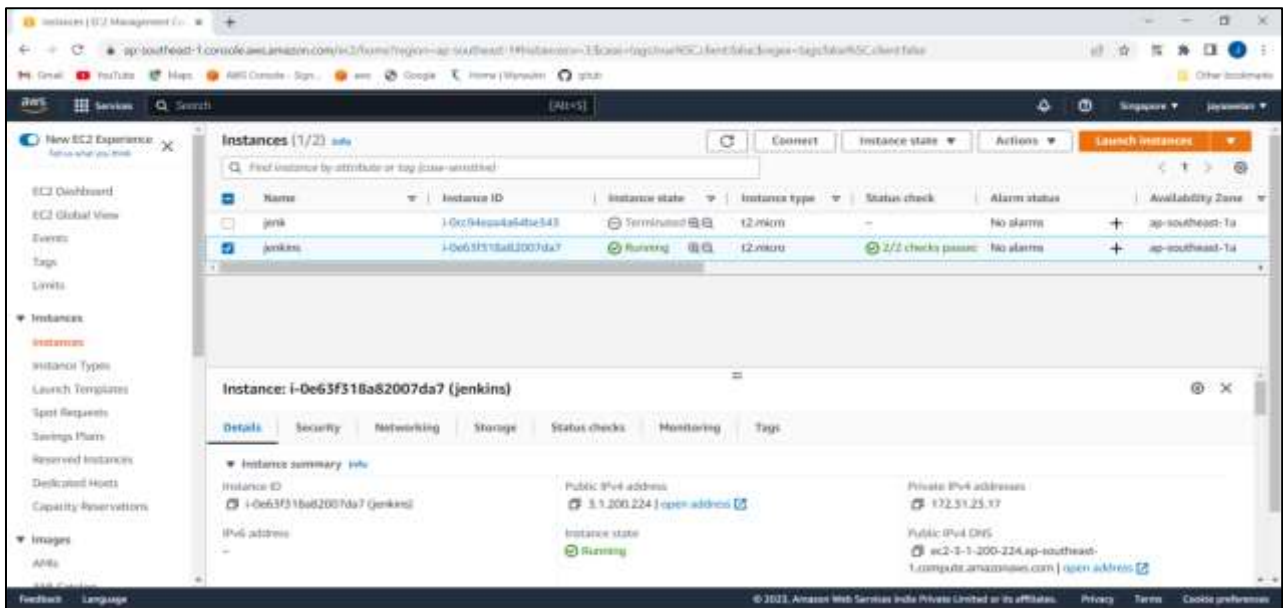


# Jenkins

## Application deployment using tomcat

**Step1:**Create Ec2 Ubuntu Server

Security group(all tcp) ---->storage (30gb)



**Step2:**login server and install java and Jenkins using this commands

### Jenkins Debian Packages

This is the Debian package repository of Jenkins to automate installation and upgrade. To use this repository, first add the key to your system:

```
curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo tee \
/usr/share/keyrings/jenkins-keyring.asc > /dev/null
```

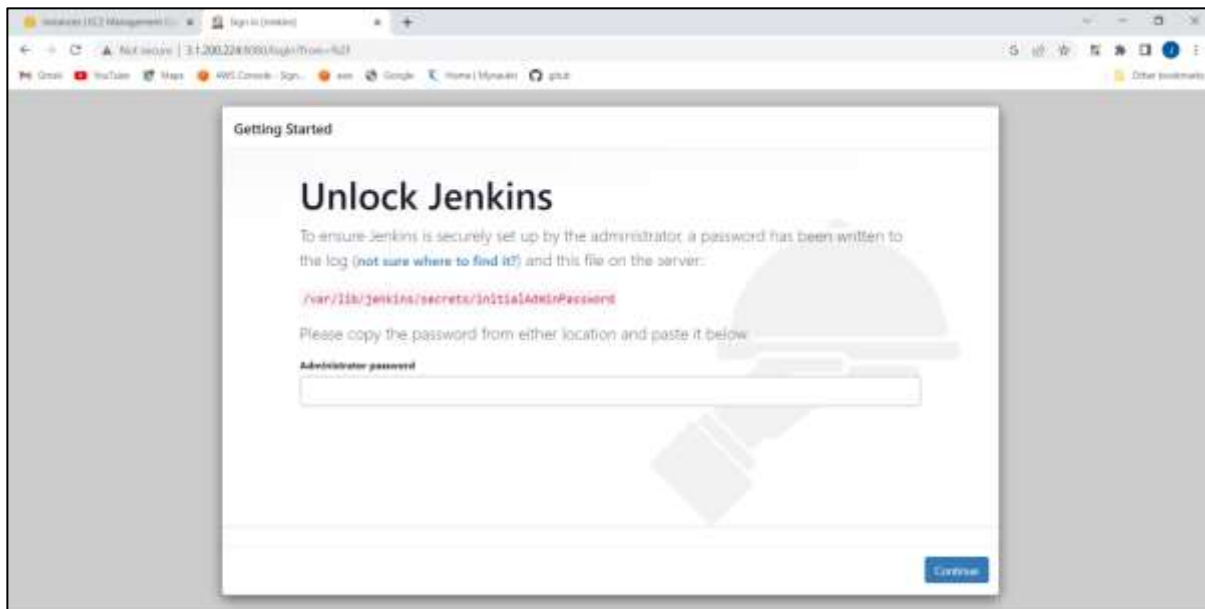
Then add a Jenkins apt repository entry:

```
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
```

Update your local package index, then finally install Jenkins:

```
sudo apt-get update
sudo apt-get install fontconfig openjdk-11-jre
sudo apt-get install jenkins
```

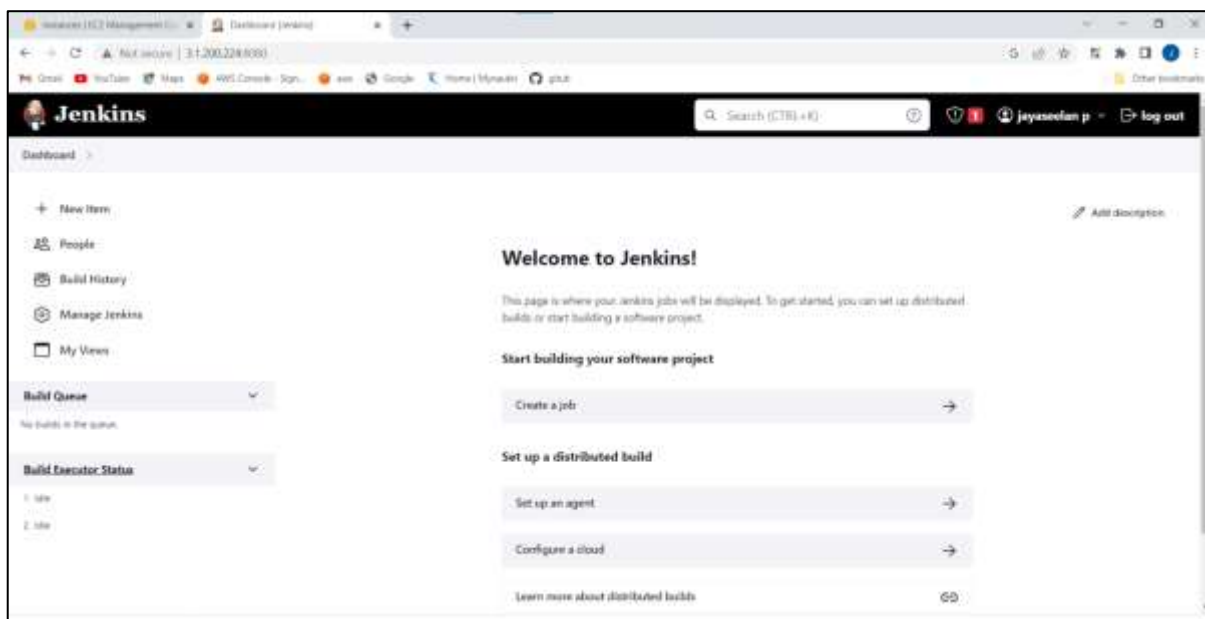
After java and Jenkins install ---->copy public id:8080 put chrome--->open Jenkins home page



Now password put --->#sudo cat

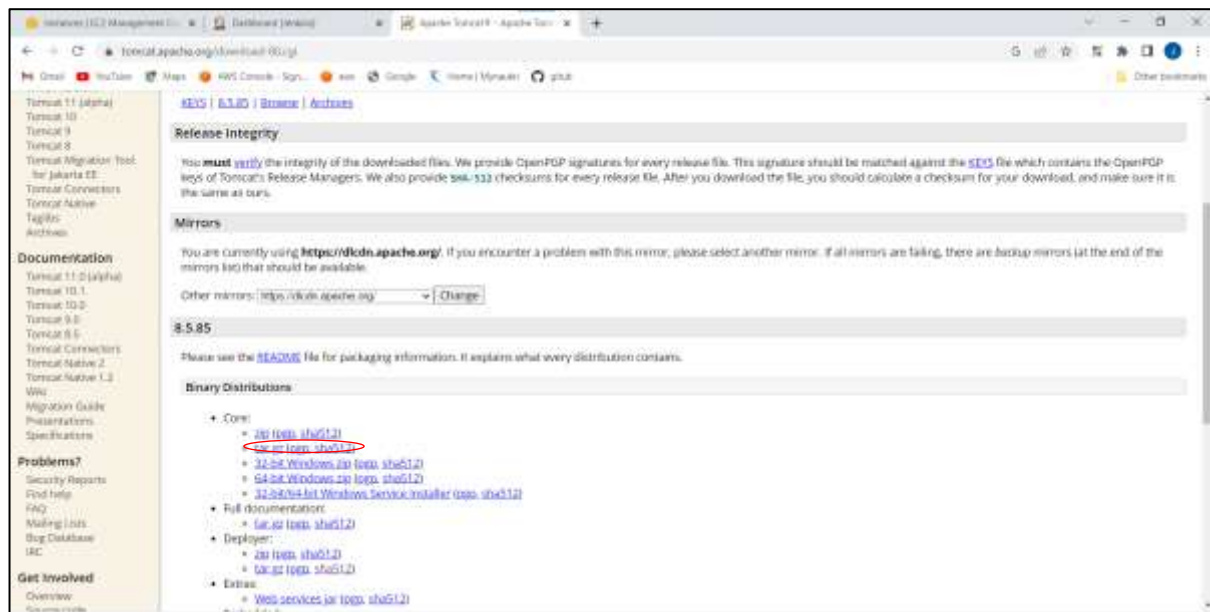
`/var/lib/jenkins/secrets/initialAdminPassword`

Put Ubuntu it will shown password then copy and paste.



### Step3:Tomcat Download

- Google --->apache tomcat search --->download --->click tomcat8----> [tar.gz](#) ([pgp](#), [sha512](#))--->copy this file and put Ubuntu using wget



#Wget <https://dlcdn.apache.org/tomcat/tomcat-8/v8.5.85/bin/apache-tomcat-8.5.85.tar.gz>

#ll --->shown apache-tomcat-8.5.85.tar.gz

#tar xvzf apache-tomcat-8.5.85.tar.gz

#ll --->shown apache-tomcat-8.5.85/

#rm -rv apache-tomcat-8.5.85.tar.gz

#cd apache-tomcat-8.5.85/

```

apache-tomcat-8.5.85/webapps/manager/images/tomcat.svg
apache-tomcat-8.5.85/webapps/manager/index.jsp
apache-tomcat-8.5.85/webapps/manager/status.xsd
apache-tomcat-8.5.85/webapps/manager/xforn.xml
apache-tomcat-8.5.85/bin/catalina.sh
apache-tomcat-8.5.85/bin/ciphers.sh
apache-tomcat-8.5.85/bin/configtest.sh
apache-tomcat-8.5.85/bin/daemon.sh
apache-tomcat-8.5.85/bin/digest.sh
apache-tomcat-8.5.85/bin/setclasspath.sh
apache-tomcat-8.5.85/bin/shutdown.sh
apache-tomcat-8.5.85/bin/startup.sh
apache-tomcat-8.5.85/bin/tool-wrapper.sh
apache-tomcat-8.5.85/bin/version.sh
ubuntu@ip-172-31-23-17:~$ ll
total 10420
drwxr-xr-x 5 ubuntu ubuntu 4096 Feb 11 10:54 ./
drwxr-xr-x 3 root root 4096 Feb 11 10:24 ../
-rw-r--r-- 1 ubuntu ubuntu 220 Jan 6 2022 .bash_logout
-rw-r--r-- 1 ubuntu ubuntu 3771 Jan 6 2022 .bashrc
drwx----- 2 ubuntu ubuntu 4096 Feb 11 10:33 .cache/
-rw-r--r-- 1 ubuntu ubuntu 807 Jan 6 2022 .profile
drwx----- 2 ubuntu ubuntu 4096 Feb 11 10:24 .ssh/
-rw-r--r-- 1 ubuntu ubuntu 0 Feb 11 10:33 .sudo_as_admin_successful
drwxrwxr-x 9 ubuntu ubuntu 4096 Feb 11 10:54 apache-tomcat-8.5.85/
-rw-rw-r-- 1 ubuntu ubuntu 10633461 Jan 11 00:29 apache-tomcat-8.5.85.tar.gz
ubuntu@ip-172-31-23-17:~$ cd apache-tomcat-8.5.85/
ubuntu@ip-172-31-23-17:~/apache-tomcat-8.5.85$ cd ..
ubuntu@ip-172-31-23-17:~$ rm -rf apache-tomcat-8.5.85.tar.gz
ubuntu@ip-172-31-23-17:~$ ll
total 12
drwxr-xr-x 5 ubuntu ubuntu 4096 Feb 11 10:55 ./
drwxr-xr-x 3 root root 4096 Feb 11 10:24 ../
-rw-r--r-- 1 ubuntu ubuntu 220 Jan 6 2022 .bash_logout
-rw-r--r-- 1 ubuntu ubuntu 3771 Jan 6 2022 .bashrc
drwx----- 2 ubuntu ubuntu 4096 Feb 11 10:33 .cache/
-rw-r--r-- 1 ubuntu ubuntu 807 Jan 6 2022 .profile
drwx----- 2 ubuntu ubuntu 4096 Feb 11 10:24 .ssh/
-rw-r--r-- 1 ubuntu ubuntu 0 Feb 11 10:33 .sudo_as_admin_successful
drwxrwxr-x 9 ubuntu ubuntu 4096 Feb 11 10:54 apache-tomcat-8.5.85/
ubuntu@ip-172-31-23-17:~$ cd apache-tomcat-8.5.85/
ubuntu@ip-172-31-23-17:~/apache-tomcat-8.5.85$

```

## Step4:Change The Port Number For 8080 To 9090 For Using Tomcat

```
#cd apache-tomcat-8.5.85/
```

```
#cd conf/ --->server.xml
```

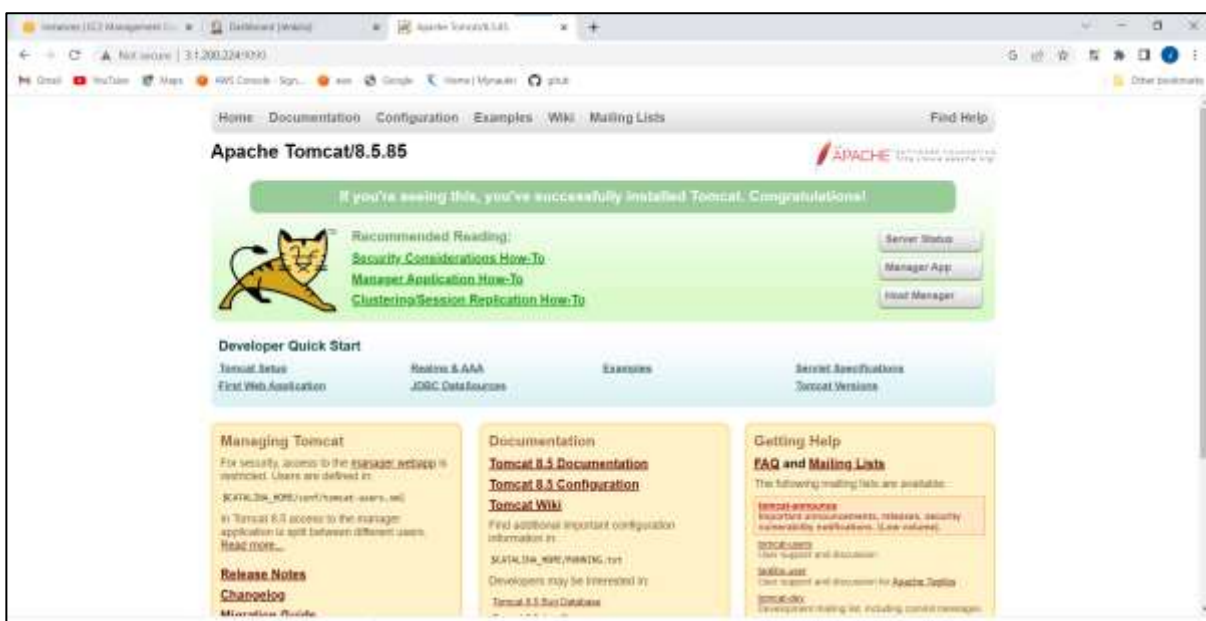
```
#vi server.xml ----->edit
```



```
#cd bin/
```

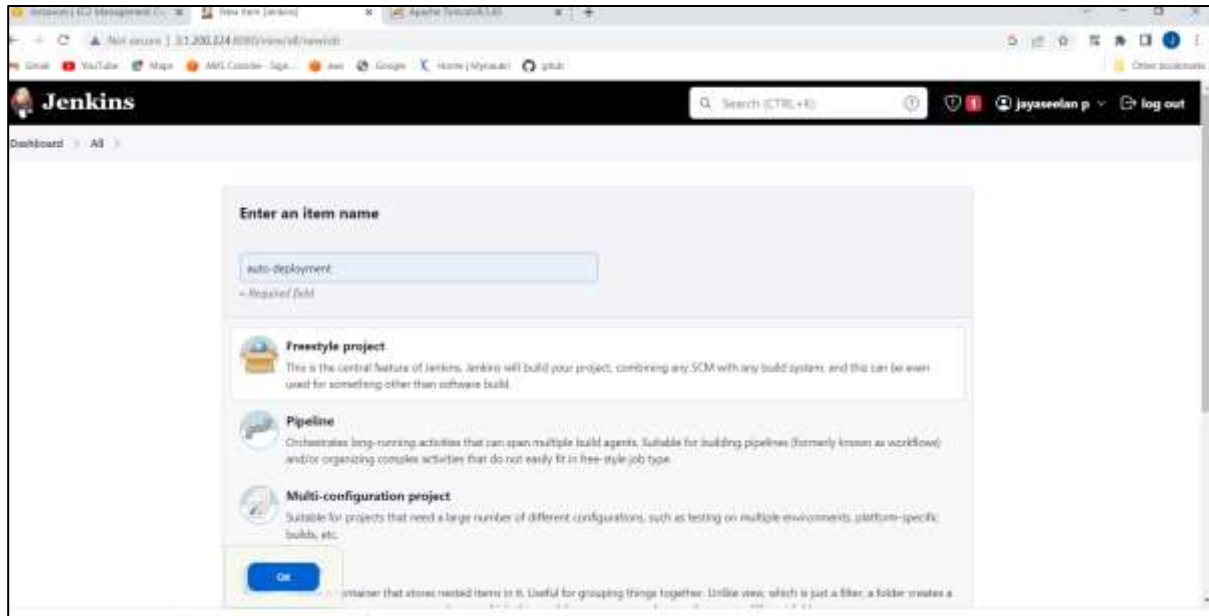
```
#./ startup.sh* ---->tomcat start
```

Now server public ip:9090 put chrome tomcat home page open

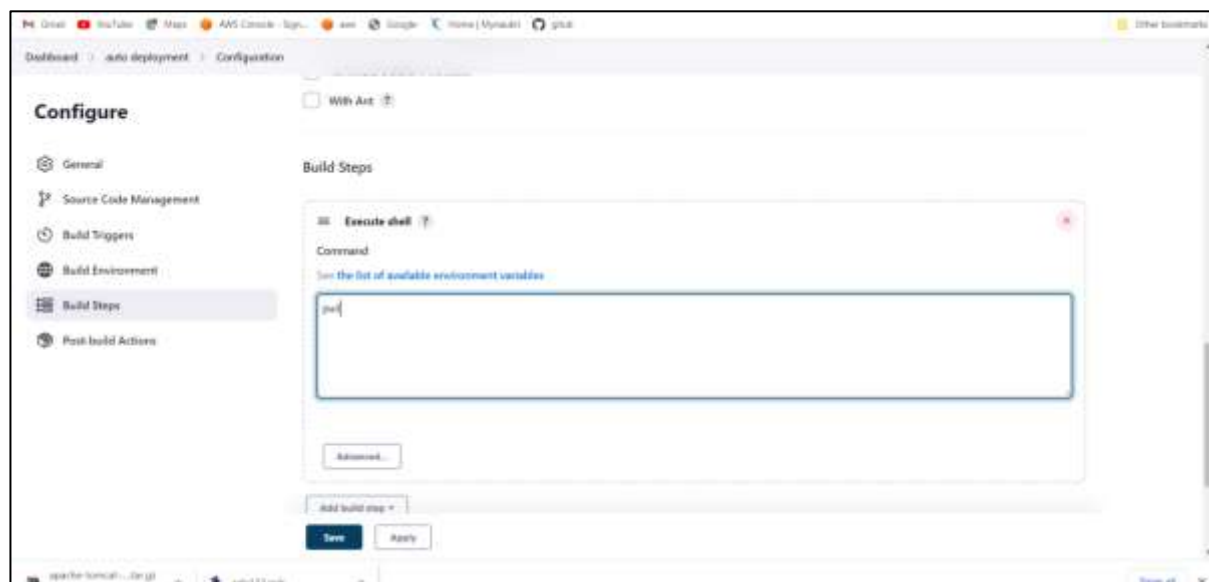


## Step5:Create Job In Jenkins

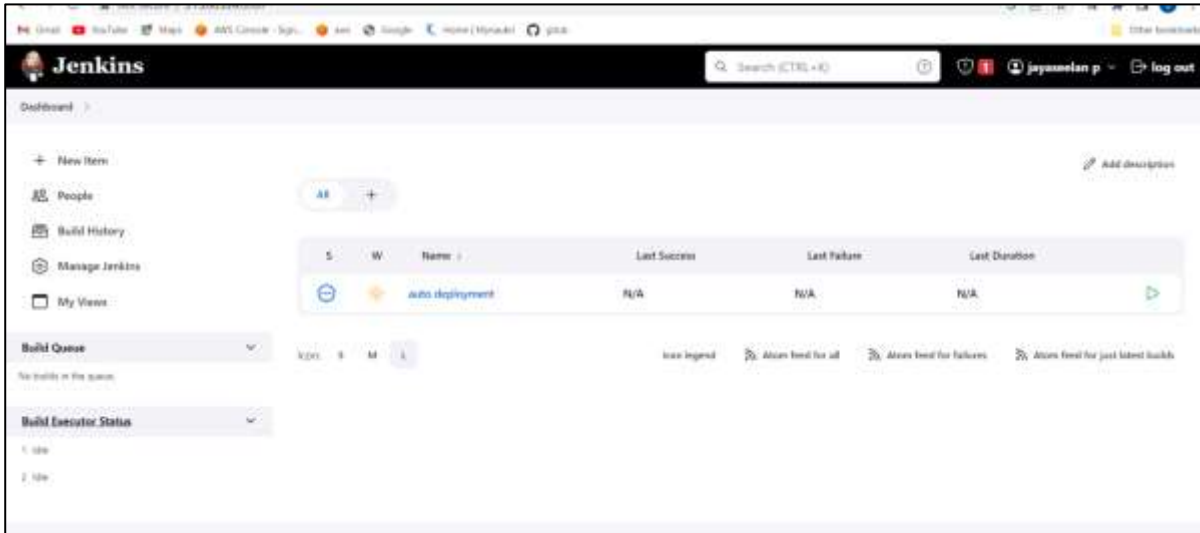
Jenkins--->new item --->name(auto deployment)----->select freestyle project --->ok



Build steps --->add build shell --->click execute shell --->(pwd) --->save

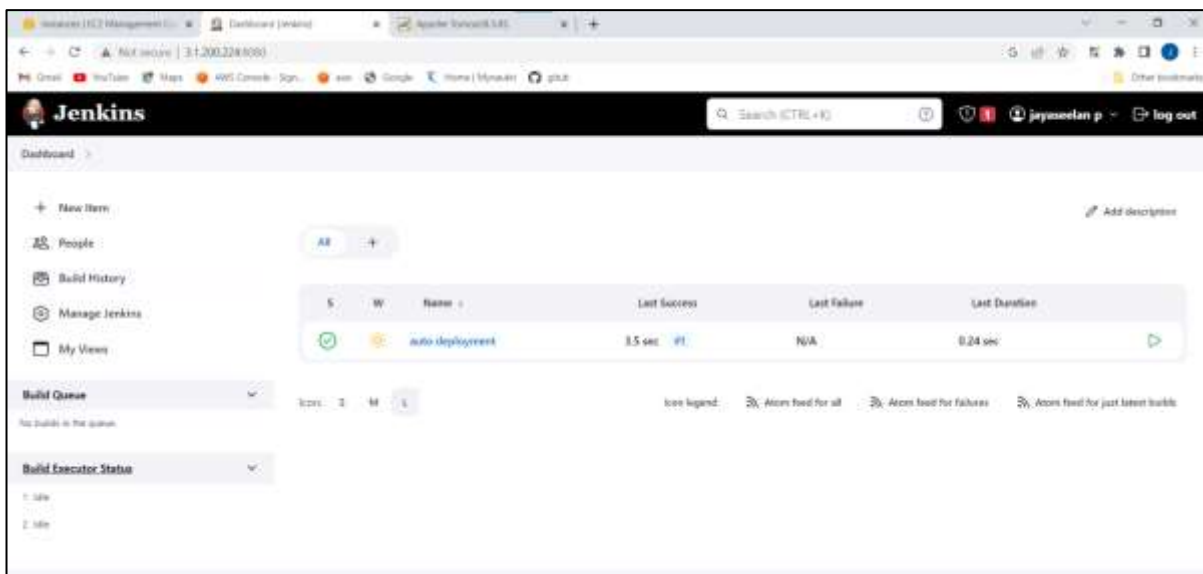


Auto deployment job created..



Now go Jenkins job save directory

#cd /var/lib/Jenkins ---->it will shown workspace(first can't show)  
thn Jenkins home page go then play the job one time then come Ubuntu server  
then show workspace)

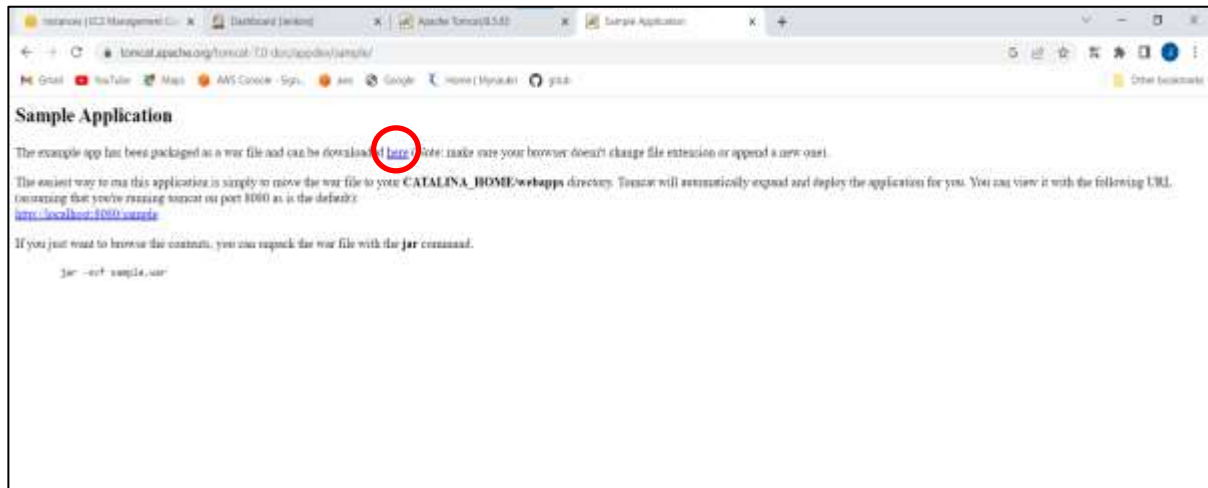


#cd workspace --->shown job name('auto deployment')

#cd 'auto deployment'/'

Now download tomcat sample.war file(google --->tomcat sample  
war file--->click first line --->copy click word and put Ubuntu  
using (sudo wget https://tomcat.apache.org/tomcat-7.0-  
doc/appdev/sample/sample.war)

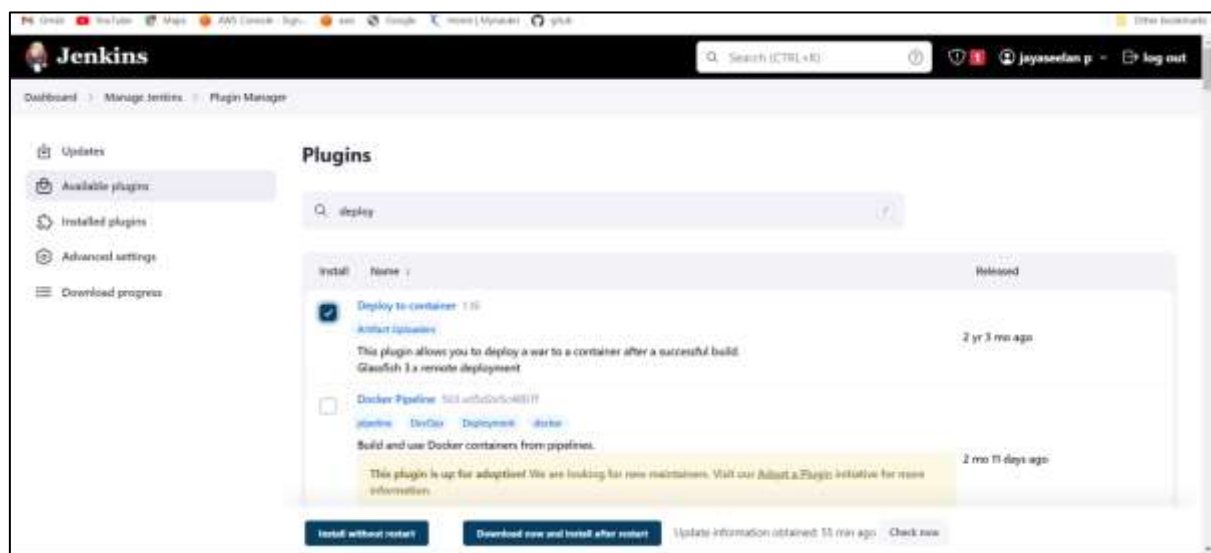




#ll --->show sample.war ---->this sample tomcat war file

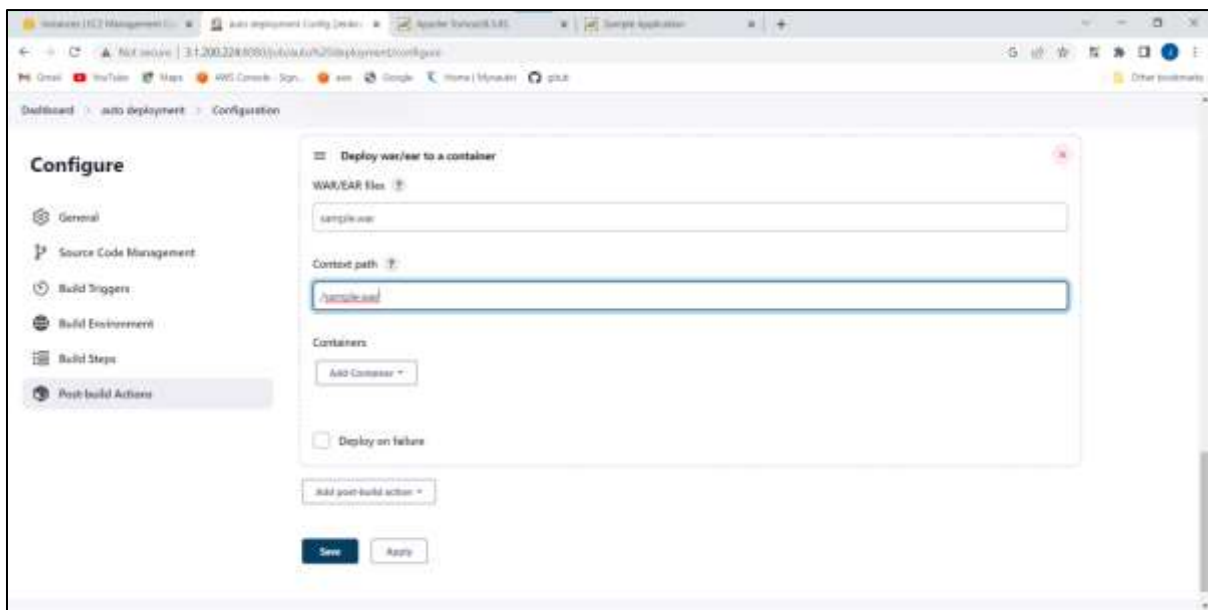
## Step6: Add Plugin

Jenkin home ---->manage jenkins--->manage pluggin --->available pluggin--->search(deploy to container)---->install without restart



## Step7:Deploy The Job

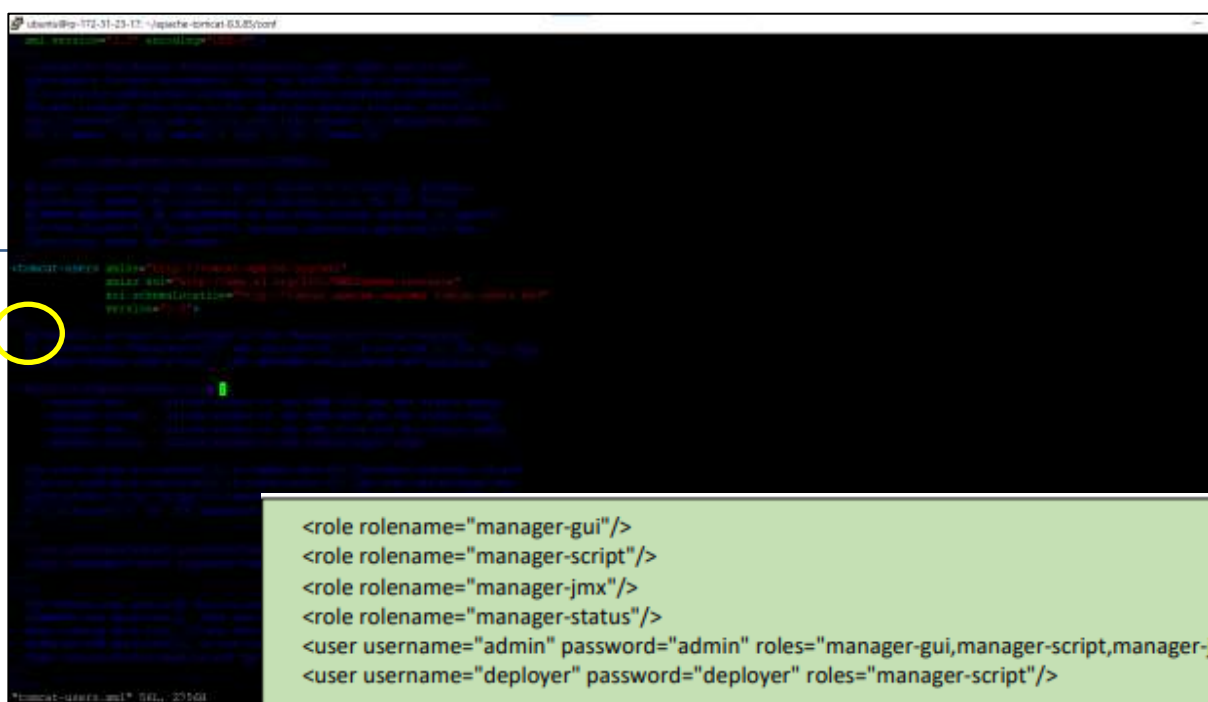
Dashboard --->Auto deployment job click ---->configure --->built shell already one here that remove--->built steps --->add post-built actions---> Deploy war/ear to a container---> WAR/EAR files(sample.war)--->context path(/sample.war)



Now before add credential add rolename and manager

```
#cd apache-tomcat-8.5.85/
```

```
#cd config/ | #vi tomcat-users.xml
```





```
shardip-172-31-23-17:~$ cd /usr/local/tomcat-8.5.85/

# cd bin/

# ./shutdown.sh

# ./startup.sh
```

Now tomcat restart

#cd apache-tomcat-8.5.85/

#cd bin/

#./shutdown.sh\*

#./startup.sh\*

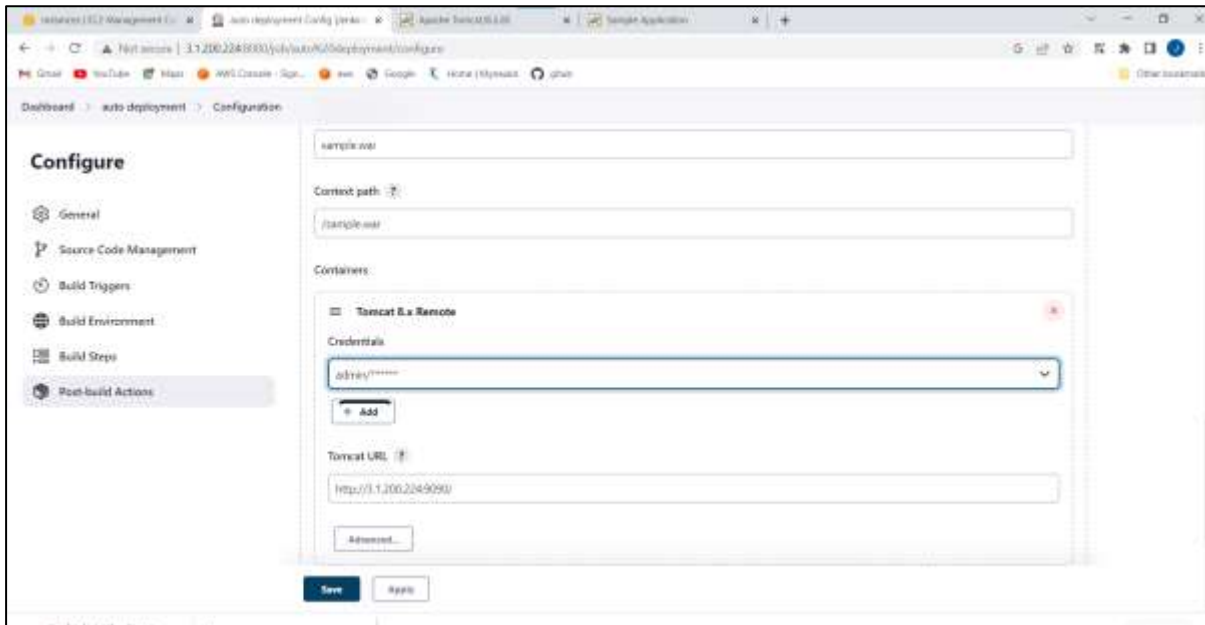
```
shardip-172-31-23-17:~$ cd /usr/local/tomcat-8.5.85/

# cd bin/

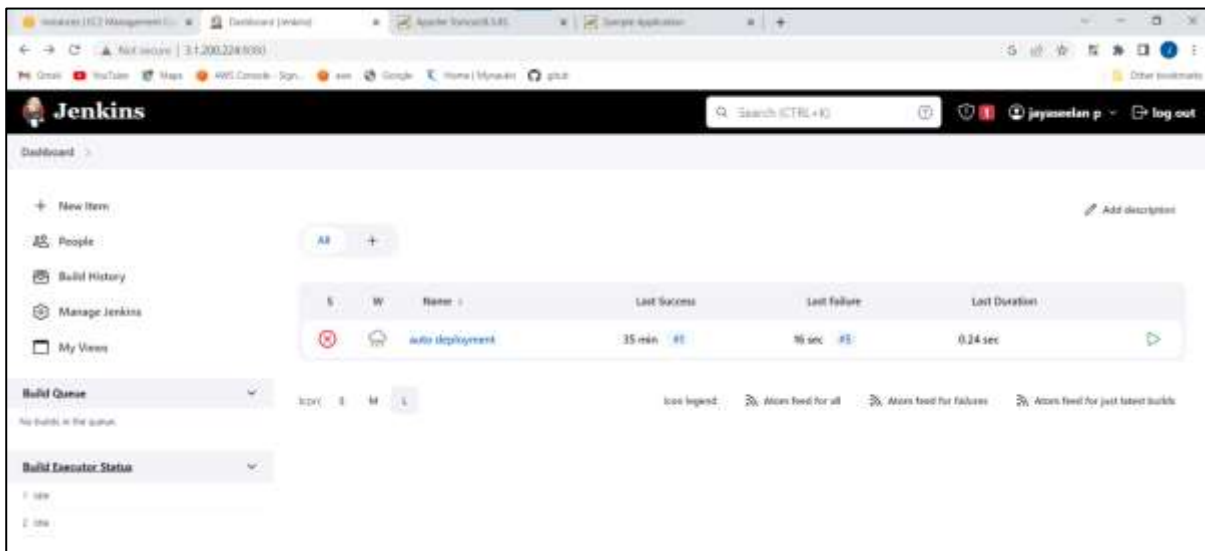
# ./shutdown.sh

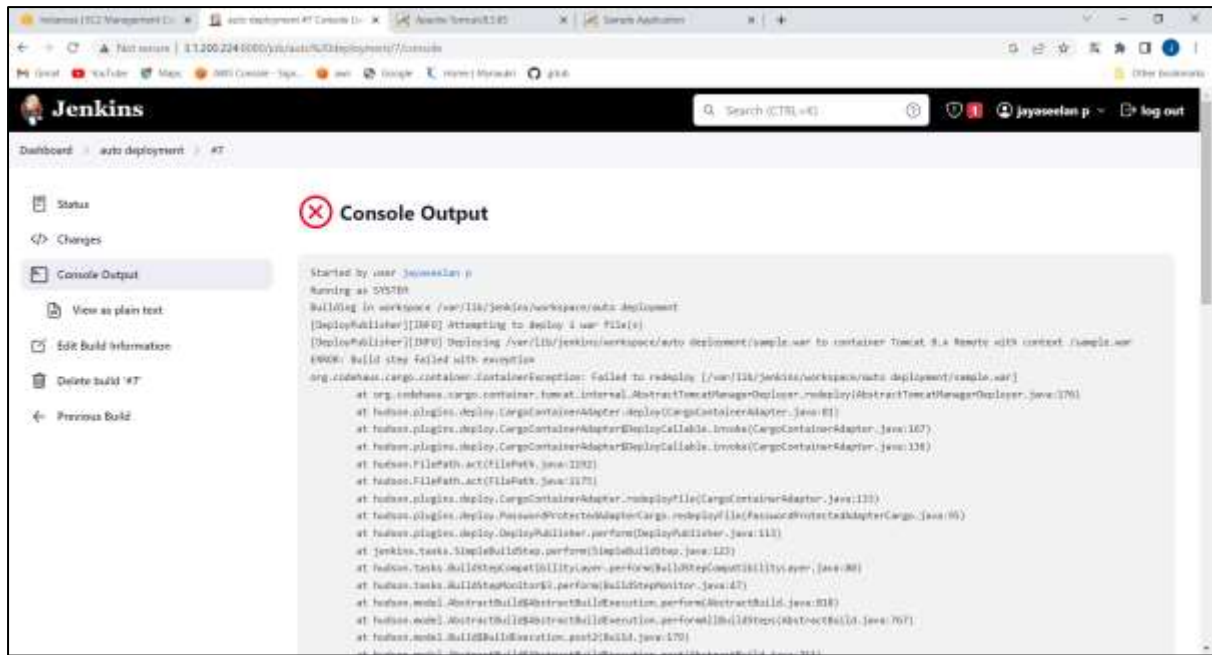
# ./startup.sh
```

Now go Jenkins continue the job --->container ---->add container(select tomcat 8x)--->add --->Jenkins--->- credential(admin\*\*) Select--->username(admin)--->- password(admin)--->add ---->tomcat url(http://3.1.200.224:9090/)----->save.



Now onetime play the job it will failed..





## Step8:Error Clear

#cd apache-tomcat-8.5.85/

# cd webapps/

#cd manager/

#cd META-INF/---->shown context.xml

#vi context.xml ----->edit To change and use this simple  
(<!-- and -->)



This place  
enter and copy  
<!--

This place  
enter and copy  
-->



Now tomcat restart

```
#cd apache-tomcat-8.5.85/
```

```
#cd bin/
```

```
#./shutdown.sh*
```

```
#./startup.sh*
```

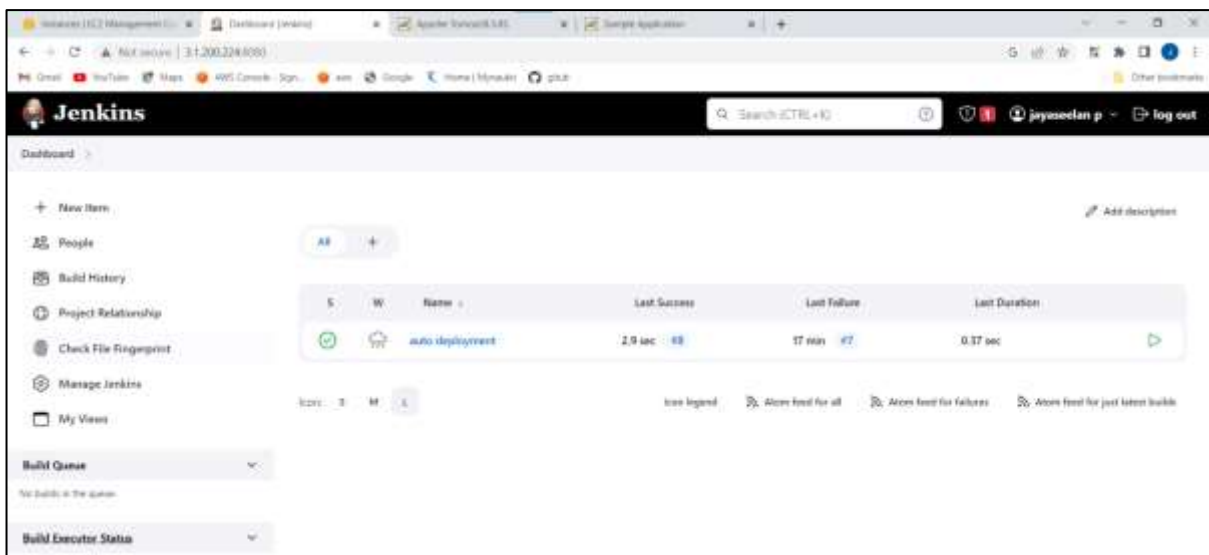
```

-rw-r--r-- 1 ubuntu ubuntu 14940 Jan 11 00:00 catalina.bat
-rwxr-x-- 1 ubuntu ubuntu 25204 Jan 11 00:00 catalina.sh*
-rw-r--r-- 1 ubuntu ubuntu 2173 Jan 11 00:00 cipkeys.bat
-rwxr-x-- 1 ubuntu ubuntu 1997 Jan 11 00:00 cipkeys.sh*
-rw-r--r-- 1 ubuntu ubuntu 214119 Jan 11 00:00 commons-daemon-native.jar.gz
-rw-r--r-- 1 ubuntu ubuntu 25765 Jan 11 00:00 commons-daemon.jar
-rw-r--r-- 1 ubuntu ubuntu 2040 Jan 11 00:00 configtest.bat
-rwxr-x-- 1 ubuntu ubuntu 1822 Jan 11 00:00 configtest.sh*
-rwxr-x-- 1 ubuntu ubuntu 8160 Jan 11 00:00 daemon.sh*
-rw-r--r-- 1 ubuntu ubuntu 2081 Jan 11 00:00 digest.bat
-rwxr-x-- 1 ubuntu ubuntu 1965 Jan 11 00:00 digest.sh*
-rw-r--r-- 1 ubuntu ubuntu 3460 Jan 11 00:00 setclasspath.bat
-rwxr-x-- 1 ubuntu ubuntu 2706 Jan 11 00:00 setclasspath.sh*
-rw-r--r-- 1 ubuntu ubuntu 2020 Jan 11 00:00 shutdown.bat
-rwxr-x-- 1 ubuntu ubuntu 1962 Jan 11 00:00 shutdown.sh*
-rw-r--r-- 1 ubuntu ubuntu 2022 Jan 11 00:00 startup.bat
-rwxr-x-- 1 ubuntu ubuntu 1964 Jan 11 00:00 startup.sh*
-rw-r--r-- 1 ubuntu ubuntu 52029 Jan 11 00:00 tomcat-juli.jar
-rw-r--r-- 1 ubuntu ubuntu 426553 Jan 11 00:00 tomcat-native.jar.gz
-rw-r--r-- 1 ubuntu ubuntu 4574 Jan 11 00:00 tool-wrapper.bat
-rwxr-x-- 1 ubuntu ubuntu 5540 Jan 11 00:00 tool-wrapper.sh*
-rw-r--r-- 1 ubuntu ubuntu 2024 Jan 11 00:00 version.bat
-rwxr-x-- 1 ubuntu ubuntu 1962 Jan 11 00:00 version.sh*
ubuntu@ip-172-31-13-17: /usr/local/apache-tomcat-8.5.85/bin$ ./shutdown.sh*
Using CATALINA_BASE:   /home/ubuntu/apache-tomcat-8.5.85
Using CATALINA_HOME:   /home/ubuntu/apache-tomcat-8.5.85
Using CATALINA_TMPDIR: /home/ubuntu/apache-tomcat-8.5.85/temp
Using JRE_HOME:        /usr
Using CLASSPATH:       /home/ubuntu/apache-tomcat-8.5.85/bin/bootstrap.jar:/home/ubuntu/apache-tomcat-8.5.85/bin/tomcat-juli.jar
Using CATALINA_OPTS:
INFO: Stopped up JRE_JAVA_OPTS: --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
ubuntu@ip-172-31-13-17: /usr/local/apache-tomcat-8.5.85/bin$ ./startup.sh*
Using CATALINA_BASE:   /home/ubuntu/apache-tomcat-8.5.85
Using CATALINA_HOME:   /home/ubuntu/apache-tomcat-8.5.85
Using CATALINA_TMPDIR: /home/ubuntu/apache-tomcat-8.5.85/temp
Using JRE_HOME:        /usr
Using CLASSPATH:       /home/ubuntu/apache-tomcat-8.5.85/bin/bootstrap.jar:/home/ubuntu/apache-tomcat-8.5.85/bin/tomcat-juli.jar
Using CATALINA_OPTS:
Tomcat started.
ubuntu@ip-172-31-13-17: /usr/local/apache-tomcat-8.5.85/bin$

```

Now go Jenkins dashboard job and play button click

And its running



Now public ip:9090/sample.war ----->put chrome page it will shown sample.war file content

