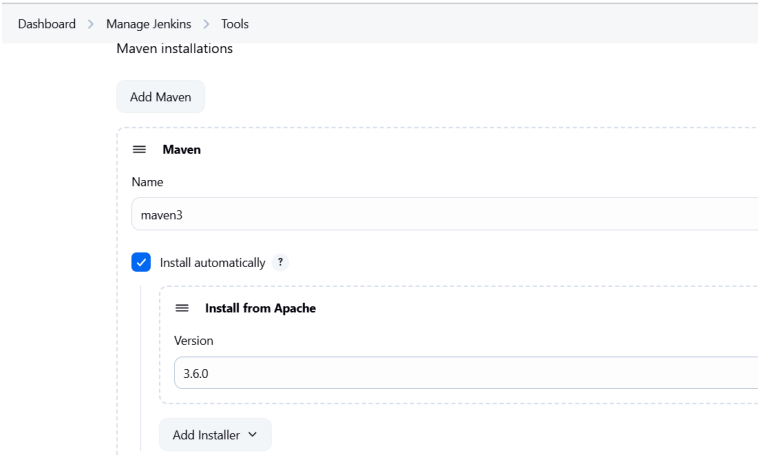
Download progress

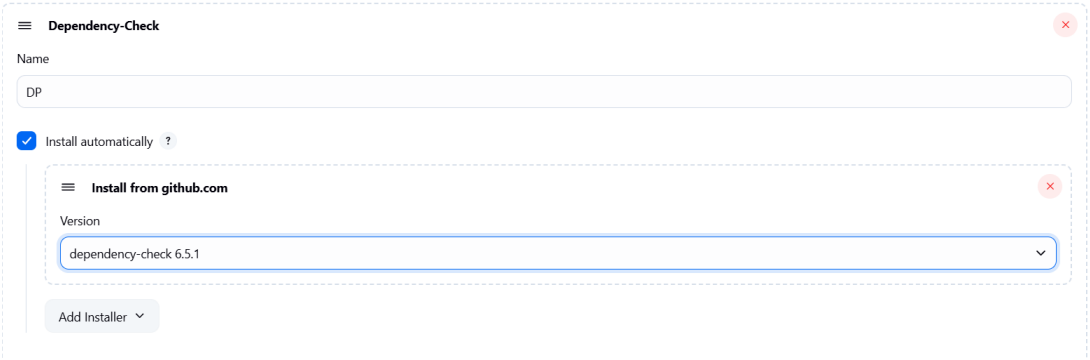
Preparation

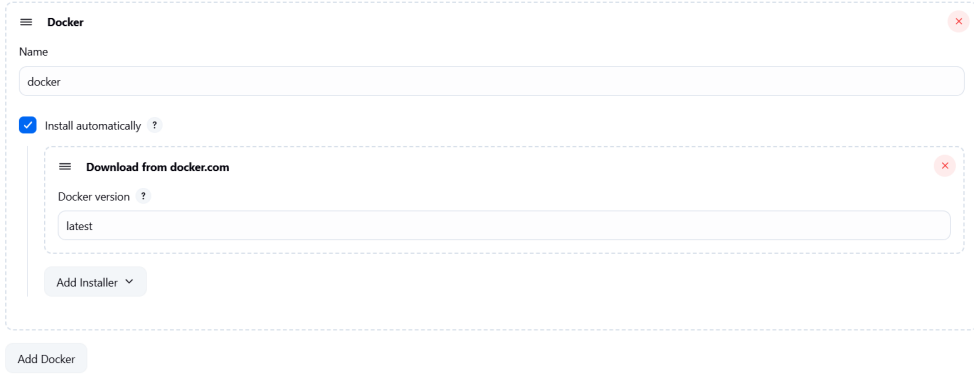
- Checking internet connectivity
- Checking update center connectivity
- Success

Ionicons API	Success
Folders	Success
OWASP Markup Formatter	Success
ASM API	Success
JSON Path API	Success
Structs	Success
Pipeline: Step API	Success
Token Macro	Success
Build Timeout	Success
bouncycastle API	Success
Credentials	Success

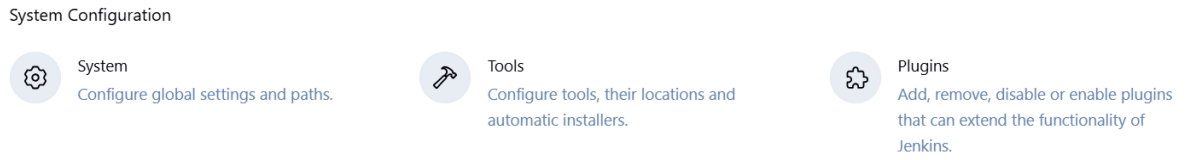

JDK installations
Add JDK
JDK
Name
jdk17
Install automatically
Install from adoptium.net
Version
jdk8u442-b06
Add Installer


Dashboard
Manage Jenkins
Tools
Maven installations
Add Maven
Maven
Name
maven3
Install automatically
Install from Apache
Version
3.6.0
Add Installer


Dependency-Check
Name
DP
Install automatically
Install from github.com
Version
dependency-check 6.5.1
Add Installer


Docker
Name
docker
Install automatically
Download from docker.com
Docker version
latest
Add Installer
Add Docker

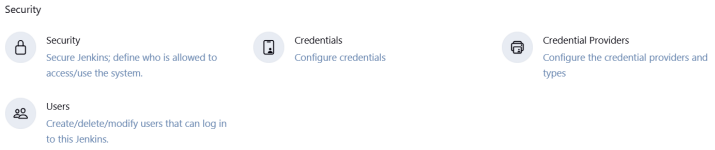
-jenkins usage.



-add plugins.

-manage jenkins-> tools -> configured them like what type of version need to download and where it should be downloaded.

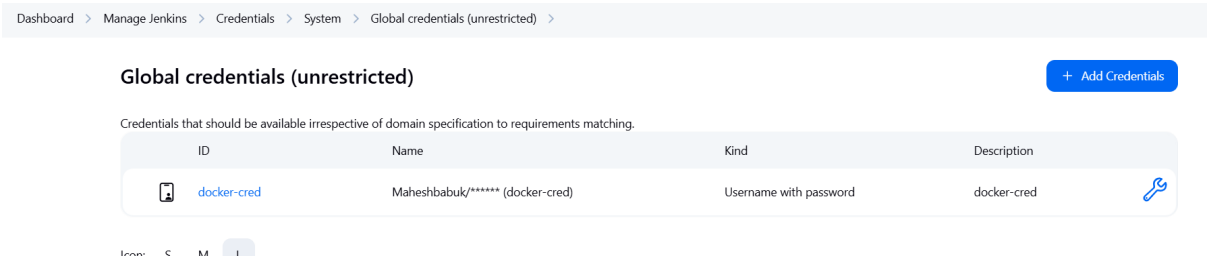
- manage jenkins-> System ->configure the server like sonar server,SMPT gmail,maven, apache..



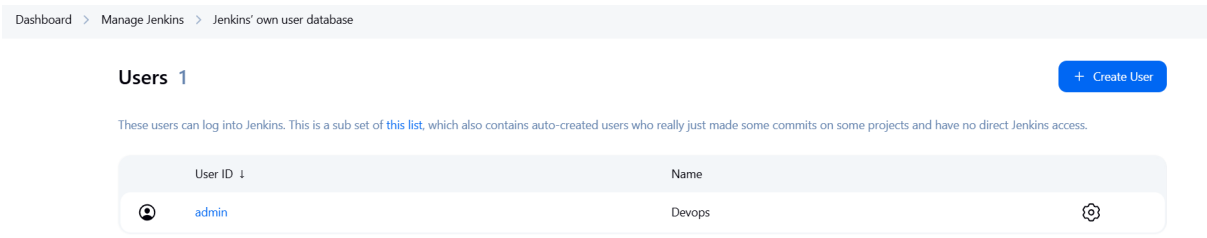
-

-Under credientials we add other tools credientials like secrete text and password like docker,sonar,mail,

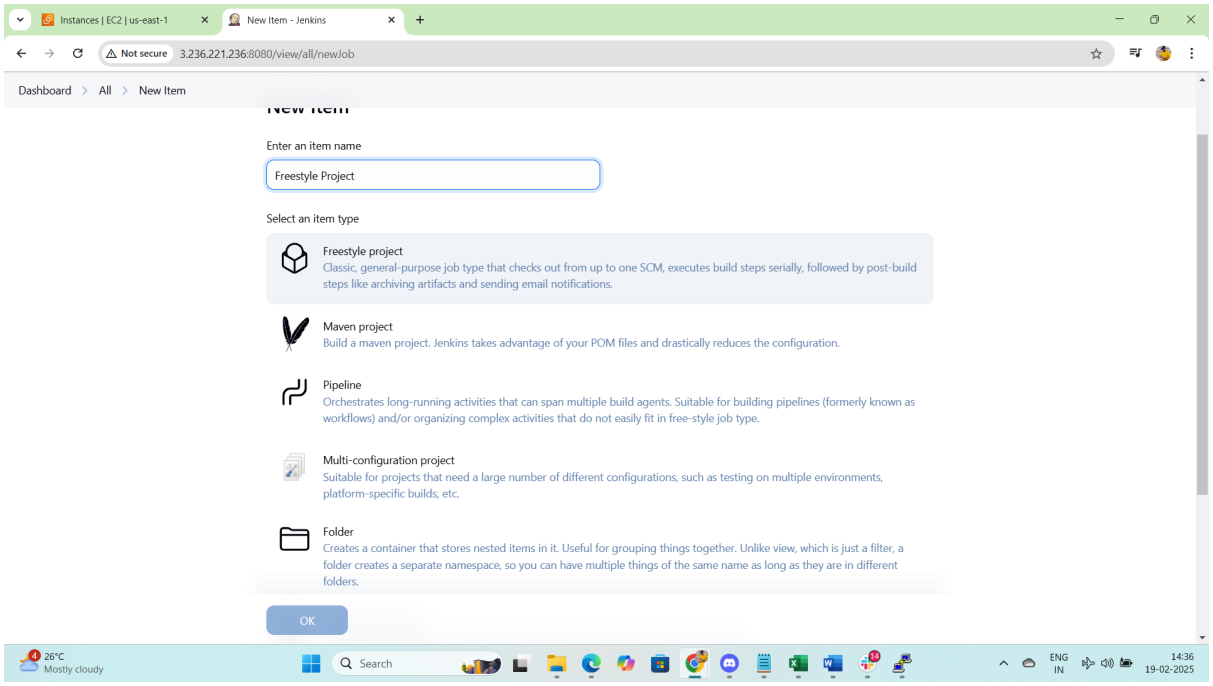
Docker credentials are added.



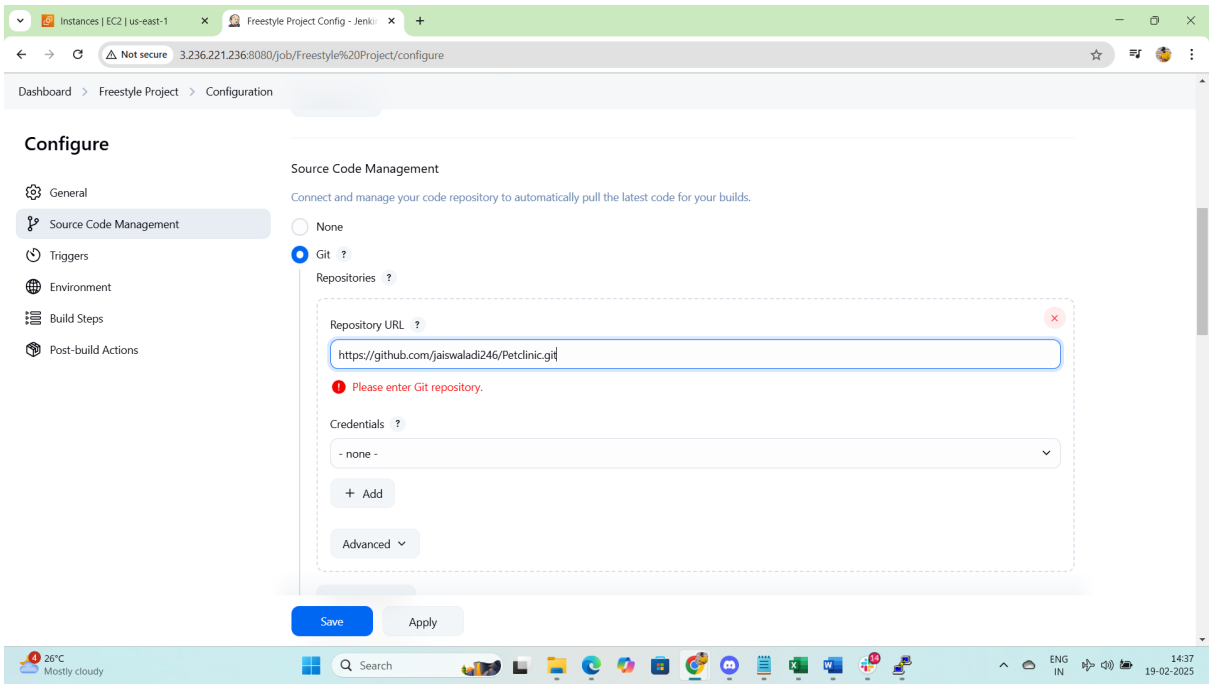
-User we can add an user and gave like to access to other person.

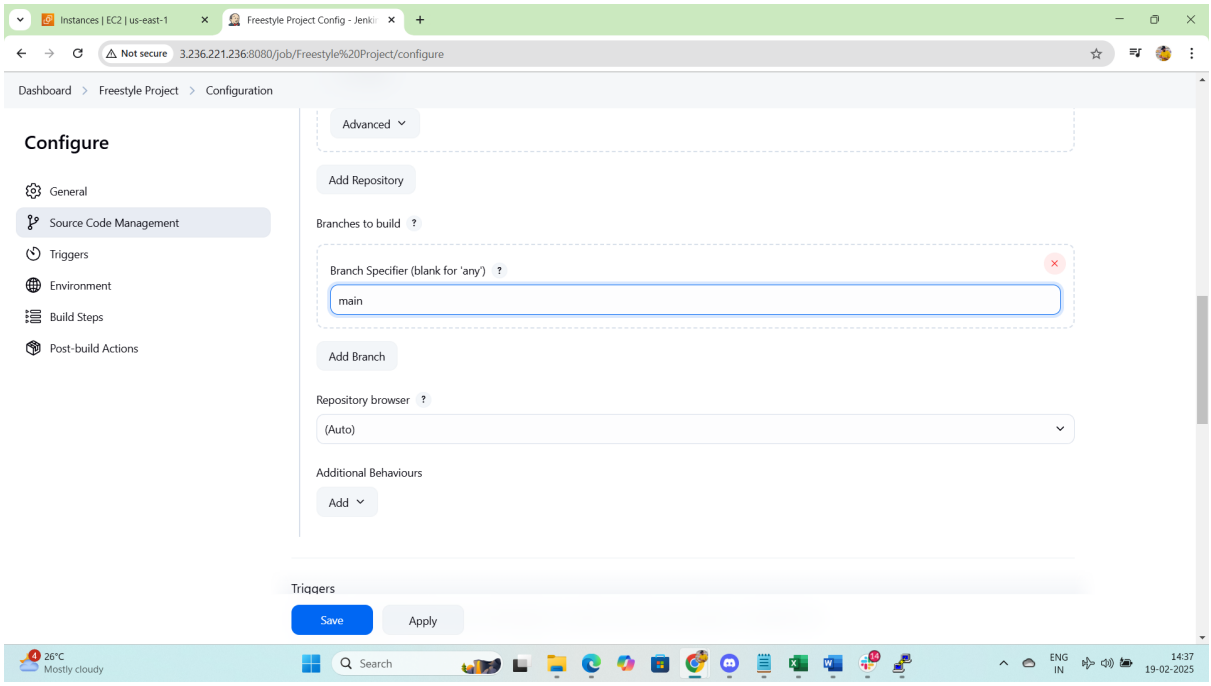


Now we explore it from starting and basics.

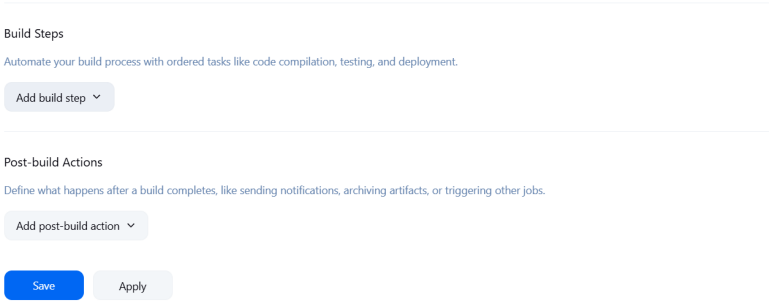


Add git source code line as shown.



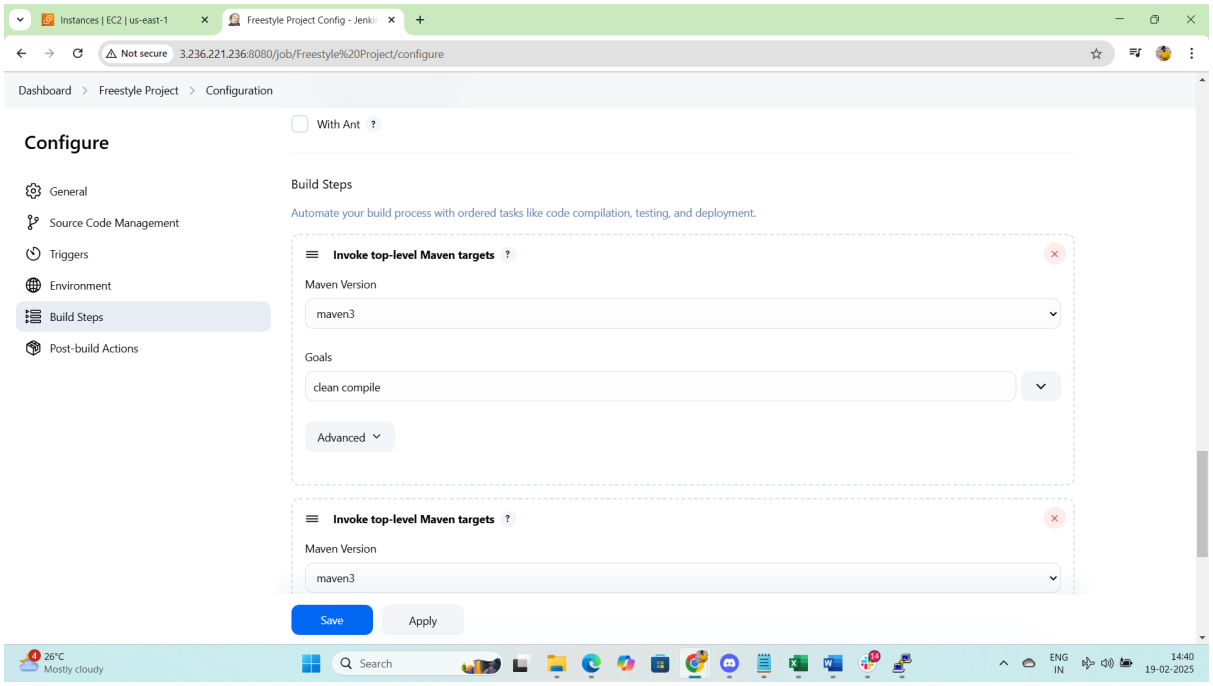


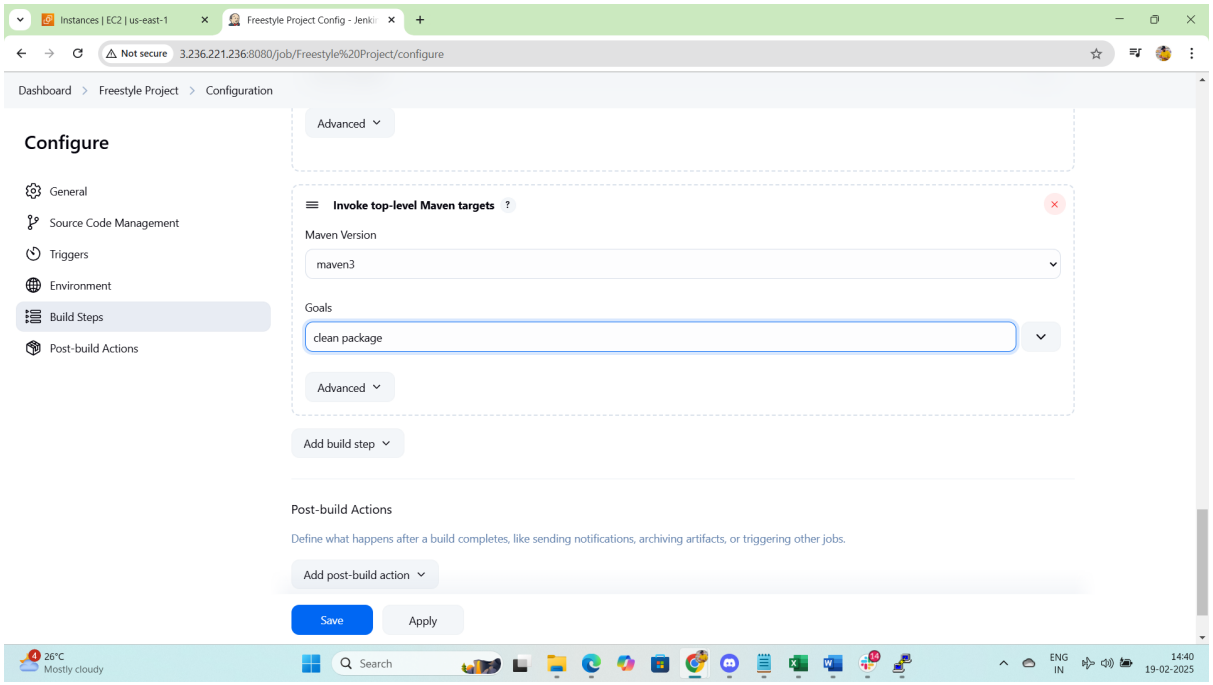
If it is private repository we have to configured the credentials.



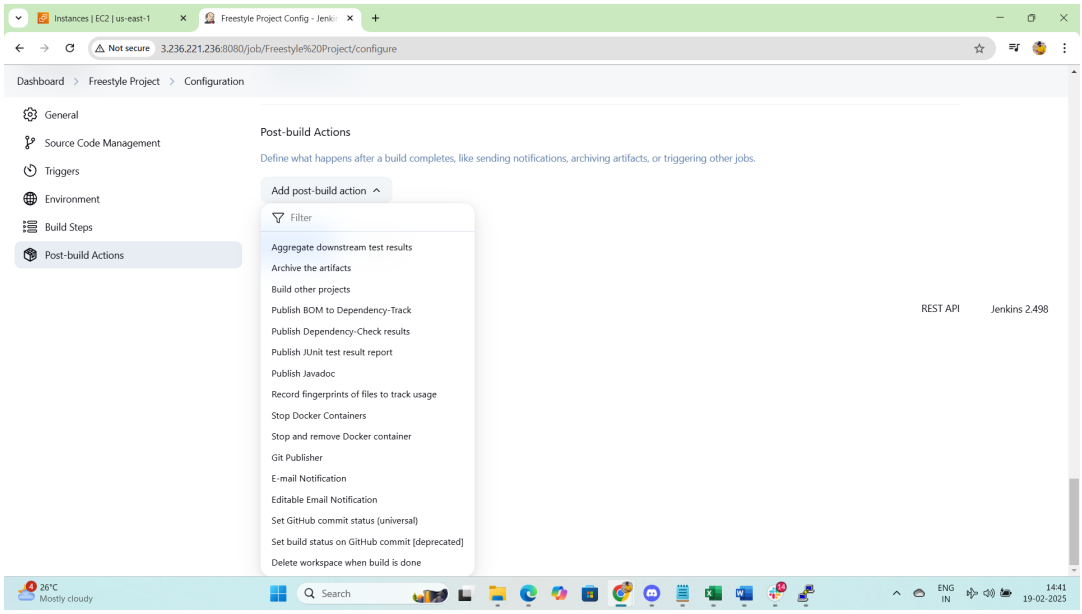
we have build steps

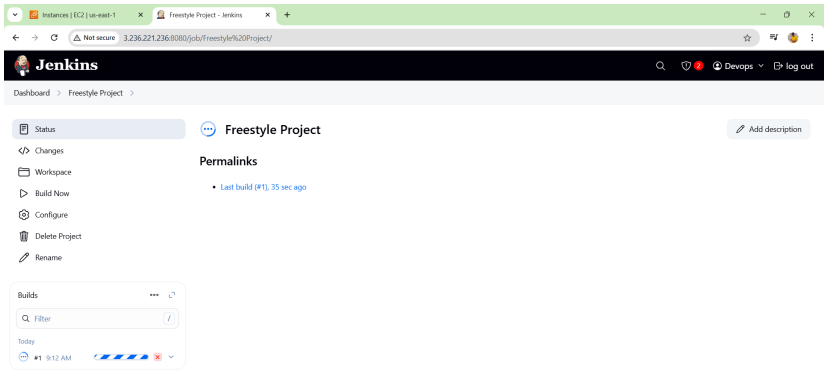
we can use this to build the stages.



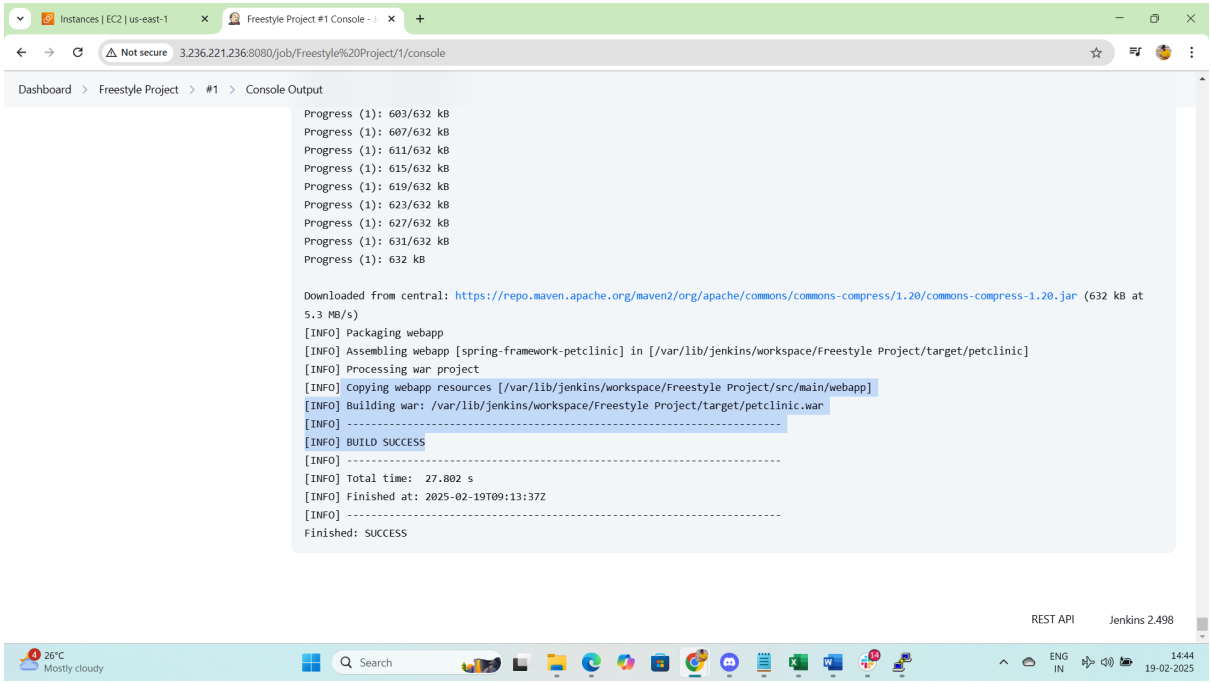


We also have the post build action we use as we want.





We can build now



Now we install tomcat server.

```
Last login: Wed Feb 19 06:19:30 2025 from 49.205.103.217
ubuntu@ip-172-31-76-253:~$ sudo su
root@ip-172-31-76-253:/home/ubuntu# cd /opt
root@ip-172-31-76-253:/opt# sudo wget https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.65/bin/apache-tomcat-9.0.65.tar.gz
--2025-02-19 09:15:54--  https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.65/bin/apache-tomcat-9.0.65.tar.gz
Resolving archive.apache.org (archive.apache.org)... 65.108.204.189, 2a01:4f9:1a:a084::2
Connecting to archive.apache.org (archive.apache.org)|65.108.204.189|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 11593900 (11M) [application/x-gzip]
Saving to: 'apache-tomcat-9.0.65.tar.gz'

apache-tomcat-9.0.65.tar.gz         7%[===>                                                 ] 882.70K   320KB/s
```

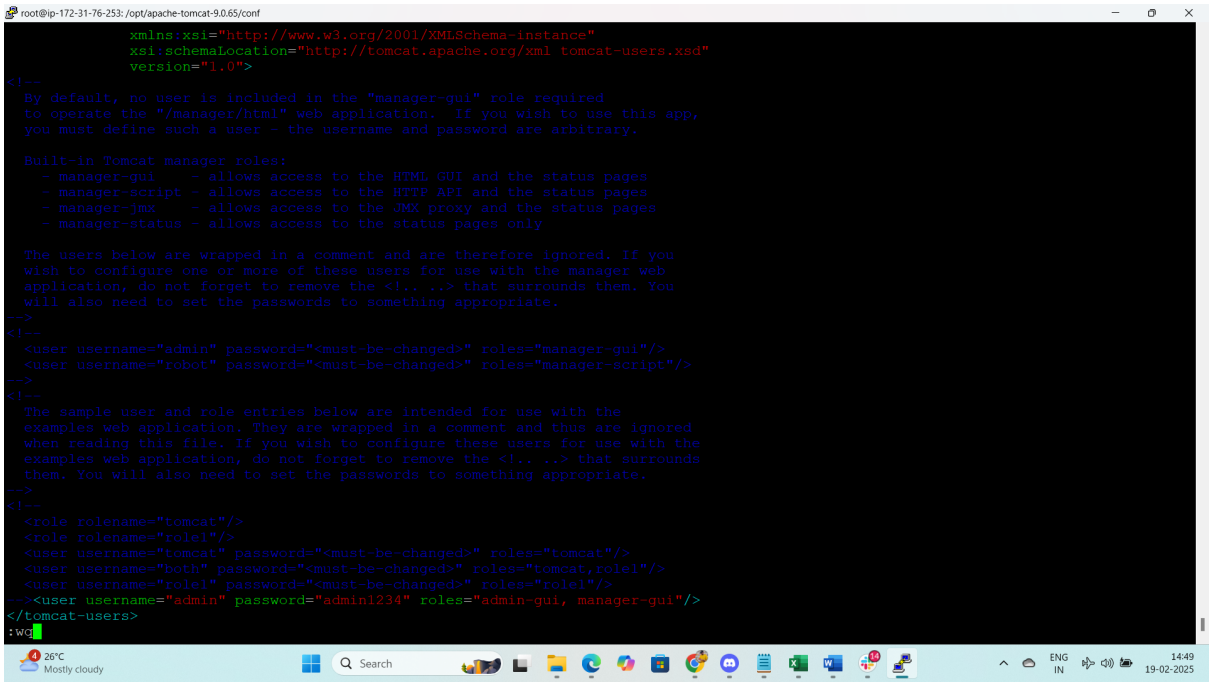
```
Last login: Wed Feb 19 06:19:30 2025 from 49.205.103.217
ubuntu@ip-172-31-76-253:~$ sudo su
root@ip-172-31-76-253:/home/ubuntu# cd /opt
root@ip-172-31-76-253:/opt# sudo wget https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.65/bin/apache-tomcat-9.0.65.tar.gz
--2025-02-19 09:15:54--  https://archive.apache.org/dist/tomcat/tomcat-9/v9.0.65/bin/apache-tomcat-9.0.65.tar.gz
Resolving archive.apache.org (archive.apache.org)... 65.108.204.189, 2a01:4f9:1a:a084::2
Connecting to archive.apache.org (archive.apache.org)|65.108.204.189|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 11593900 (11M) [application/x-gzip]
Saving to: 'apache-tomcat-9.0.65.tar.gz'

apache-tomcat-9.0.65.tar.gz       100%[=============================================================>]  11.06M   291KB/s    in 37s

2025-02-19 09:16:32 (304 KB/s) - 'apache-tomcat-9.0.65.tar.gz' saved [11593900/11593900]

root@ip-172-31-76-253:/opt#
```

```
apache-tomcat-9.0.65/bin/version.sh
root@ip-172-31-76-253:/opt# ls
apache-tomcat-9.0.65  apache-tomcat-9.0.65.tar.gz
root@ip-172-31-76-253:/opt#
```

```
apache-tomcat-9.0.65  apache-tomcat-9.0.65.tar.gz
root@ip-172-31-76-253:/opt# cd /opt/apache-tomcat-9.0.65/conf
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf#
```

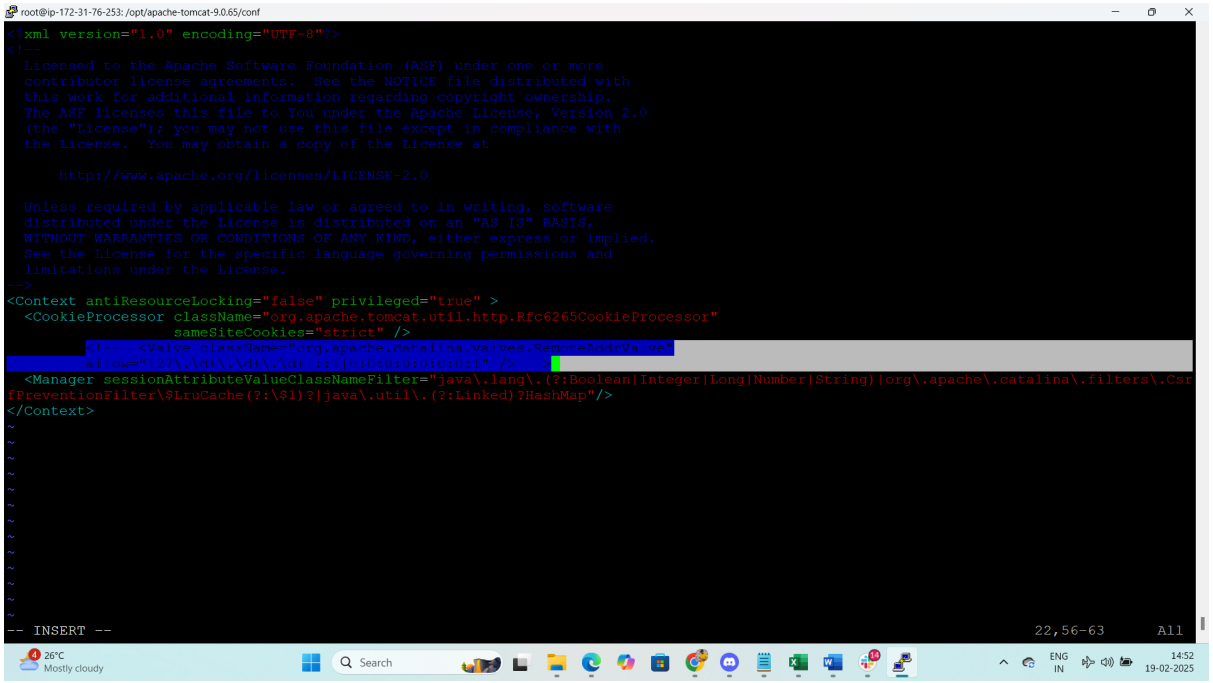
root@ip-172-31-76-253: /opt/apache-tomcat-9.0.65/conf

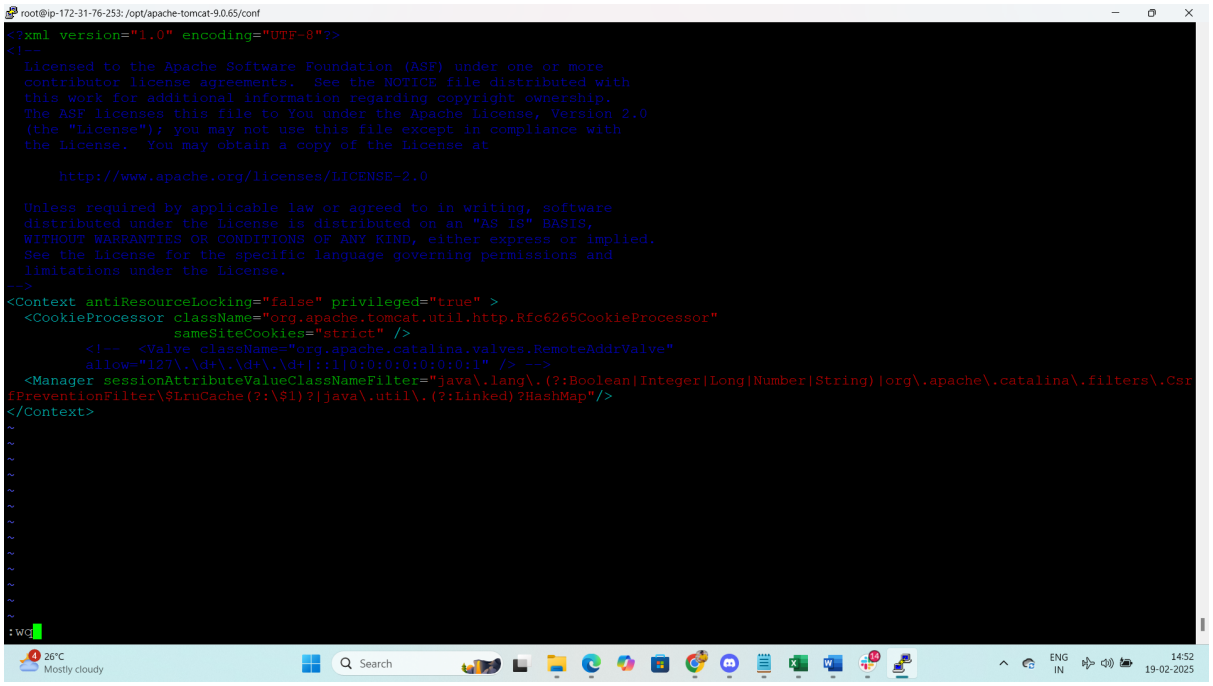
```
            xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
            xsi:schemaLocation="http://tomcat.apache.org/xml tomcat-users.xsd"
            version="1.0">
<!--
  By default, no user is included in the "manager-gui" role required
  to operate the "/manager/html" web application.  If you wish to use this app,
  you must define such a user - the username and password are arbitrary.

  Built-in Tomcat manager roles:
    - manager-gui    - allows access to the HTML GUI and the status pages
    - manager-script - allows access to the HTTP API and the status pages
    - manager-jmx    - allows access to the JMX proxy and the status pages
    - manager-status - allows access to the status pages only

  The users below are wrapped in a comment and are therefore ignored. If you
  wish to configure one or more of these users for use with the manager web
  application, do not forget to remove the <!.. ..> that surrounds them. You
  will also need to set the passwords to something appropriate.
-->
<!--
  <user username="admin" password="<must-be-changed>" roles="manager-gui"/>
  <user username="robot" password="<must-be-changed>" roles="manager-script"/>
-->
<!--
  The sample user and role entries below are intended for use with the
  examples web application. They are wrapped in a comment and thus are ignored
  when reading this file. If you wish to configure these users for use with the
  examples web application, do not forget to remove the <!.. ..> that surrounds
  them. You will also need to set the passwords to something appropriate.
-->
<!--
  <role rolename="tomcat"/>
  <role rolename="role1"/>
  <user username="tomcat" password="<must-be-changed>" roles="tomcat"/>
  <user username="both" password="<must-be-changed>" roles="tomcat,role1"/>
  <user username="role1" password="<must-be-changed>" roles="role1"/>
-->
<user username="admin" password="admin1234" roles="admin-gui, manager-gui"/>
</tomcat-users>
-- INSERT --                                                              55,80         Bot
```

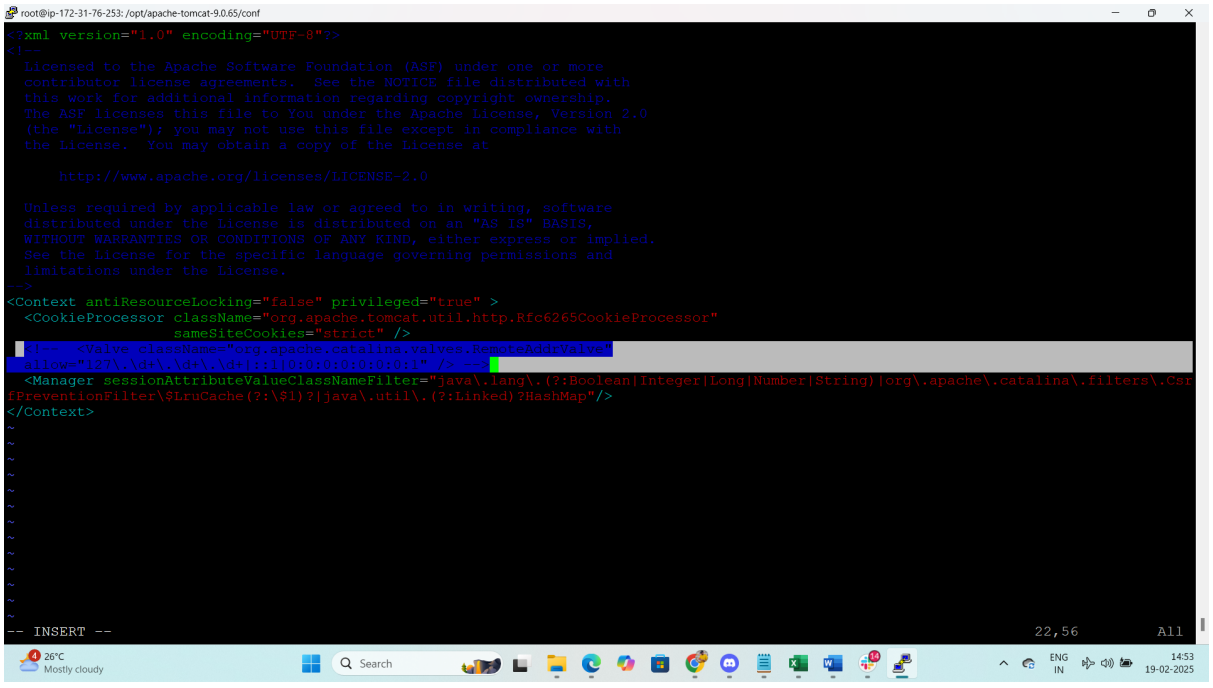


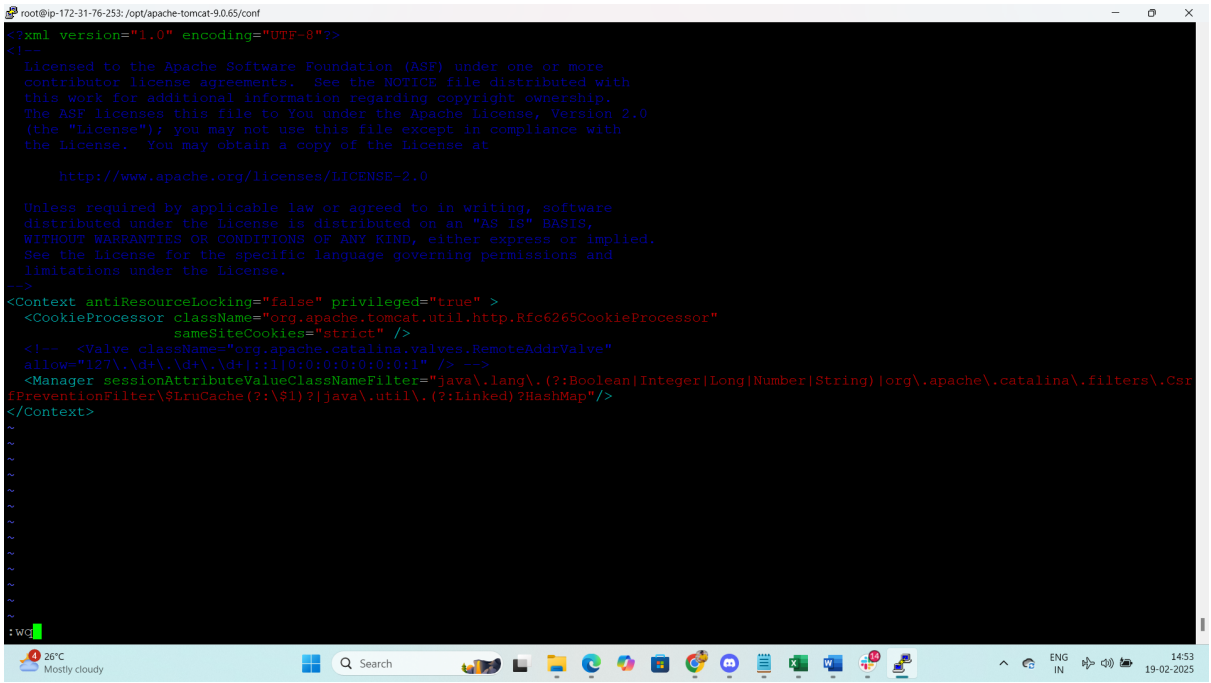

```
apache-tomcat-9.0.65  apache-tomcat-9.0.65.tar.gz
root@ip-172-31-76-253:/opt# cd /opt/apache-tomcat-9.0.65/conf
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf# sudo vi tomcat-users.xml
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf# sudo ln -s /opt/apache-tomcat-9.0.65/bin/startup.sh /usr/bin/startTomcat
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf# sudo ln -s /opt/apache-tomcat-9.0.65/bin/shutdown.sh /usr/bin/stopTomcat
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf#
```

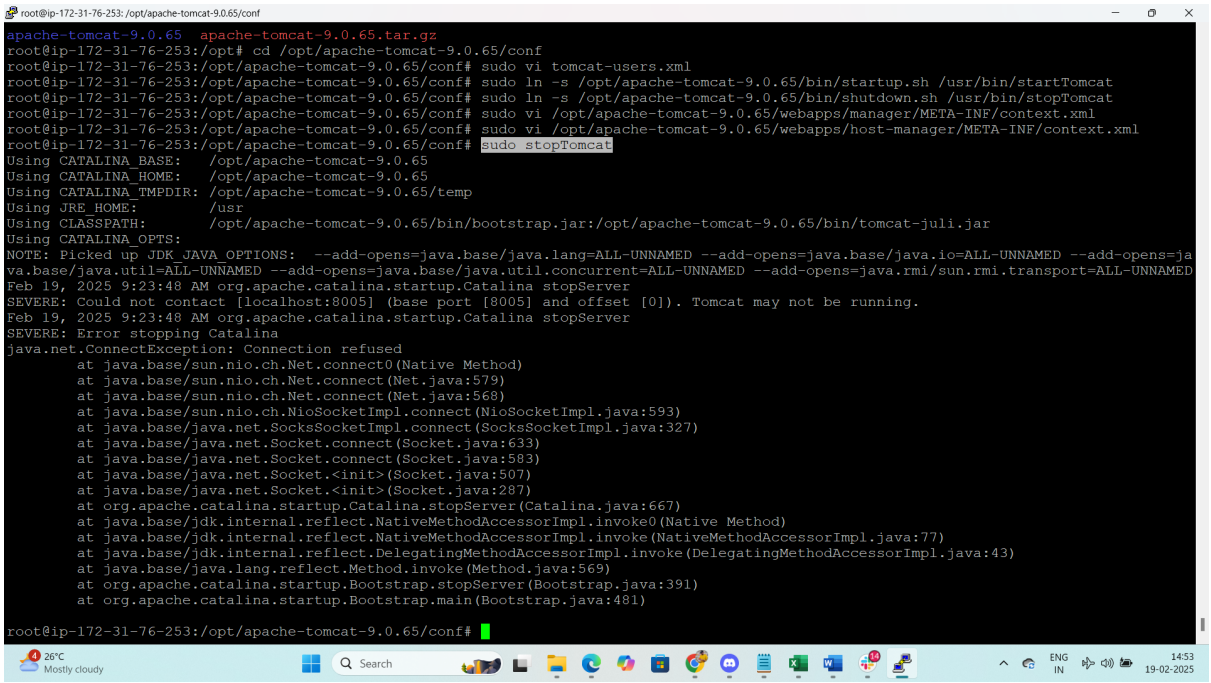
Comment

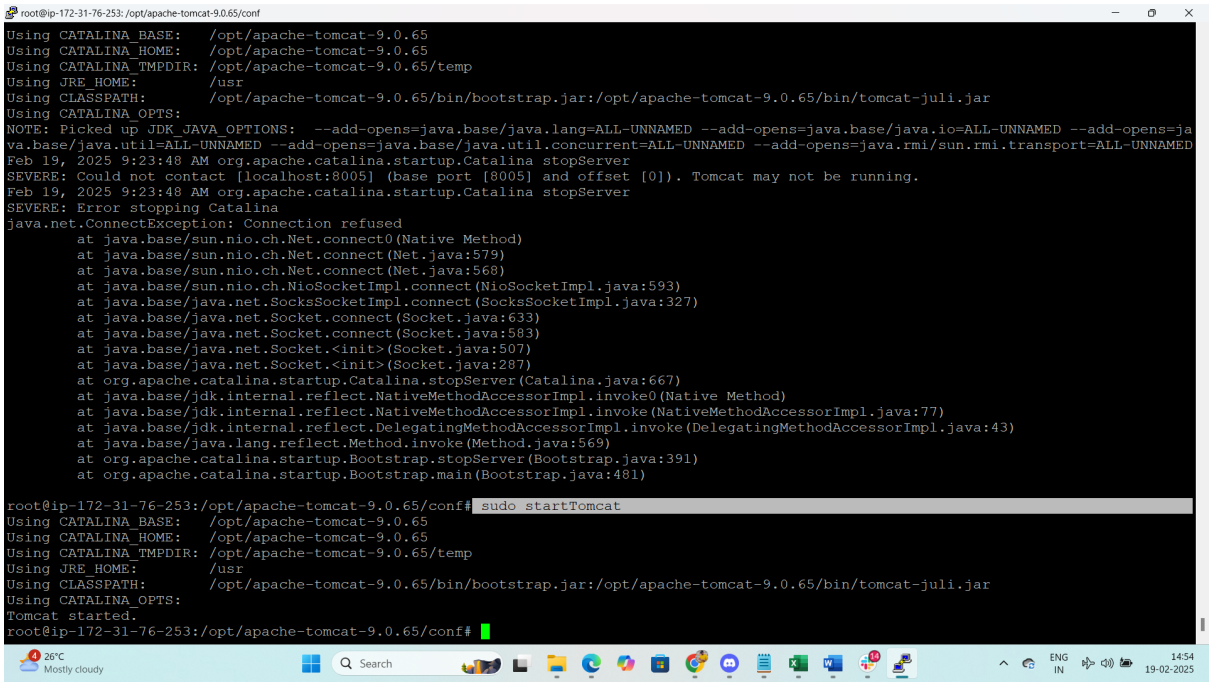



root@ip-172-31-76-253: /opt/apache-tomcat-9.0.65/conf
<?xml version="1.0" encoding="UTF-8"?>
<!--
Licensed to the Apache Software Foundation (ASF) under one or more
contributor license agreements. See the NOTICE file distributed with
this work for additional information regarding copyright ownership.
The ASF licenses this file to You under the Apache License, Version 2.0
(the "License"); you may not use this file except in compliance with
the License. You may obtain a copy of the License at
http://www.apache.org/licenses/LICENSE-2.0
Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->
<Context antiResourceLocking="false" privileged="true" >
<CookieProcessor className="org.apache.tomcat.util.http.Rfc6265CookieProcessor"
sameSiteCookies="strict" />
<!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" /> -->
<Manager sessionAttributeValueClassNameFilter="java\.lang\.(?:Boolean|Integer|Long|Number|String)|org\.apache\.catalina\.filters\.CsrfPreventionFilter\$LruCache(?:\$1)?|java\.util\.(?:Linked)?HashMap"/>
</Context>
:wq
26°C
Mostly cloudy
Search
ENG
IN
14:52
19-02-2025

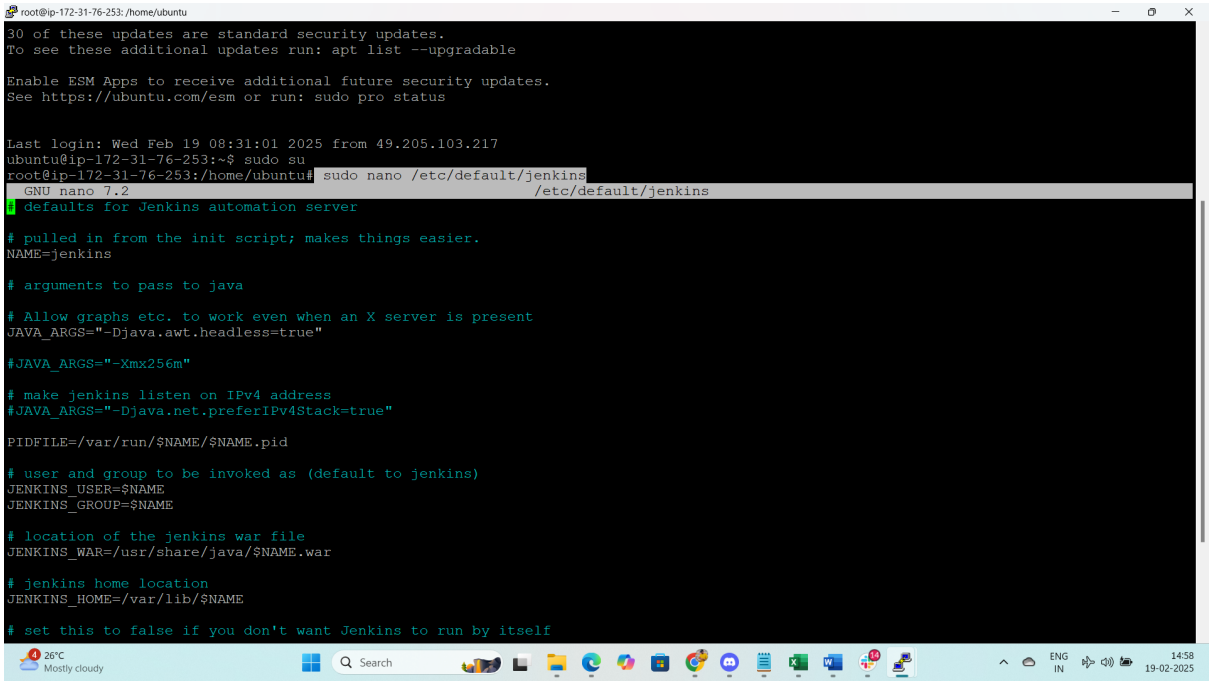

root@ip-172-31-76-253: /opt/apache-tomcat-9.0.65/conf
<?xml version="1.0" encoding="UTF-8"?>
<!--
Licensed to the Apache Software Foundation (ASF) under one or more
contributor license agreements. See the NOTICE file distributed with
this work for additional information regarding copyright ownership.
The ASF licenses this file to You under the Apache License, Version 2.0
(the "License"); you may not use this file except in compliance with
the License. You may obtain a copy of the License at
http://www.apache.org/licenses/LICENSE-2.0
Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->
<Context antiResourceLocking="false" privileged="true" >
<CookieProcessor className="org.apache.tomcat.util.http.Rfc6265CookieProcessor"
sameSiteCookies="strict" />
<!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" /> -->
<Manager sessionAttributeValueClassNameFilter="java\.lang\.(?:Boolean|Integer|Long|Number|String)|org\.apache\.catalina\.filters\.CsrfPreventionFilter\$LruCache(?:\$1)?|java\.util\.(?:Linked)?HashMap"/>
</Context>
-- INSERT --
22,56
All
26°C
Mostly cloudy
Search
ENG
IN
14:53
19-02-2025

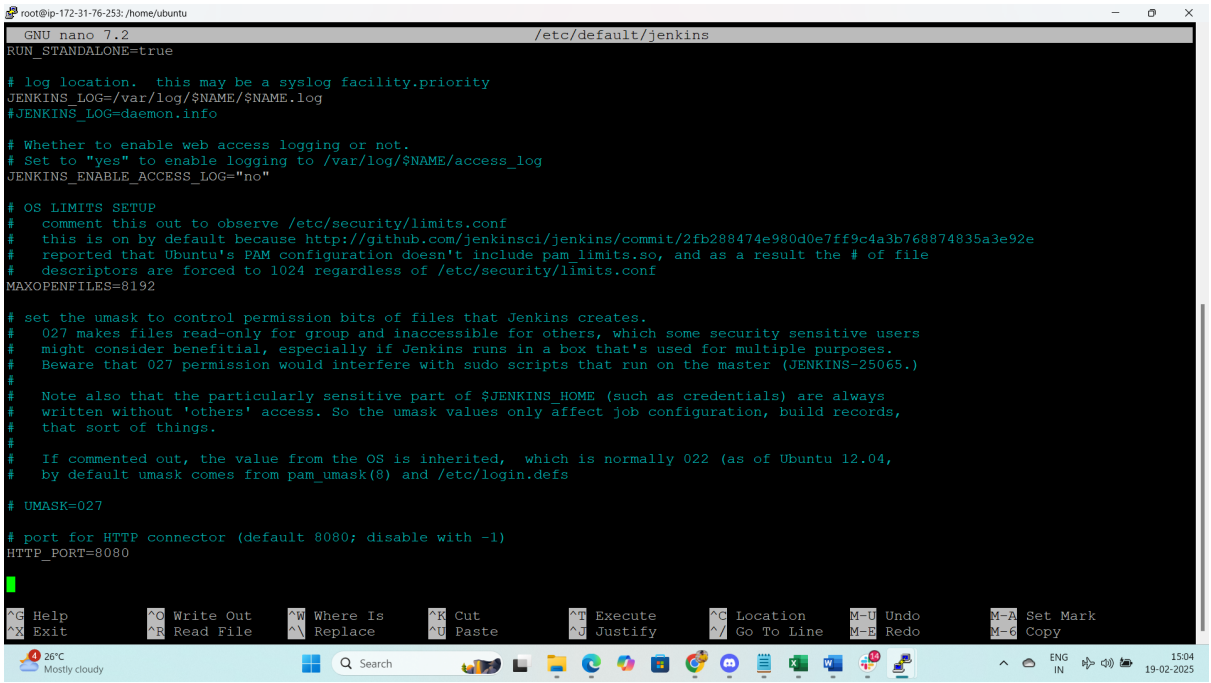

root@ip-172-31-76-253: /opt/apache-tomcat-9.0.65/conf
<?xml version="1.0" encoding="UTF-8"?>
<!--
Licensed to the Apache Software Foundation (ASF) under one or more
contributor license agreements. See the NOTICE file distributed with
this work for additional information regarding copyright ownership.
The ASF licenses this file to You under the Apache License, Version 2.0
(the "License"); you may not use this file except in compliance with
the License. You may obtain a copy of the License at
http://www.apache.org/licenses/LICENSE-2.0
Unless required by applicable law or agreed to in writing, software
distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
See the License for the specific language governing permissions and
limitations under the License.
-->
<Context antiResourceLocking="false" privileged="true" >
<CookieProcessor className="org.apache.tomcat.util.http.Rfc6265CookieProcessor"
sameSiteCookies="strict" />
<!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"
allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" /> -->
<Manager sessionAttributeValueClassNameFilter="java\.lang\.(?:Boolean|Integer|Long|Number|String)|org\.apache\.catalina\.filters\.CsrfPreventionFilter\$LruCache(?:\$1)?|java\.util\.(?:Linked)?HashMap"/>
</Context>
:wq
26°C
Mostly cloudy
Search
ENG
IN
14:53
19-02-2025

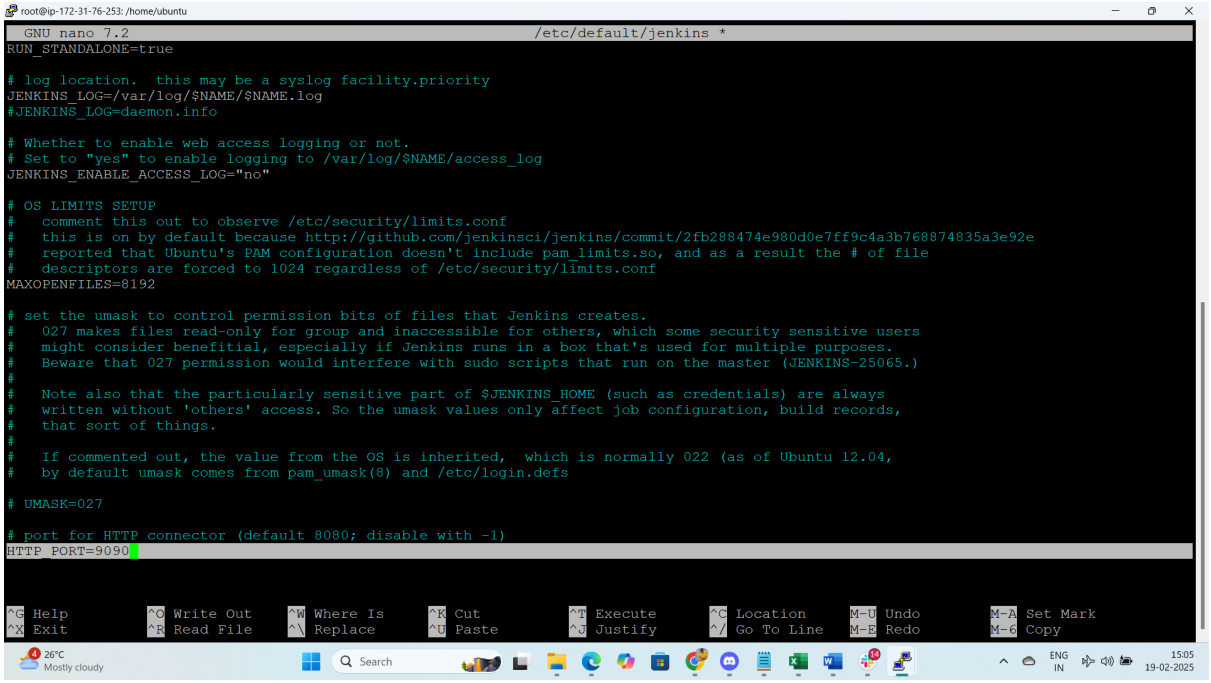

root@ip-172-31-76-253: /opt/apache-tomcat-9.0.65/conf
apache-tomcat-9.0.65 apache-tomcat-9.0.65.tar.gz
root@ip-172-31-76-253:/opt# cd /opt/apache-tomcat-9.0.65/conf
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf# sudo vi tomcat-users.xml
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf# sudo ln -s /opt/apache-tomcat-9.0.65/bin/startup.sh /usr/bin/startTomcat
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf# sudo ln -s /opt/apache-tomcat-9.0.65/bin/shutdown.sh /usr/bin/stopTomcat
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf# sudo vi /opt/apache-tomcat-9.0.65/webapps/manager/META-INF/context.xml
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf# sudo vi /opt/apache-tomcat-9.0.65/webapps/host-manager/META-INF/context.xml
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf# sudo stopTomcat
Using CATALINA_BASE: /opt/apache-tomcat-9.0.65
Using CATALINA_HOME: /opt/apache-tomcat-9.0.65
Using CATALINA_TMPDIR: /opt/apache-tomcat-9.0.65/temp
Using JRE_HOME: /usr
Using CLASSPATH: /opt/apache-tomcat-9.0.65/bin/bootstrap.jar:/opt/apache-tomcat-9.0.65/bin/tomcat-juli.jar
Using CATALINA_OPTS:
NOTE: Picked up JDK_JAVA_OPTIONS: --add-opens=java.base/java.lang=ALL-UNNAMED --add-opens=java.base/java.io=ALL-UNNAMED --add-opens=java.base/java.util=ALL-UNNAMED --add-opens=java.base/java.util.concurrent=ALL-UNNAMED --add-opens=java.rmi/sun.rmi.transport=ALL-UNNAMED
Feb 19, 2025 9:23:48 AM org.apache.catalina.startup.Catalina stopServer
SEVERE: Could not contact [localhost:8005] (base port [8005] and offset [0]). Tomcat may not be running.
Feb 19, 2025 9:23:48 AM org.apache.catalina.startup.Catalina stopServer
SEVERE: Error stopping Catalina
java.net.ConnectException: Connection refused
at java.base/sun.nio.ch.Net.connect0(Native Method)
at java.base/sun.nio.ch.Net.connect(Net.java:579)
at java.base/sun.nio.ch.Net.connect(Net.java:568)
at java.base/sun.nio.ch.NioSocketImpl.connect(NioSocketImpl.java:593)
at java.base/java.net.SocksSocketImpl.connect(SocksSocketImpl.java:327)
at java.base/java.net.Socket.connect(Socket.java:633)
at java.base/java.net.Socket.connect(Socket.java:583)
at java.base/java.net.Socket.<init>(Socket.java:507)
at java.base/java.net.Socket.<init>(Socket.java:287)
at org.apache.catalina.startup.Catalina.stopServer(Catalina.java:667)
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:77)
at java.base/jdk.internal.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
at java.base/java.lang.reflect.Method.invoke(Method.java:569)
at org.apache.catalina.startup.Bootstrap.stopServer(Bootstrap.java:391)
at org.apache.catalina.startup.Bootstrap.main(Bootstrap.java:481)
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf#
26°C
Mostly cloudy
Search
ENG
IN
14:53
19-02-2025

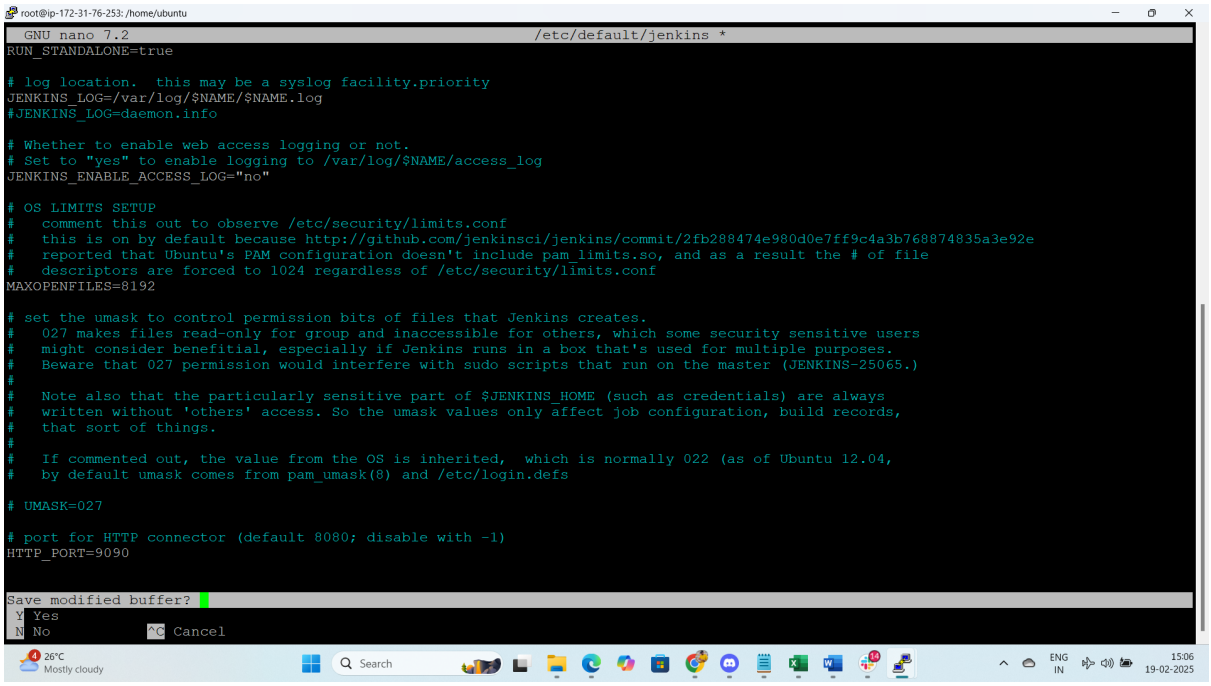


On general tomcat install on 8080, but we have jenkins running on 8080.




root@ip-172-31-76-253: /home/ubuntu
GNU nano 7.2 /etc/default/jenkins
RUN_STANDALONE=true
# log location. this may be a syslog facility.priority
JENKINS_LOG=/var/log/$NAME/$NAME.log
#JENKINS_LOG=daemon.info
# Whether to enable web access logging or not.
# Set to "yes" to enable logging to /var/log/$NAME/access_log
JENKINS_ENABLE_ACCESS_LOG="no"
# OS LIMITS SETUP
# comment this out to observe /etc/security/limits.conf
# this is on by default because http://github.com/jenkinsci/jenkins/commit/2fb288474e980d0e7ff9c4a3b768874835a3e92e
# reported that Ubuntu's PAM configuration doesn't include pam_limits.so, and as a result the # of file
# descriptors are forced to 1024 regardless of /etc/security/limits.conf
MAXOPENFILES=8192
# set the umask to control permission bits of files that Jenkins creates.
# 027 makes files read-only for group and inaccessible for others, which some security sensitive users
# might consider benefitial, especially if Jenkins runs in a box that's used for multiple purposes.
# Beware that 027 permission would interfere with sudo scripts that run on the master (JENKINS-25065.)
#
Note also that the particularly sensitive part of $JENKINS_HOME (such as credentials) are always
written without 'others' access. So the umask values only affect job configuration, build records,
that sort of things.
#
# If commented out, the value from the OS is inherited, which is normally 022 (as of Ubuntu 12.04,
# by default umask comes from pam_umask(8) and /etc/login.defs
# UMASK=027
# port for HTTP connector (default 8080; disable with -1)
HTTP_PORT=8080
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy
26°C Mostly cloudy
Search
ENG IN
15:04 19-02-2025


root@ip-172-31-76-253: /home/ubuntu
GNU nano 7.2 /etc/default/jenkins *
RUN_STANDALONE=true
# log location. this may be a syslog facility.priority
JENKINS_LOG=/var/log/$NAME/$NAME.log
#JENKINS_LOG=daemon.info
# Whether to enable web access logging or not.
# Set to "yes" to enable logging to /var/log/$NAME/access_log
JENKINS_ENABLE_ACCESS_LOG="no"
# OS LIMITS SETUP
# comment this out to observe /etc/security/limits.conf
# this is on by default because http://github.com/jenkinsci/jenkins/commit/2fb288474e980d0e7ff9c4a3b768874835a3e92e
# reported that Ubuntu's PAM configuration doesn't include pam_limits.so, and as a result the # of file
# descriptors are forced to 1024 regardless of /etc/security/limits.conf
MAXOPENFILES=8192
# set the umask to control permission bits of files that Jenkins creates.
# 027 makes files read-only for group and inaccessible for others, which some security sensitive users
# might consider benefitial, especially if Jenkins runs in a box that's used for multiple purposes.
# Beware that 027 permission would interfere with sudo scripts that run on the master (JENKINS-25065.)
#
Note also that the particularly sensitive part of $JENKINS_HOME (such as credentials) are always
written without 'others' access. So the umask values only affect job configuration, build records,
that sort of things.
#
# If commented out, the value from the OS is inherited, which is normally 022 (as of Ubuntu 12.04,
# by default umask comes from pam_umask(8) and /etc/login.defs
# UMASK=027
# port for HTTP connector (default 8080; disable with -1)
HTTP_PORT=9090
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy
26°C Mostly cloudy
Search
ENG IN
15:05 19-02-2025



Option 1: Update `JENKINS_PORT` in `/etc/default/jenkins` (Ubuntu/Debian)

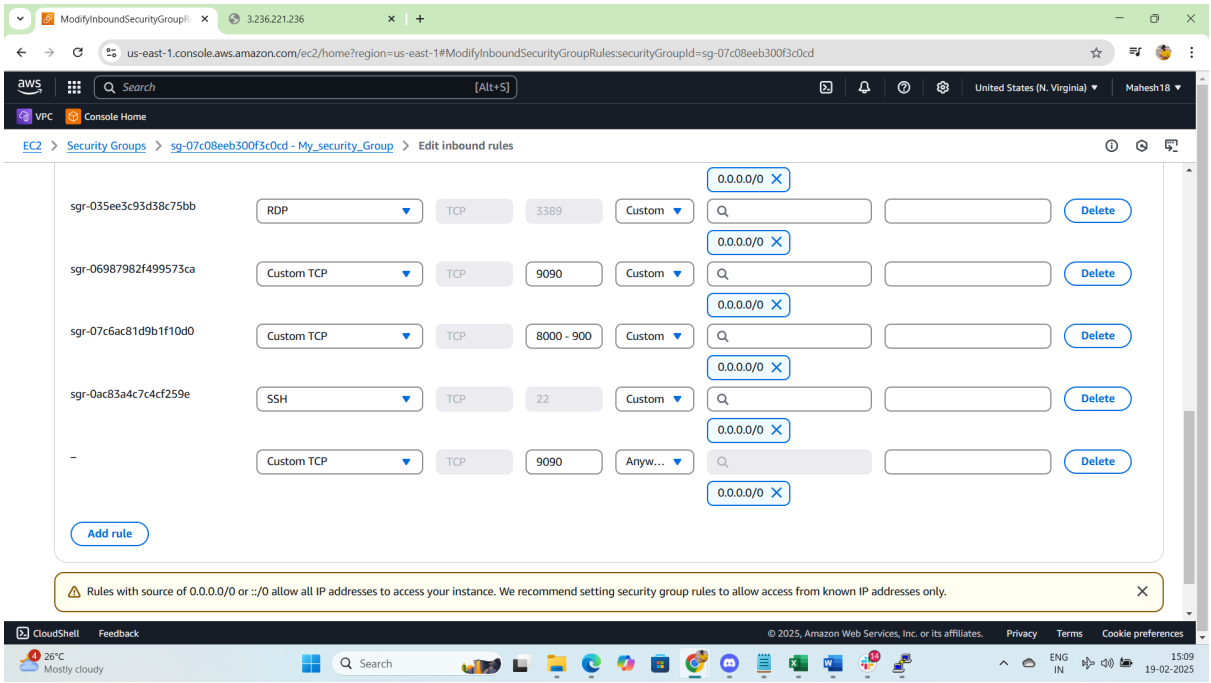
Look for this line:

```ini
HTTP_PORT=8080
```

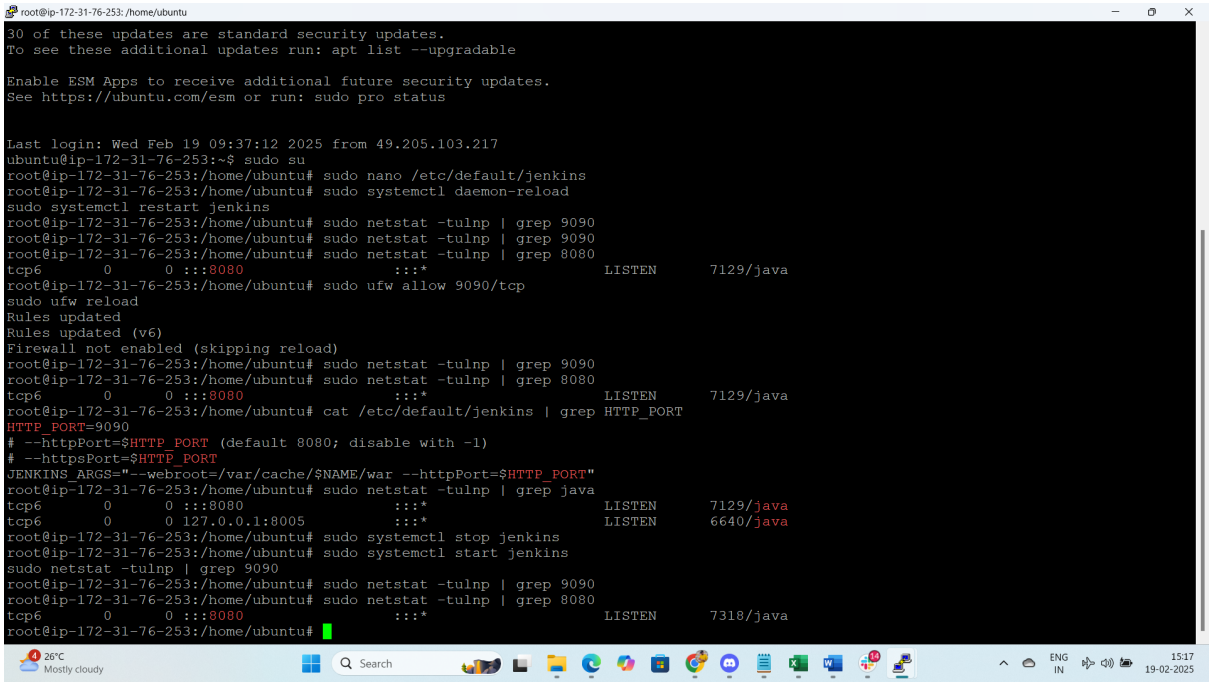
Change it to a new port, e.g., **9090**:

```ini
HTTP_PORT=9090
```

Save the file (`CTRL+X`, then `Y`, then `Enter`).



```
Last login: Wed Feb 19 09:37:12 2025 from 49.205.103.217
ubuntu@ip-172-31-76-253:~$ sudo su
root@ip-172-31-76-253:/home/ubuntu# sudo nano /etc/default/jenkins
root@ip-172-31-76-253:/home/ubuntu# sudo systemctl daemon-reload
sudo systemctl restart jenkins
```



Still jenkins running on 8080

🔹 Step 3: Verify the Systemd Service File

If Jenkins is **still on 8080**, it means the systemd service file is overriding it.

1 **Open the systemd service file:**

sh Copy Edit

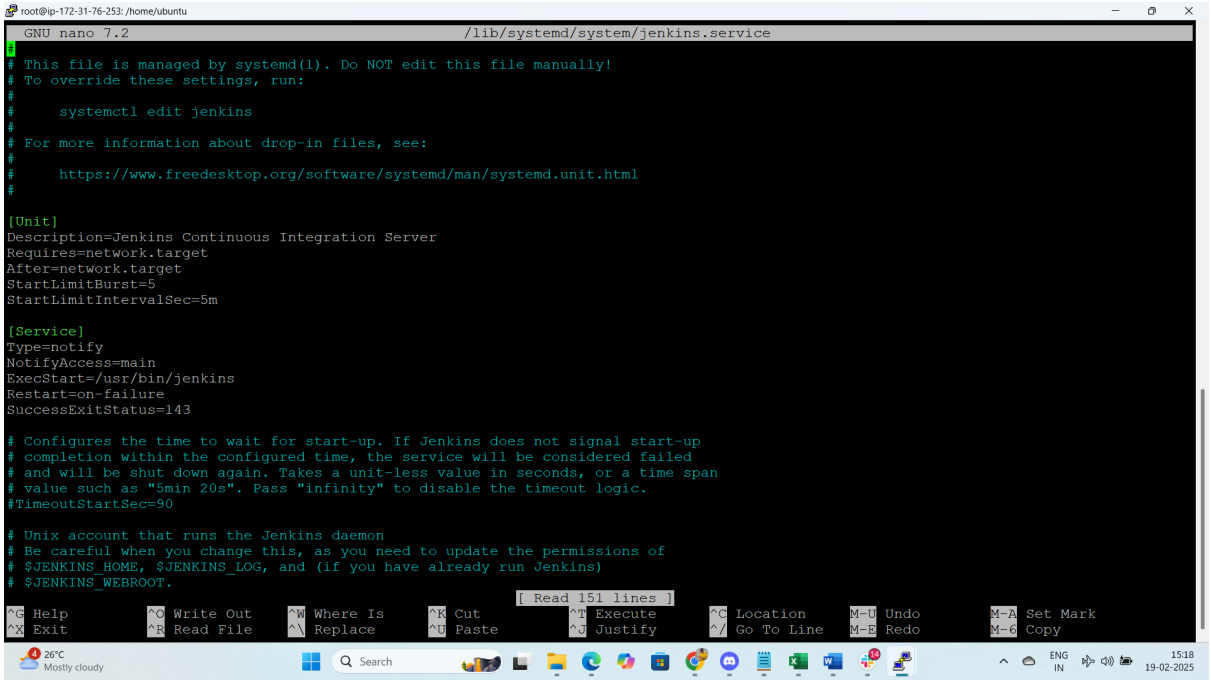
```
sudo nano /lib/systemd/system/jenkins.service
```

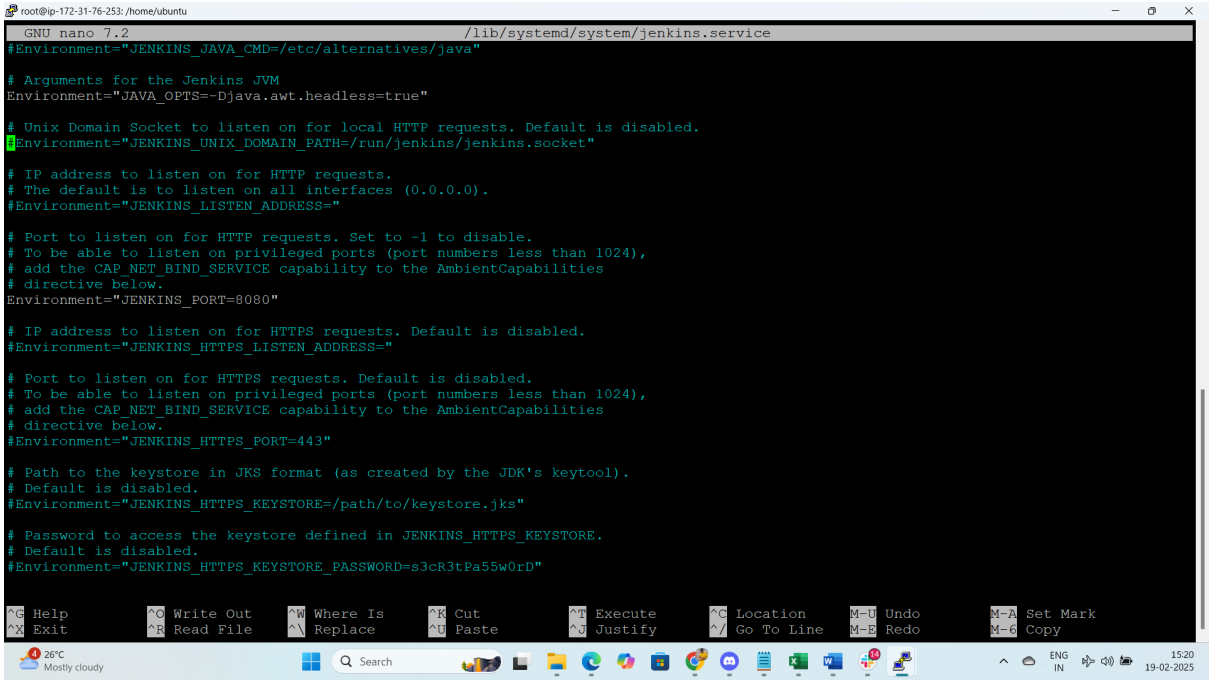
2 **Find the `ExecStart` line** (it should look like this):

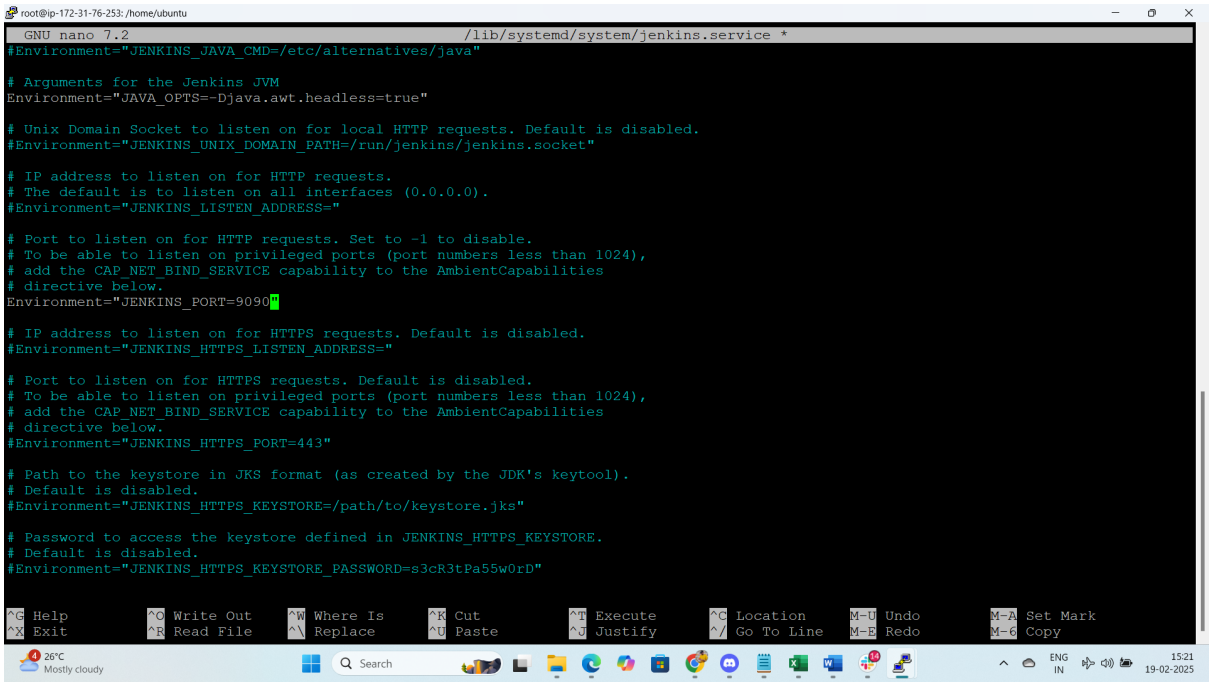
swift Copy Edit

```
ExecStart=/usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --httpPort=8080
```

Message ChatGPT


root@ip-172-31-76-253: /home/ubuntu
GNU nano 7.2 /lib/systemd/system/jenkins.service
This file is managed by systemd(1). Do NOT edit this file manually!
To override these settings, run:
systemctl edit jenkins
For more information about drop-in files, see:
https://www.freedesktop.org/software/systemd/man/systemd.unit.html
[Unit]
Description=Jenkins Continuous Integration Server
Requires=network.target
After=network.target
StartLimitBurst=5
StartLimitIntervalSec=5m
[Service]
Type=notify
NotifyAccess=main
ExecStart=/usr/bin/jenkins
Restart=on-failure
SuccessExitStatus=143
# Configures the time to wait for start-up. If Jenkins does not signal start-up
# completion within the configured time, the service will be considered failed
# and will be shut down again. Takes a unit-less value in seconds, or a time span
# value such as "5min 20s". Pass "infinity" to disable the timeout logic.
#TimeoutStartSec=90
Unix account that runs the Jenkins daemon
Be careful when you change this, as you need to update the permissions of
$JENKINS_HOME, $JENKINS_LOG, and (if you have already run Jenkins)
$JENKINS_WEBROOT.
[Read 151 lines]
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy
26°C Mostly cloudy
Search
ENG IN
15:18 19-02-2025

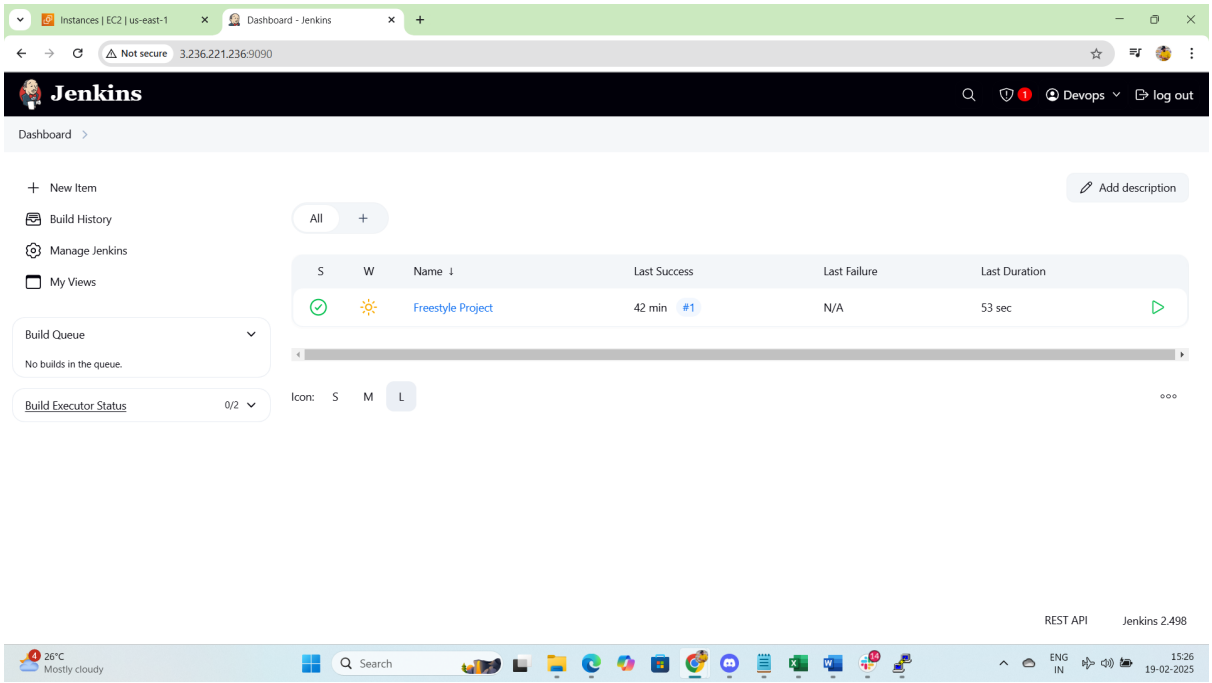

root@ip-172-31-76-253: /home/ubuntu
GNU nano 7.2 /lib/systemd/system/jenkins.service
#Environment="JENKINS_JAVA_CMD=/etc/alternatives/java"
# Arguments for the Jenkins JVM
Environment="JAVA_OPTS=-Djava.awt.headless=true"
# Unix Domain Socket to listen on for local HTTP requests. Default is disabled.
#Environment="JENKINS_UNIX_DOMAIN_PATH=/run/jenkins/jenkins.socket"
IP address to listen on for HTTP requests.
The default is to listen on all interfaces (0.0.0.0).
#Environment="JENKINS_LISTEN_ADDRESS="
# Port to listen on for HTTP requests. Set to -1 to disable.
# To be able to listen on privileged ports (port numbers less than 1024),
# add the CAP_NET_BIND_SERVICE capability to the AmbientCapabilities
# directive below.
Environment="JENKINS_PORT=8080"
# IP address to listen on for HTTPS requests. Default is disabled.
#Environment="JENKINS_HTTPS_LISTEN_ADDRESS="
Port to listen on for HTTPS requests. Default is disabled.
To be able to listen on privileged ports (port numbers less than 1024),
add the CAP_NET_BIND_SERVICE capability to the AmbientCapabilities
directive below.
#Environment="JENKINS_HTTPS_PORT=443"
Path to the keystore in JKS format (as created by the JDK's keytool).
Default is disabled.
#Environment="JENKINS_HTTPS_KEYSTORE=/path/to/keystore.jks"
Password to access the keystore defined in JENKINS_HTTPS_KEYSTORE.
Default is disabled.
#Environment="JENKINS_HTTPS_KEYSTORE_PASSWORD=s3cR3tPa55w0rD"
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy
26°C Mostly cloudy
Search
ENG IN
15:20 19-02-2025



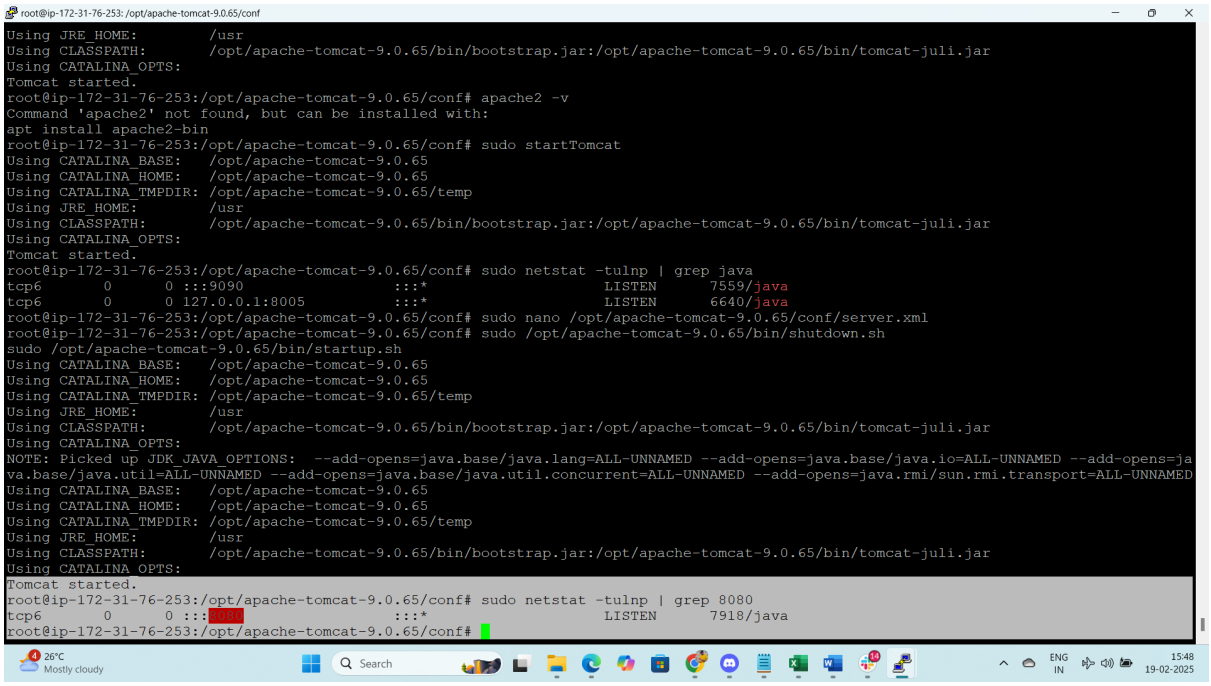
Cntrl+X y and enter.

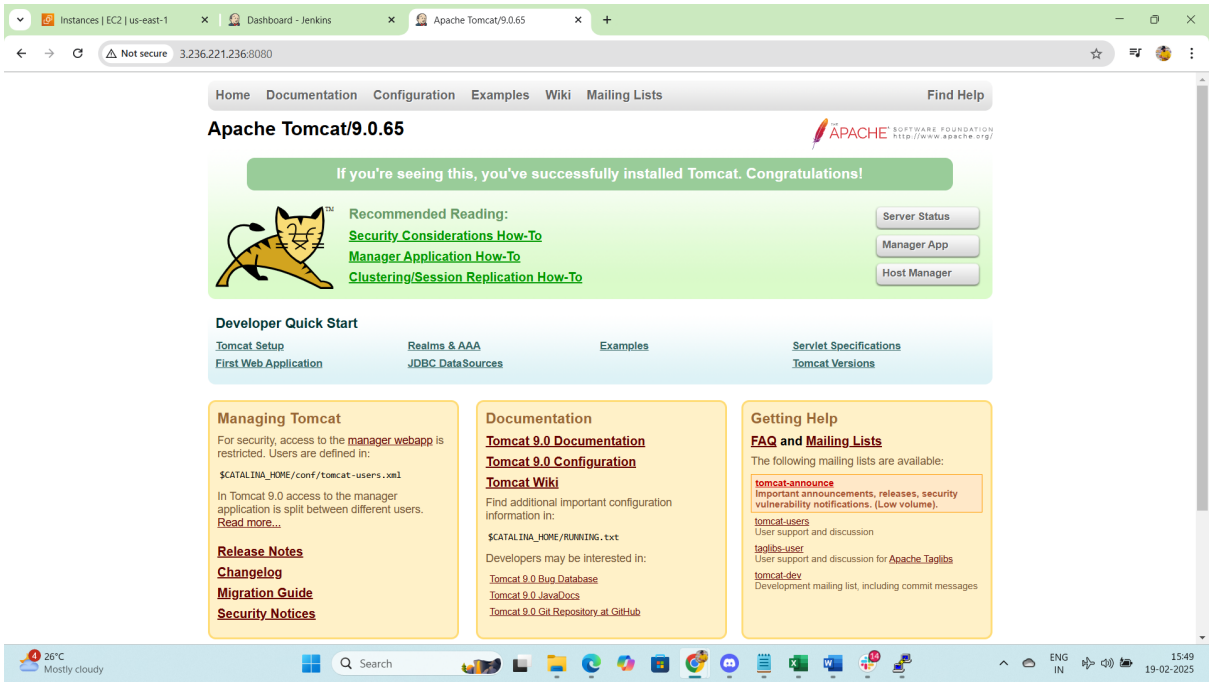
```
root@ip-172-31-76-253:/home/ubuntu# sudo netstat -tulnp | grep 9090
root@ip-172-31-76-253:/home/ubuntu# sudo netstat -tulnp | grep 8080
tcp6       0      0 :::8080                 :::*                    LISTEN      7318/java
root@ip-172-31-76-253:/home/ubuntu# sudo nano /lib/systemd/system/jenkins.service
root@ip-172-31-76-253:/home/ubuntu#  sudo systemctl stop jenkins
Warning: The unit file, source configuration file or drop-ins of jenkins.service changed on disk. Ru
ad units.
root@ip-172-31-76-253:/home/ubuntu# sudo systemctl daemon-reload
root@ip-172-31-76-253:/home/ubuntu# sudo systemctl daemon-reload
sudo systemctl restart jenkins
root@ip-172-31-76-253:/home/ubuntu# sudo netstat -tulnp | grep 9090
tcp6       0      0 :::9090                 :::*                    LISTEN      7559/java
root@ip-172-31-76-253:/home/ubuntu#
```

See in the above it listen to 8080 now it listen to 9090.



tomcat server port

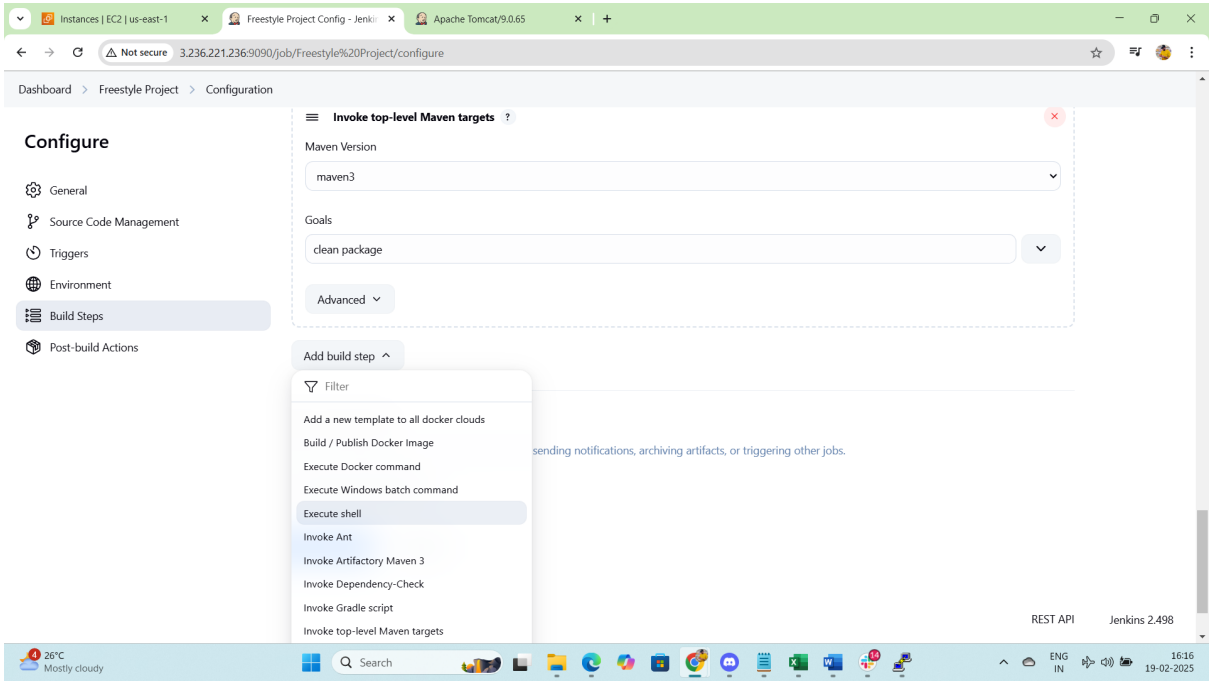




Now it is accessible.

How to send the .war file to /webapp in tomcat server.

-add a step in free style project.



sudo cp target/*.war /opt/apache-tomcat-9.0.65/webapps/

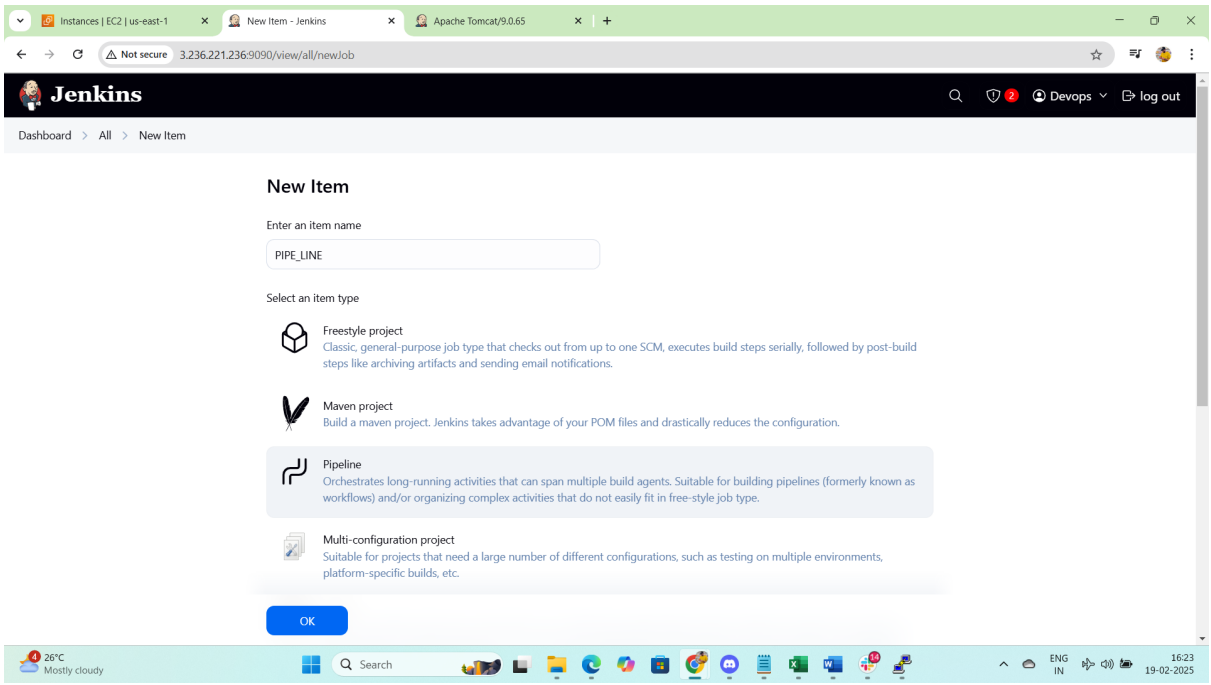
means we copy the .war file to target folder as shown and if we add the step we can access our application through tomcat server.

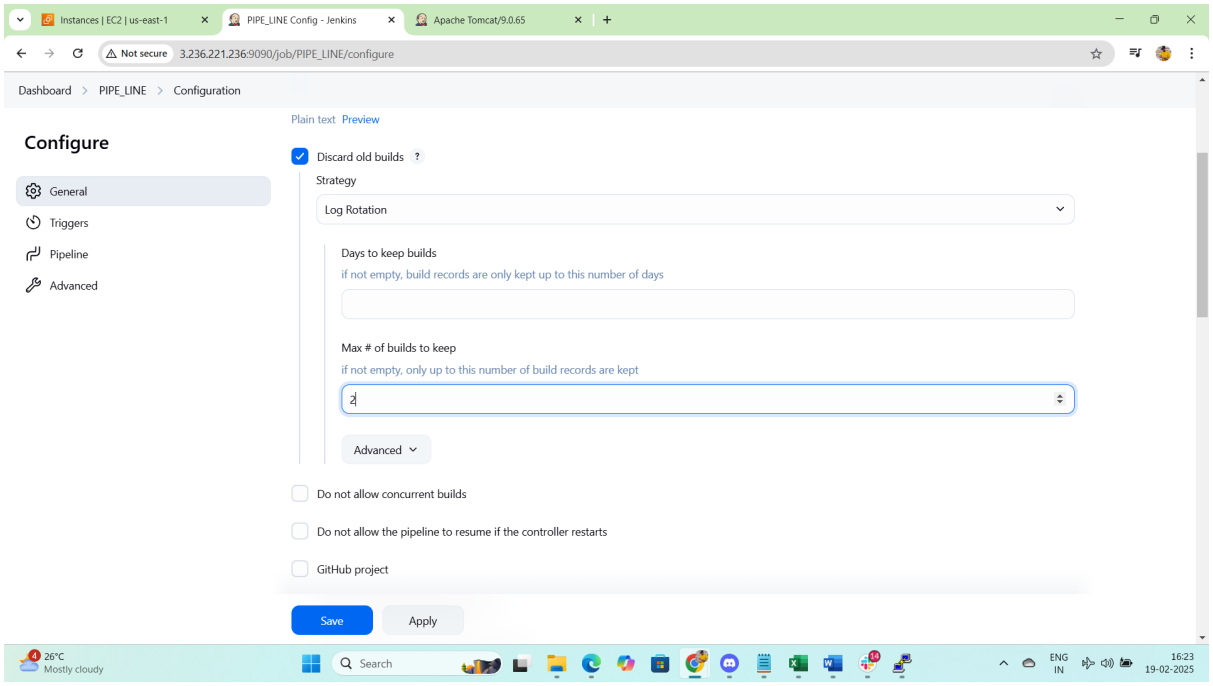
Now we see pipeline project

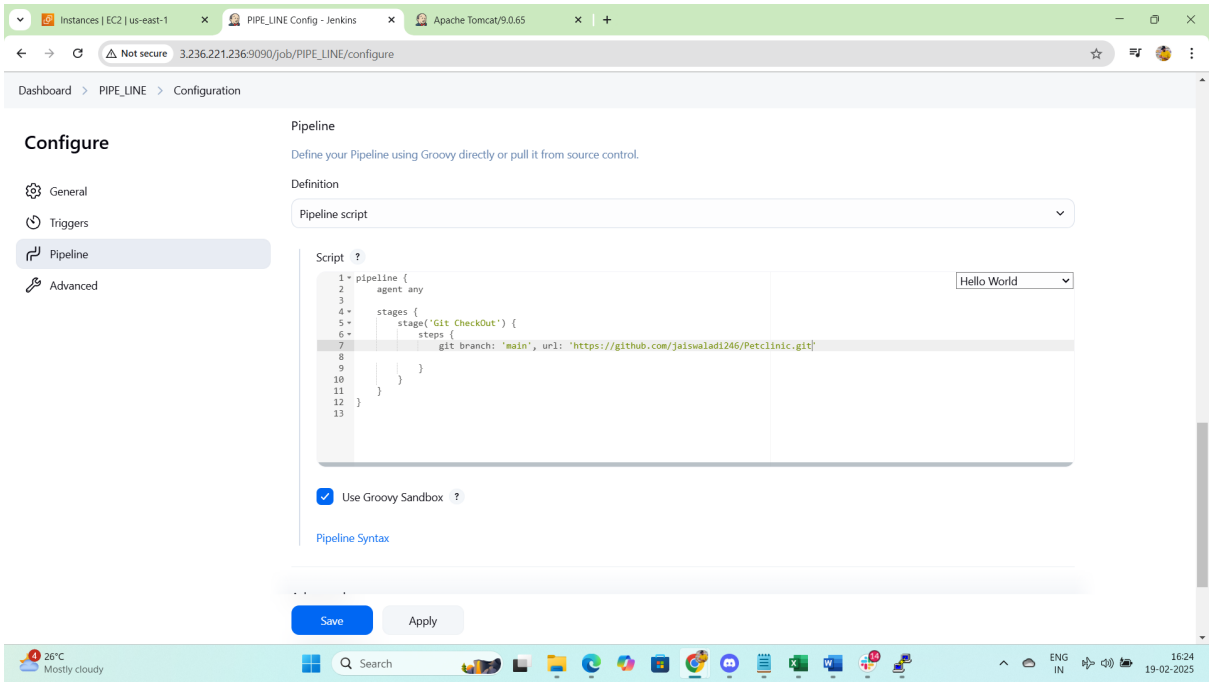
```
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf# sudo netstat -tulnp | grep 8080
tcp6       0      0 :::8080                 :::*                    LISTEN      7918/java
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65/conf# cd ..
root@ip-172-31-76-253:/opt/apache-tomcat-9.0.65# cd ..
root@ip-172-31-76-253:/opt# ls -lrt
total 11328
-rw-r--r-- 1 root root 11593900 Jul 14  2022 apache-tomcat-9.0.65.tar.gz
drwxr-xr-x 9 root root     4096 Feb 19 09:17 apache-tomcat-9.0.65
root@ip-172-31-76-253:/opt# chmod -R 757 apache-tomcat-9.0.65
root@ip-172-31-76-253:/opt# ls -lrt
total 11328
-rw-r--r-- 1 root root 11593900 Jul 14  2022 apache-tomcat-9.0.65.tar.gz
drwxr-xrwx 9 root root     4096 Feb 19 09:17 apache-tomcat-9.0.65
root@ip-172-31-76-253:/opt#
```

-first we gave permission to tomcat server to access to copy the file or els we get permission denied.

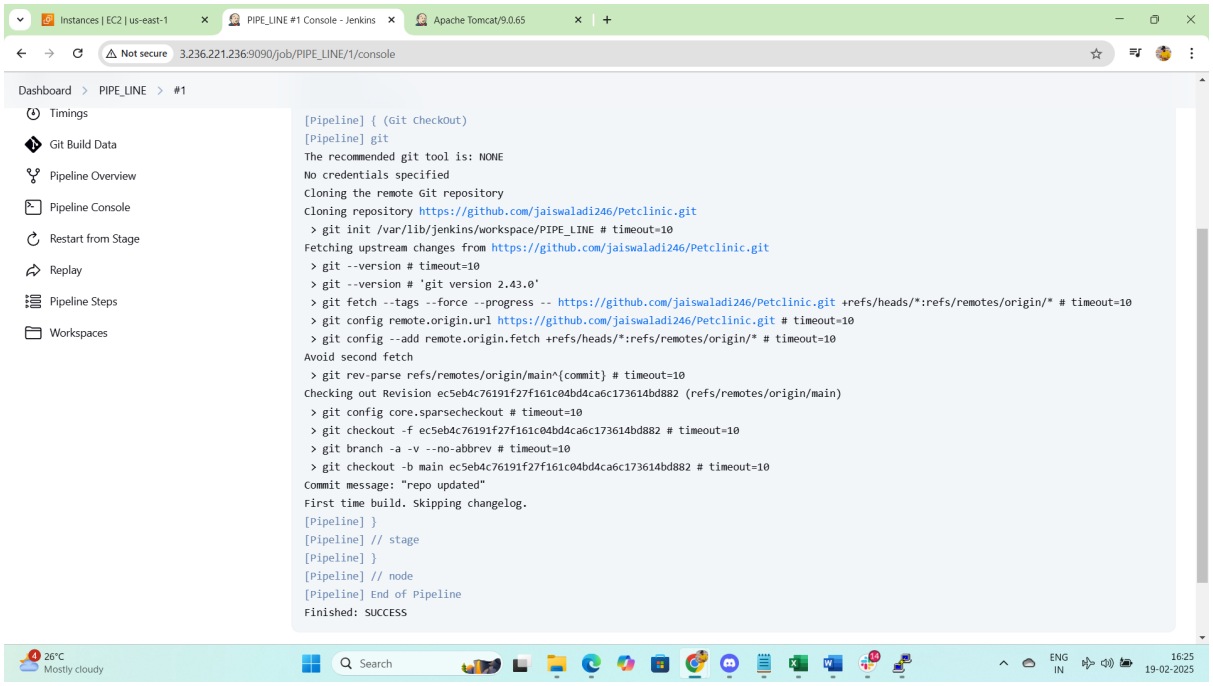
Now we write the jenkins file

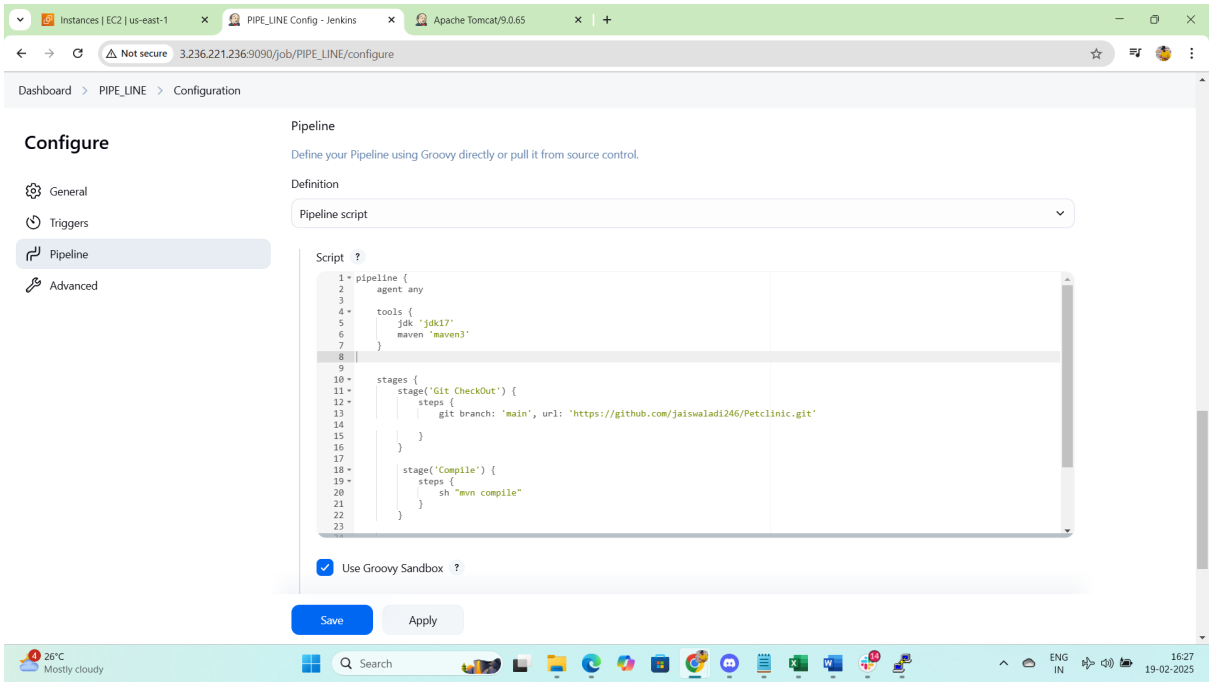



Instances | EC2 | us-east-1
PIPE_LINE Config - Jenkins
Apache Tomcat/9.0.65
Not secure
3.236.221.236:9090/job/PIPE_LINE/configure
Dashboard > PIPE_LINE > Configuration
Configure
General
Triggers
Pipeline
Advanced
Plain text Preview
Discard old builds
Strategy
Log Rotation
Days to keep builds
if not empty, build records are only kept up to this number of days
Max # of builds to keep
if not empty, only up to this number of build records are kept
2
Advanced
Do not allow concurrent builds
Do not allow the pipeline to resume if the controller restarts
GitHub project
Save
Apply
26°C
Mostly cloudy
Search
ENG
IN
16:23
19-02-2025

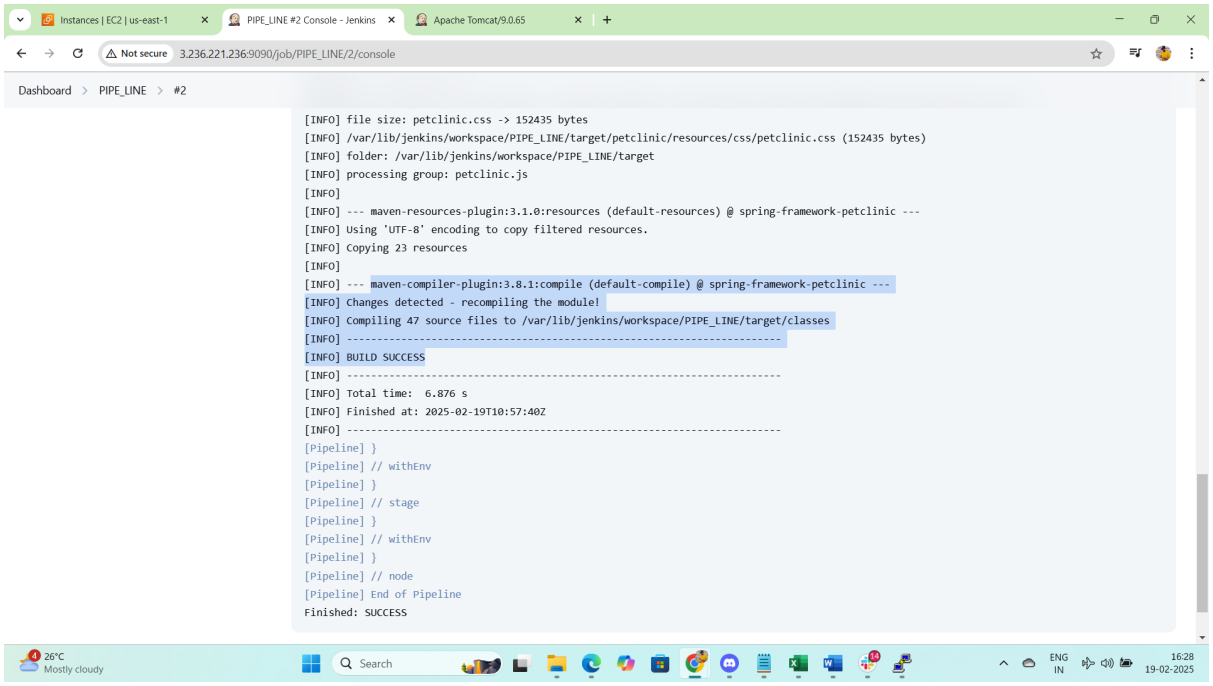

Instances | EC2 | us-east-1
PIPE_LINE Config - Jenkins
Apache Tomcat/9.0.65
Not secure
3.236.221.236:9090/job/PIPE_LINE/configure
Dashboard > PIPE_LINE > Configuration
Configure
General
Triggers
Pipeline
Advanced
Pipeline
Define your Pipeline using Groovy directly or pull it from source control.
Definition
Pipeline script
Script
Hello World
pipeline {
agent any
stages {
stage('Git CheckOut') {
steps {
git branch: 'main', url: 'https://github.com/jaiswaladi246/Petclinic.git'
}
}
}
}
Use Groovy Sandbox
Pipeline Syntax
Save
Apply
26°C
Mostly cloudy
Search
ENG
IN
16:24
19-02-2025

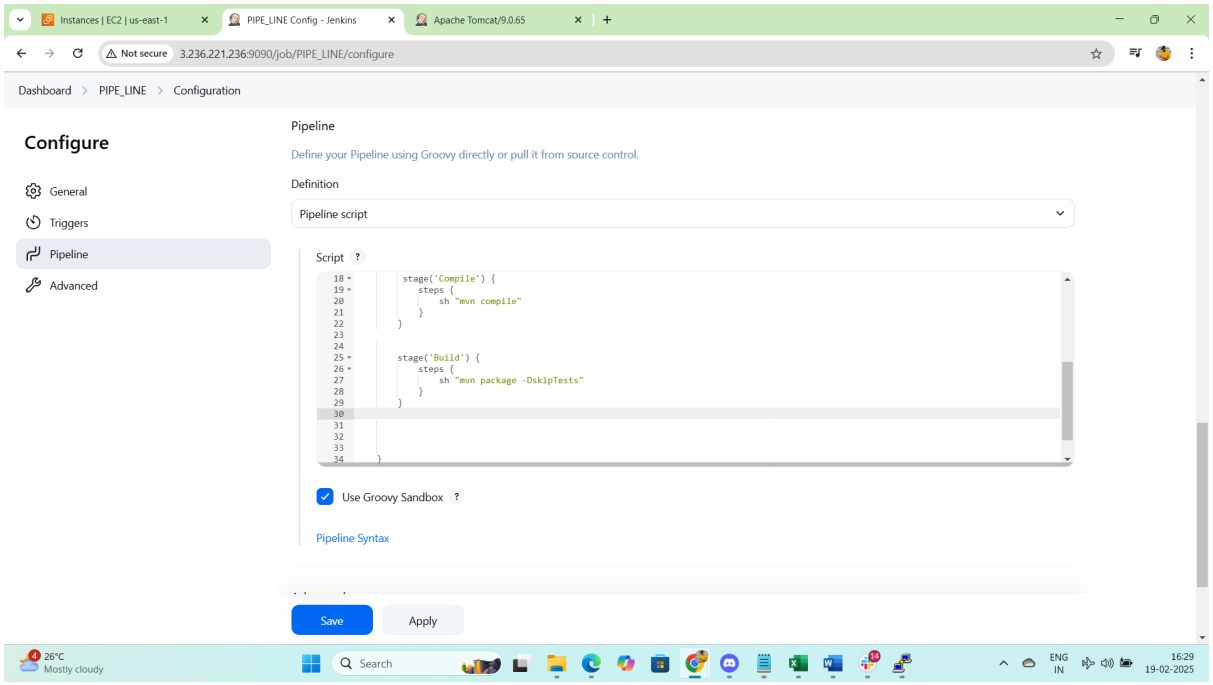
Lets run



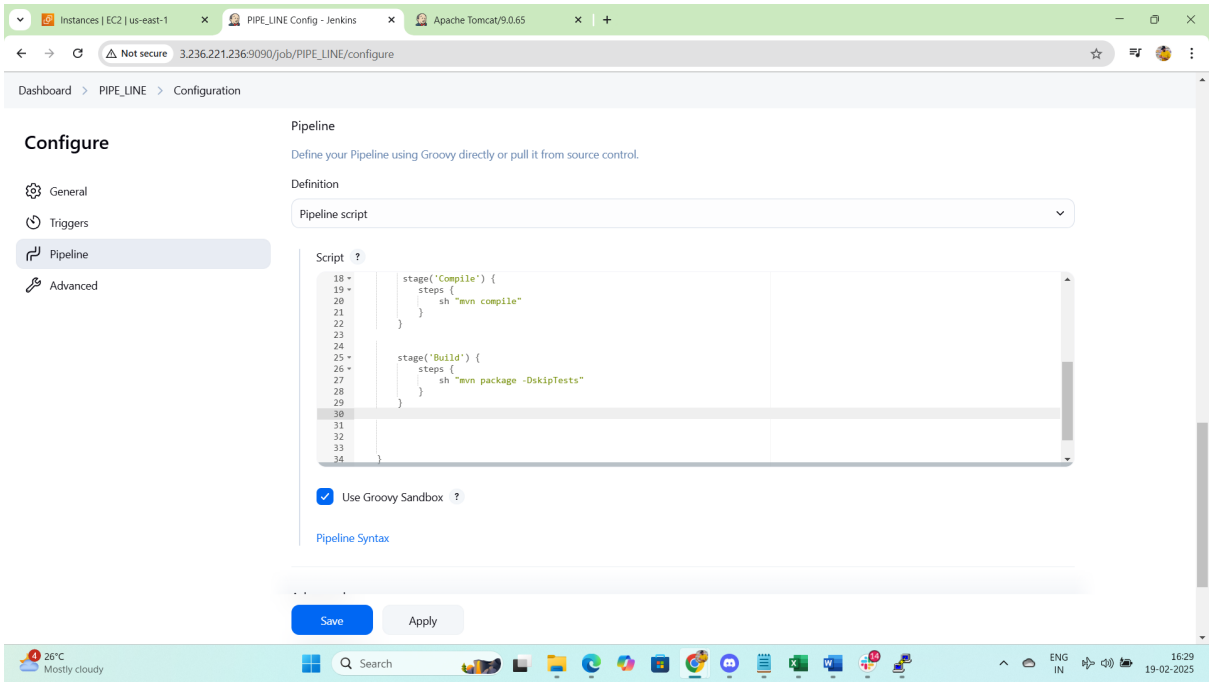


We add tools and maven compile, lets check.

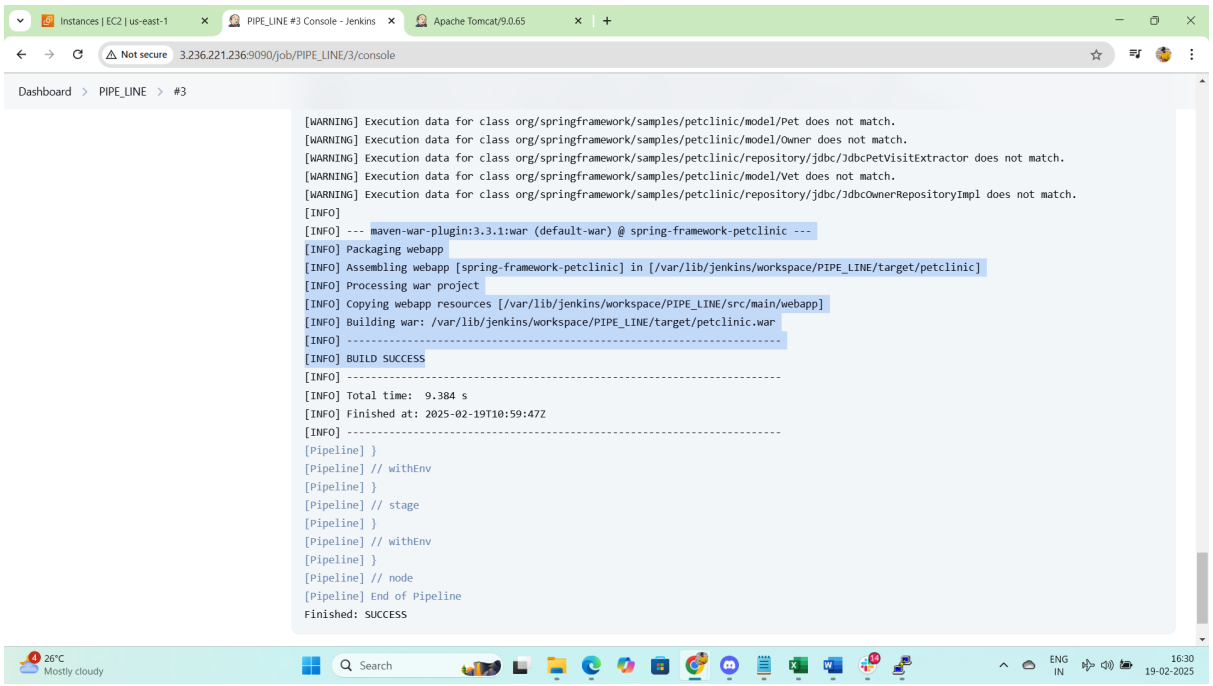




Added a build step

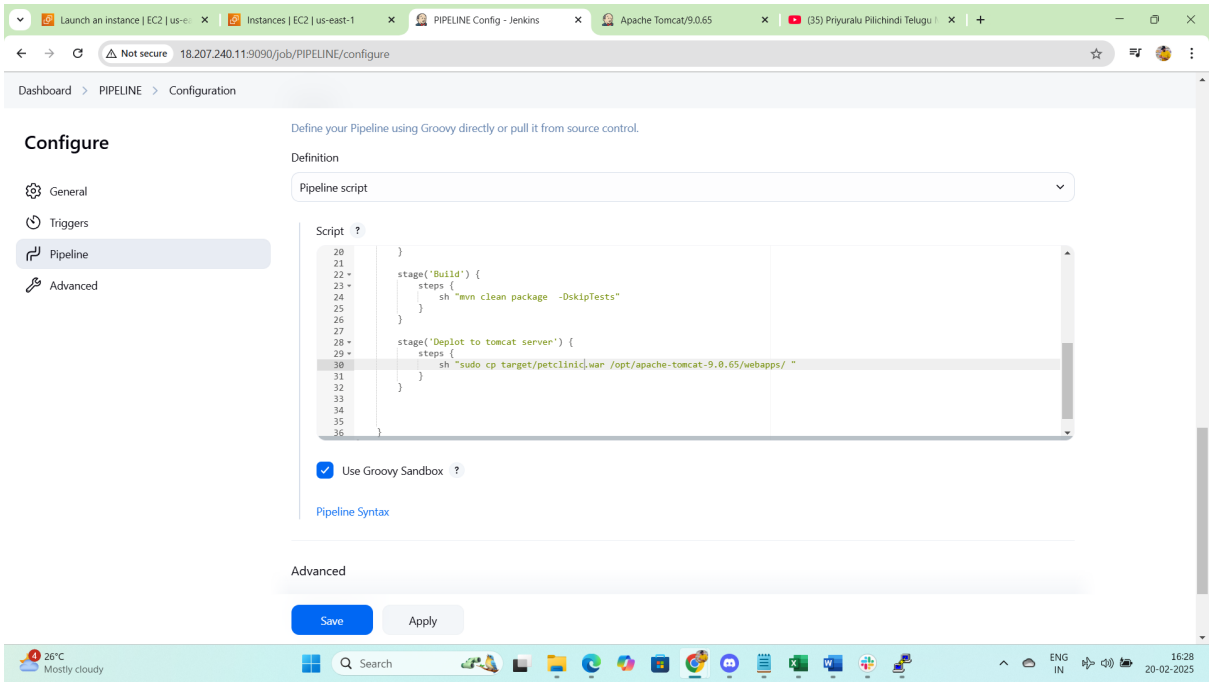


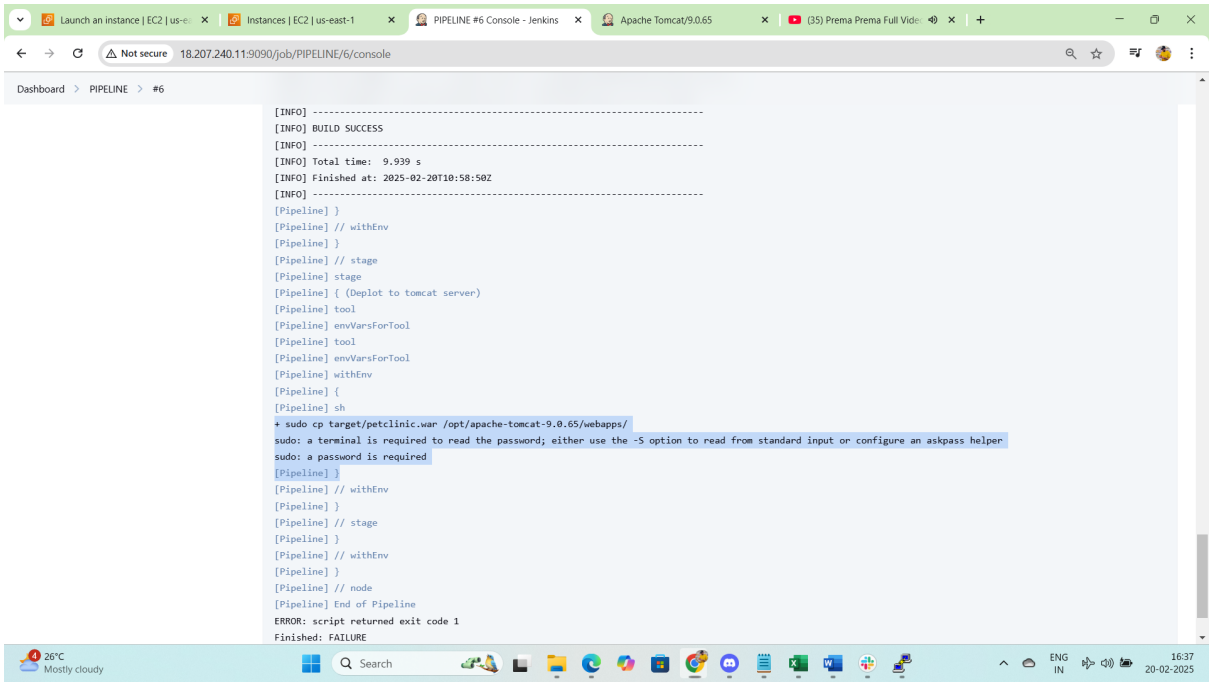
Lets see



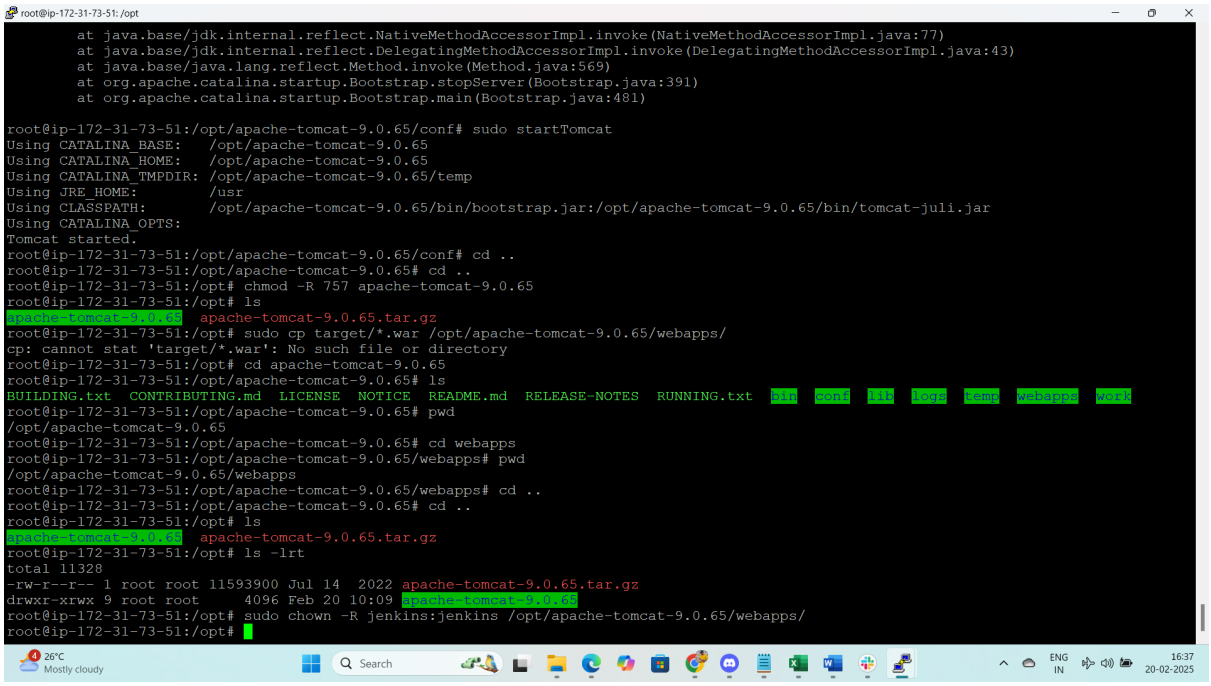
See it is also success.

Now we move .war file to tomcat server.





sudo chown -R jenkins:jenkins /opt/apache-tomcat-9.0.65/webapps/



Run again.

(Recommended)

Instead of using `sudo`, change the ownership of the `/opt/apache-tomcat-9.0.65/webapps/` directory to Jenkins.

Run this command **once** on your EC2 instance:

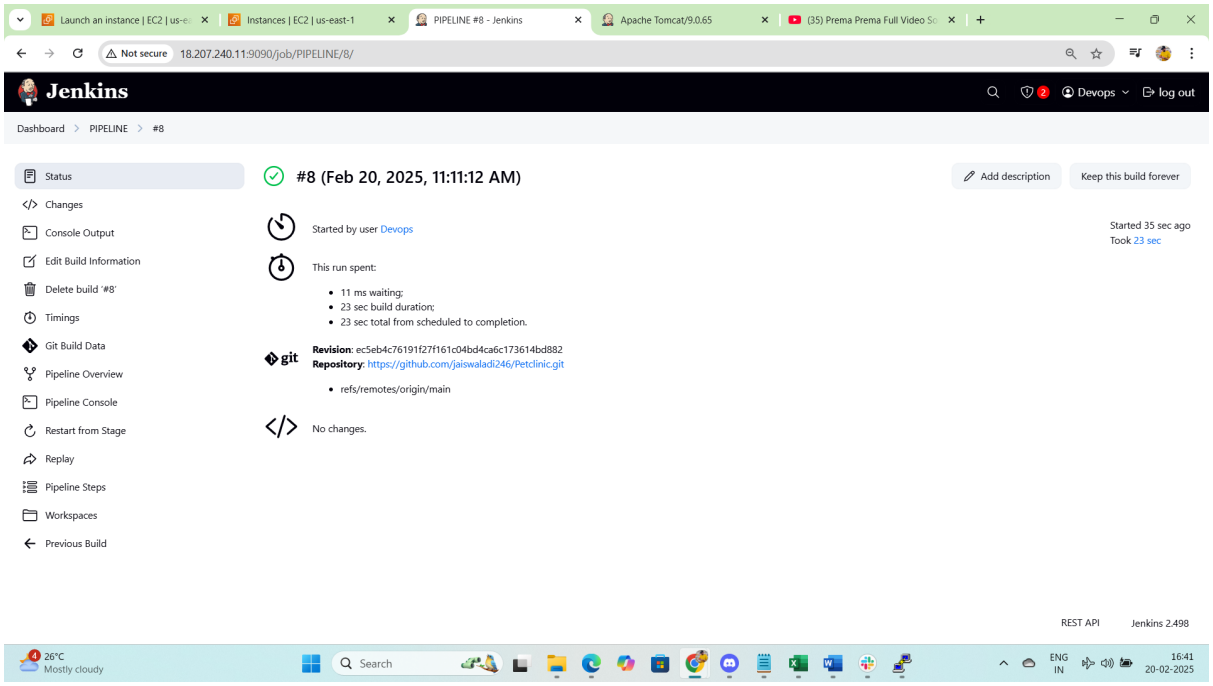
```sh
sudo chown -R jenkins:jenkins /opt/apache-tomcat-9.0.65/webapps/
```

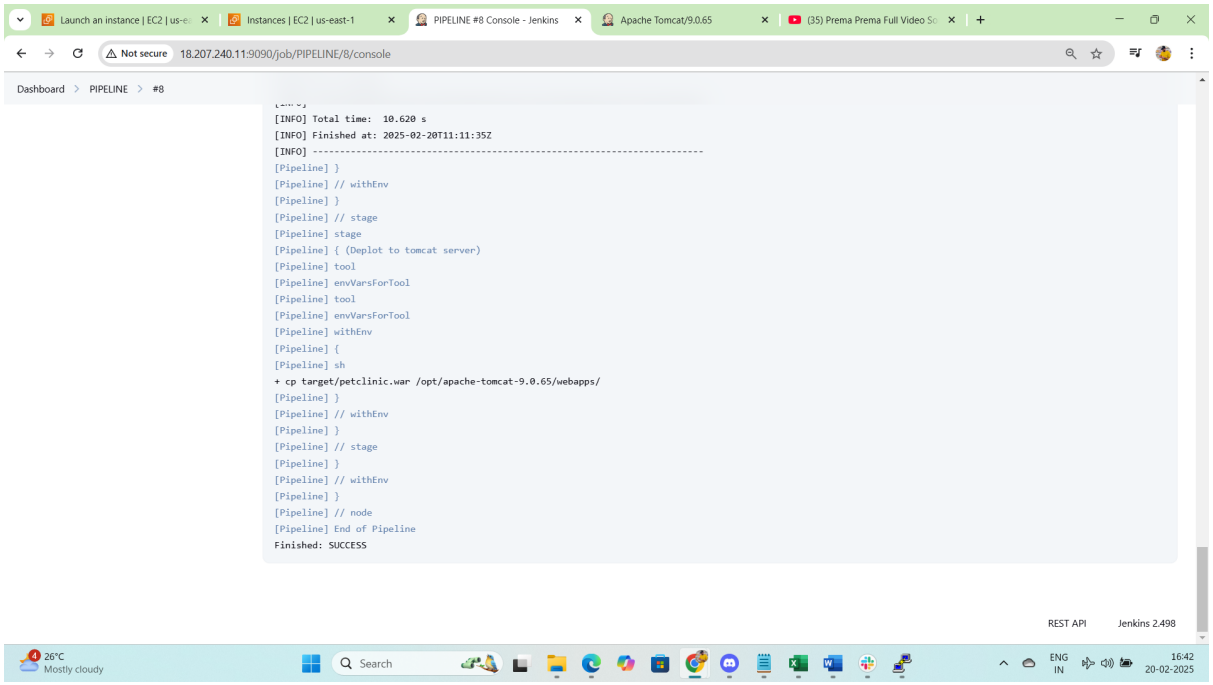
Then **update your pipeline** to:

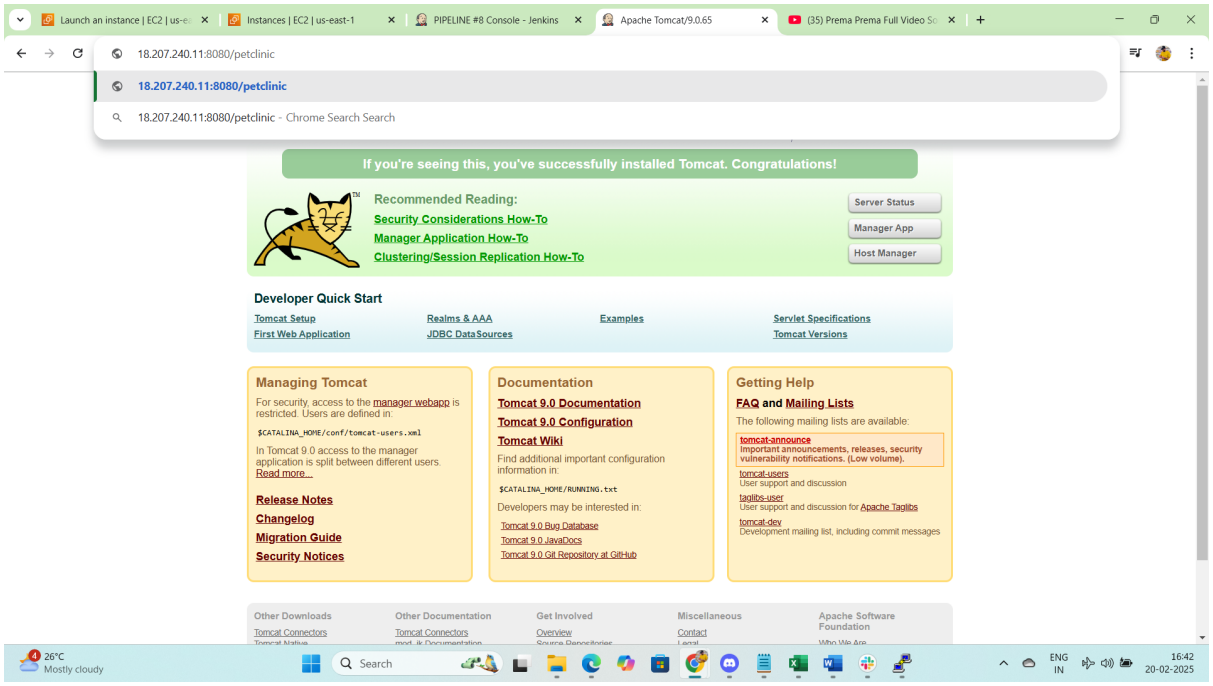
```groovy
stage('Deploy') {
    steps {
        sh "cp target/petclinic.war /opt/apache-tomcat-9.0.65/webapps/"
    }
}
```

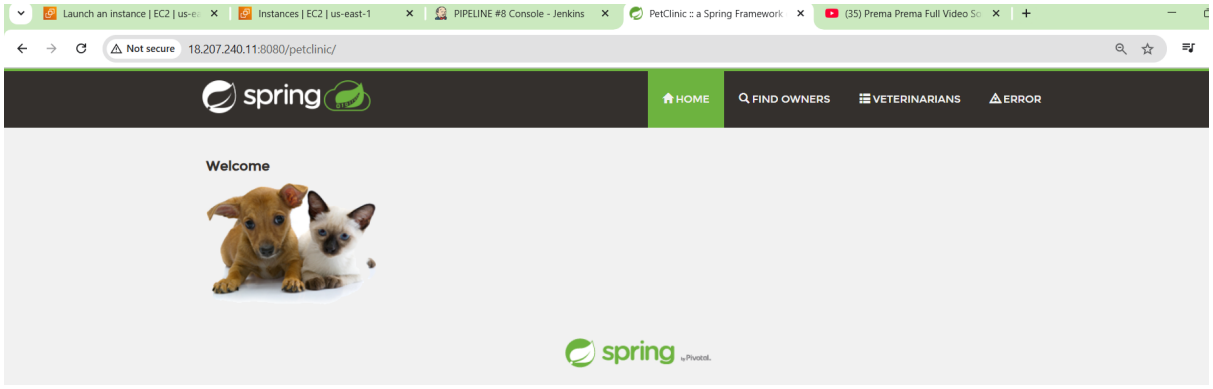
✅ **This is the most secure approach because it avoids sudo and password issues.**

```
        }

        stage('Build') {
            steps {
                sh "mvn clean package  -DskipTests"
            }
        }

        stage('Deplot to tomcat server') {
            steps {
                sh "| cp target/petclinic.war /opt/apache-tomcat-9.0.65/webapps/ "
            }
        }


    }
}
```


Launch an instance | EC2 | us-e
Instances | EC2 | us-east-1
PIPELINE #8 - Jenkins
Apache Tomcat/9.0.65
(35) Prema Prema Full Video So
Not secure
18.207.240.11:9090/job/PIPELINE/8/
Jenkins
Devops
log out
Dashboard > PIPELINE > #8
Status
Changes
Console Output
Edit Build Information
Delete build '#8'
Timings
Git Build Data
Pipeline Overview
Pipeline Console
Restart from Stage
Replay
Pipeline Steps
Workspaces
Previous Build
#8 (Feb 20, 2025, 11:11:12 AM)
Add description
Keep this build forever
Started by user Devops
Started 35 sec ago
Took 23 sec
This run spent:
11 ms waiting;
23 sec build duration;
23 sec total from scheduled to completion.
Revision: ec5eb4c76191f27f161c04bd4ca6c173614bd882
Repository: https://github.com/jaiswaladi246/Petclinic.git
refs/remotes/origin/main
No changes.
REST API
Jenkins 2.498
26°C
Mostly cloudy
Search
ENG
IN
16:41
20-02-2025


Launch an instance | EC2 | us-e
Instances | EC2 | us-east-1
PIPELINE #8 Console - Jenkins
Apache Tomcat/9.0.65
(35) Prema Prema Full Video So
Not secure
18.207.240.11:9090/job/PIPELINE/8/console
Dashboard > PIPELINE > #8
[INFO] Total time: 10.620 s
[INFO] Finished at: 2025-02-20T11:11:35Z
[INFO] --
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Deplot to tomcat server)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] sh
+ cp target/petclinic.war /opt/apache-tomcat-9.0.65/webapps/
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
REST API
Jenkins 2.498
26°C
Mostly cloudy
Search
ENG
IN
16:42
20-02-2025


Launch an instance | EC2 | us-east-1
Instances | EC2 | us-east-1
PIPELINE #8 Console - Jenkins
Apache Tomcat/9.0.65
(35) Prema Prema Full Video Song
18.207.240.11:8080/petclinic
18.207.240.11:8080/petclinic - Chrome Search Search
If you're seeing this, you've successfully installed Tomcat. Congratulations!
Recommended Reading:
Security Considerations How-To
Manager Application How-To
Clustering/Session Replication How-To
Server Status
Manager App
Host Manager
Developer Quick Start
Tomcat Setup
First Web Application
Realms & AAA
JDBC DataSources
Examples
Servlet Specifications
Tomcat Versions
Managing Tomcat
For security, access to the manager webapp is restricted. Users are defined in:
$CATALINA_HOME/conf/tomcat-users.xml
In Tomcat 9.0 access to the manager application is split between different users.
Read more...
Release Notes
Changelog
Migration Guide
Security Notices
Documentation
Tomcat 9.0 Documentation
Tomcat 9.0 Configuration
Tomcat Wiki
Find additional important configuration information in:
$CATALINA_HOME/RUNNING.txt
Developers may be interested in:
Tomcat 9.0 Bug Database
Tomcat 9.0 JavaDocs
Tomcat 9.0 Git Repository at GitHub
Getting Help
FAQ and Mailing Lists
The following mailing lists are available:
tomcat-announce
Important announcements, releases, security vulnerability notifications. (Low volume).
tomcat-users
User support and discussion
taglibs-user
User support and discussion for Apache Taglibs
tomcat-dev
Development mailing list, including commit messages
Other Downloads
Tomcat Connectors
Other Documentation
Tomcat Connectors
Get Involved
Overview
Miscellaneous
Contact
Apache Software Foundation
26°C
Mostly cloudy
Search
ENG
IN
16:42
20-02-2025


Launch an instance | EC2 | us-east-1
Instances | EC2 | us-east-1
PIPELINE #8 Console - Jenkins
PetClinic :: a Spring Framework
(35) Prema Prema Full Video Song
Not secure
18.207.240.11:8080/petclinic/
spring
HOME
FIND OWNERS
VETERINARIANS
ERROR
Welcome
spring by Pivotal.