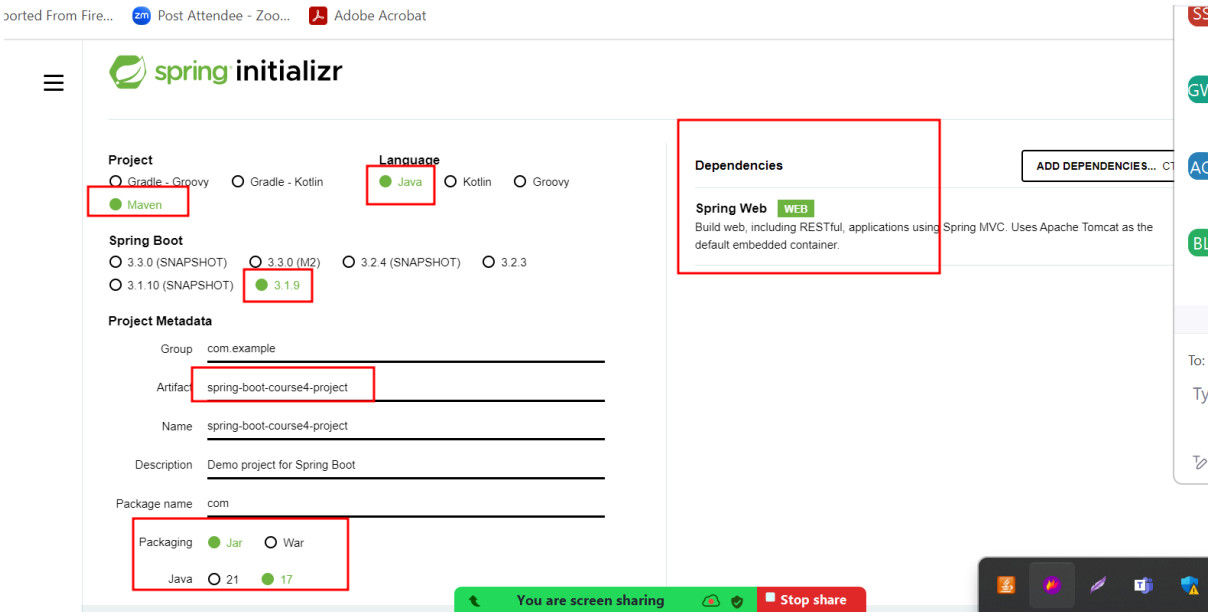
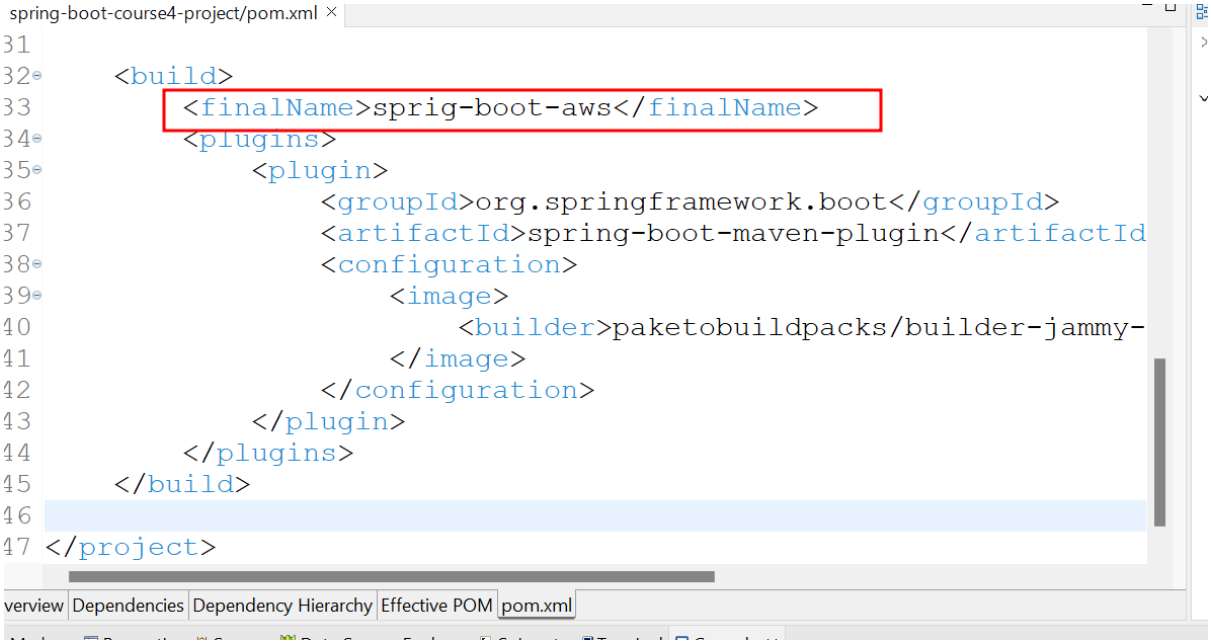
Course 4

1. Create spring boot project using spring initializer
   Create simple rest api to display welcome message.
   With only one web starter



2. Create separate folder as course 4 assignment/projects
3. Extract the project and import in eclipse IDE.
4. Create simple rest api with get method to return simple message with basic styling.
5. Now we need to create jar file for spring boot project.
6. If we need to custom name for jar file do the changes in pom.xml file



7. Using eclipse IDE you need to create jar file with help of run with maven install option.
   Or
8. Using mvn package command you can create the jar file.
9. Now we need to create Dockerfile to create the image for spring boot application.
10. We create docker image in local machine and we will test the application.
11. Start the docker, create the image and run the container.
    docker build -t my-spring-app . -f Dockerfile
    docker images
    docker run -d -p 9090:9090 my-spring-app
    docker ps

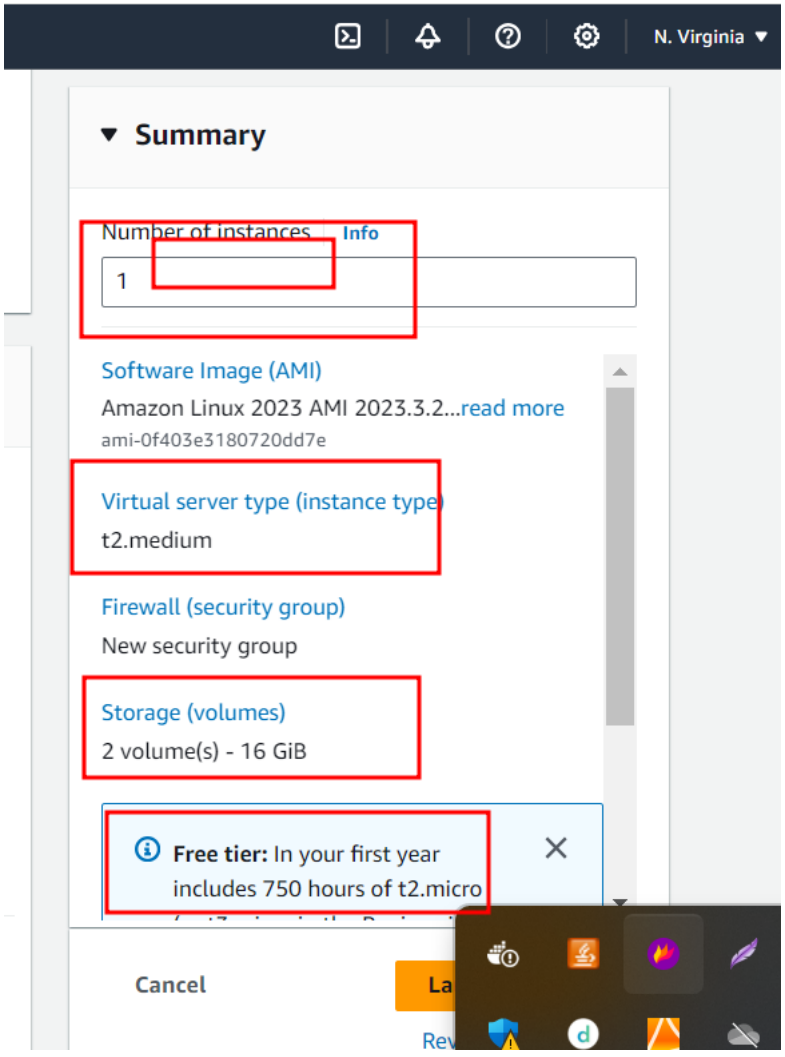
    check the application running or not.
12. Create the Jenkinsfile which is responsible to build the project using maven command, create docker image using docker file and run container.
13. Create Remote repository in git hub account and create token and push this project from local to remote repository.
    First create remote repository
    Then in local machine inside spring project open terminal
    git init

git add .
git commit -m “done”
git remote add origin URLWithToken
git push -u origin HEAD

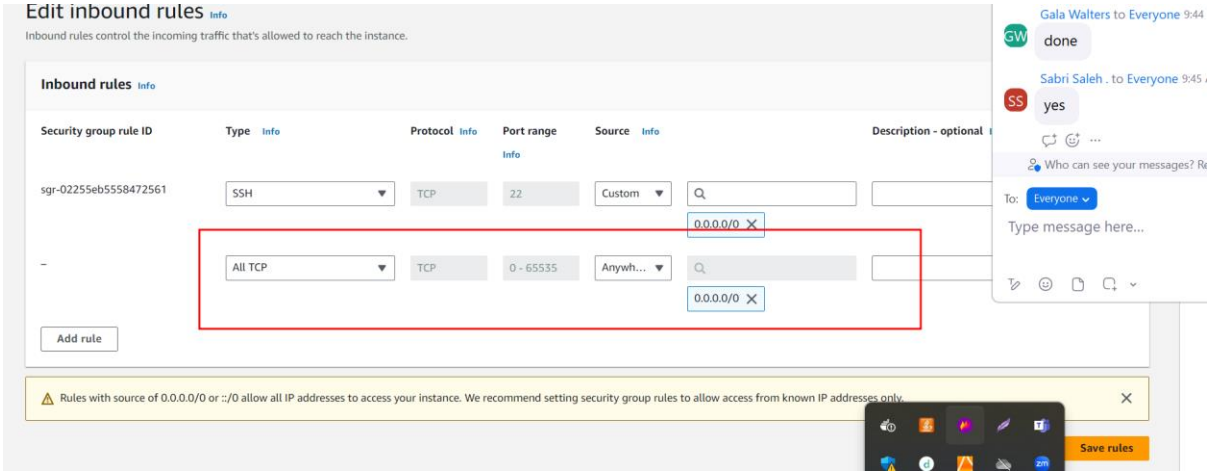
git remote add origin https://token@github.com/Kaleakash/course4-caltech-batch-assignment.git

https://github.com/Kaleakash/course4-caltech-batch-assignment.git

14. After push the code in github account.
15. Now we need to login for AWS account and create EC2 instance.



16. In security group we need to open two port number 8080 for jenkin 9090 for Spring boot application.
    Open all port number security group inbound rules.



Now we need to install required software

Git
Java
Jenkin
Now using your EC2 instance public id address with port number 8080 We can open Jenkin software.

Below all command is use to install git, java, jenkin, docker and provide the permission

git install

--> sudo yum install git

➔ git --version

java install
--> sudo yum install java

➔ java –version

install Jenkin

-->sudo wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat/jenkins.repo

-->sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key

--> sudo yum install jenkins

--> sudo service jenkins start

--> sudo systemctl status jenkins

Install the docker

➔ sudo yum install docker

→sudo service docker start

→sudo docker info

----if you want to run docker and docker-compose in jenkin then please execute these command ----------

sudo usermod -a -G docker jenkins

sudo usermod -a -G docker ec2-user (ec2-user is user name of instance)

sudo chmod 777 /var/run/docker.sock

please restart Jenkin server

→sudo service jenkins restart

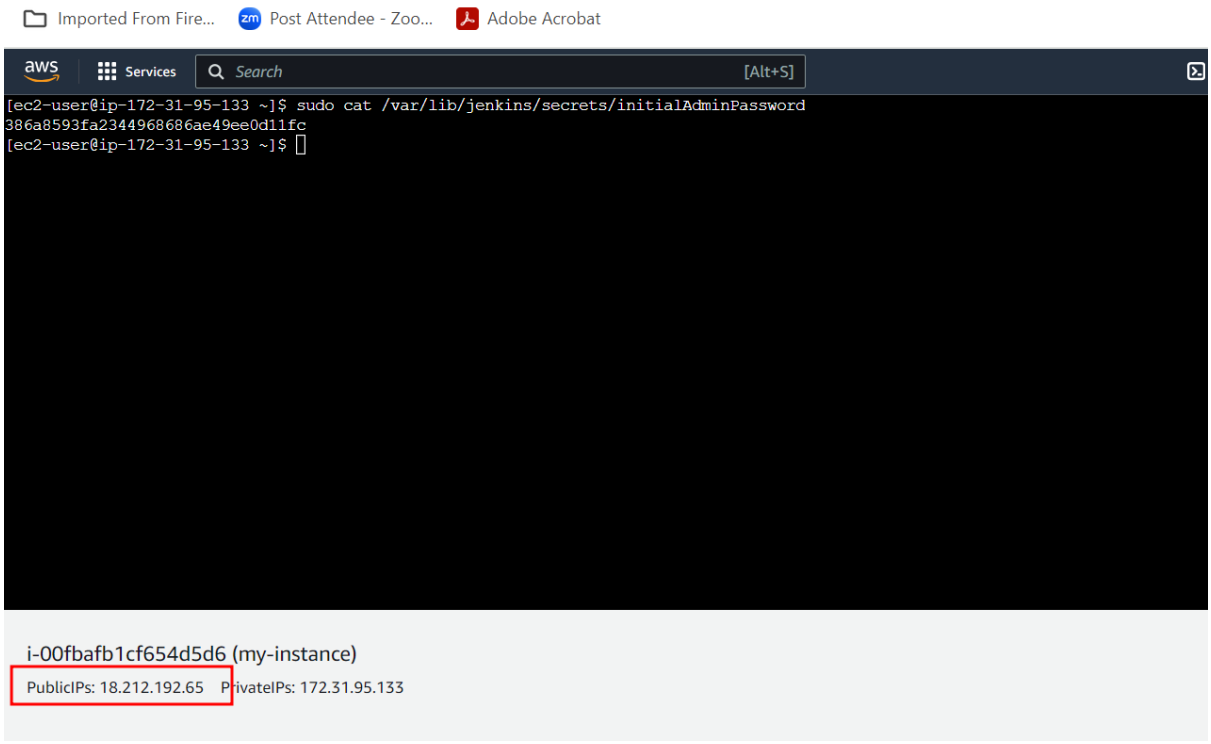
after restart check the Jenkin status

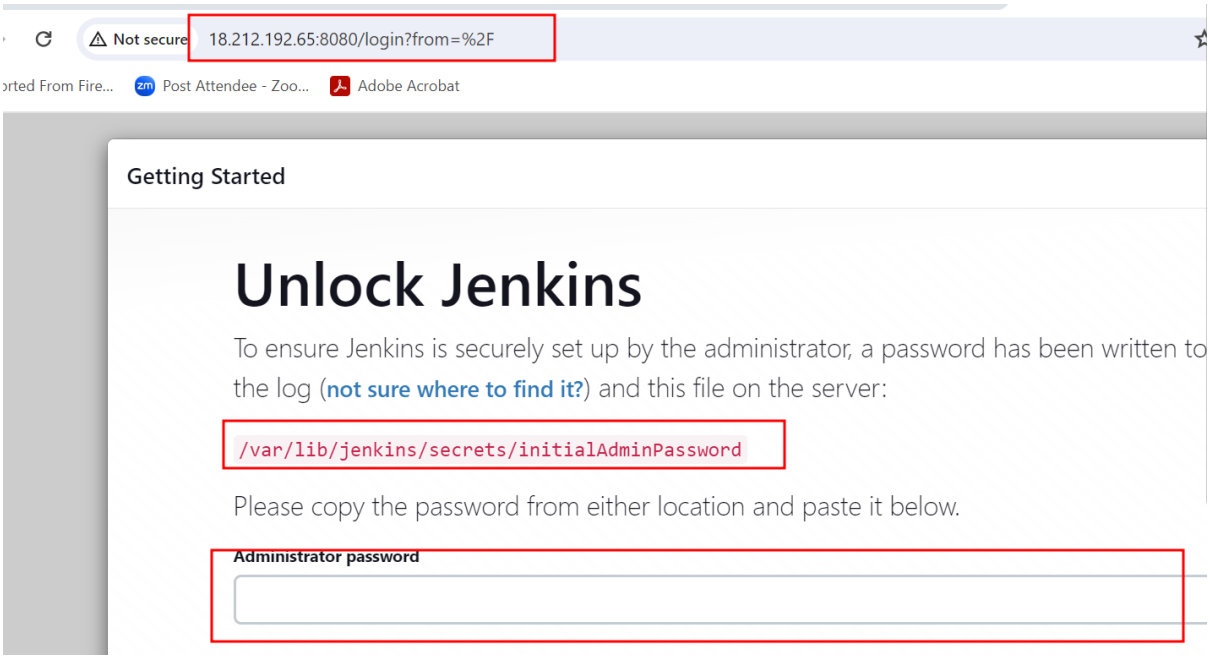
→sudo systemctl status jenkins

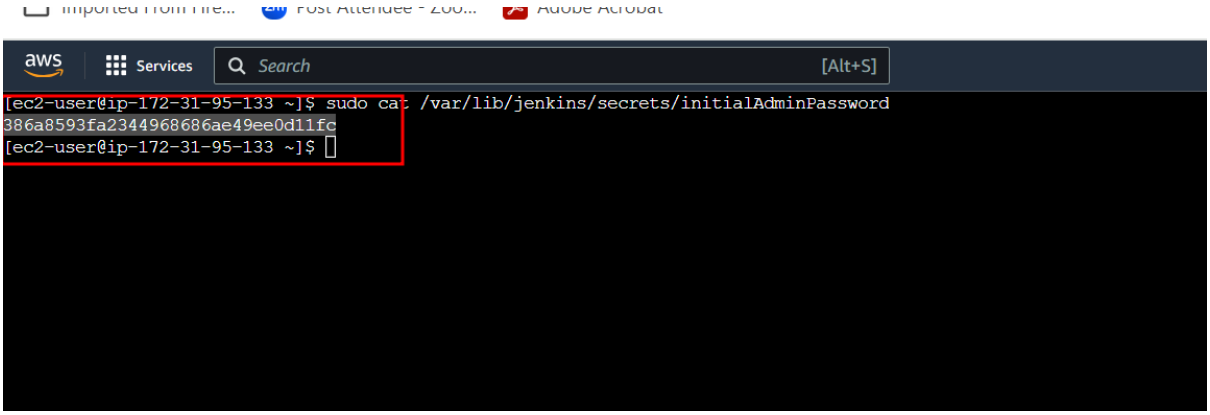
to find jenkin password

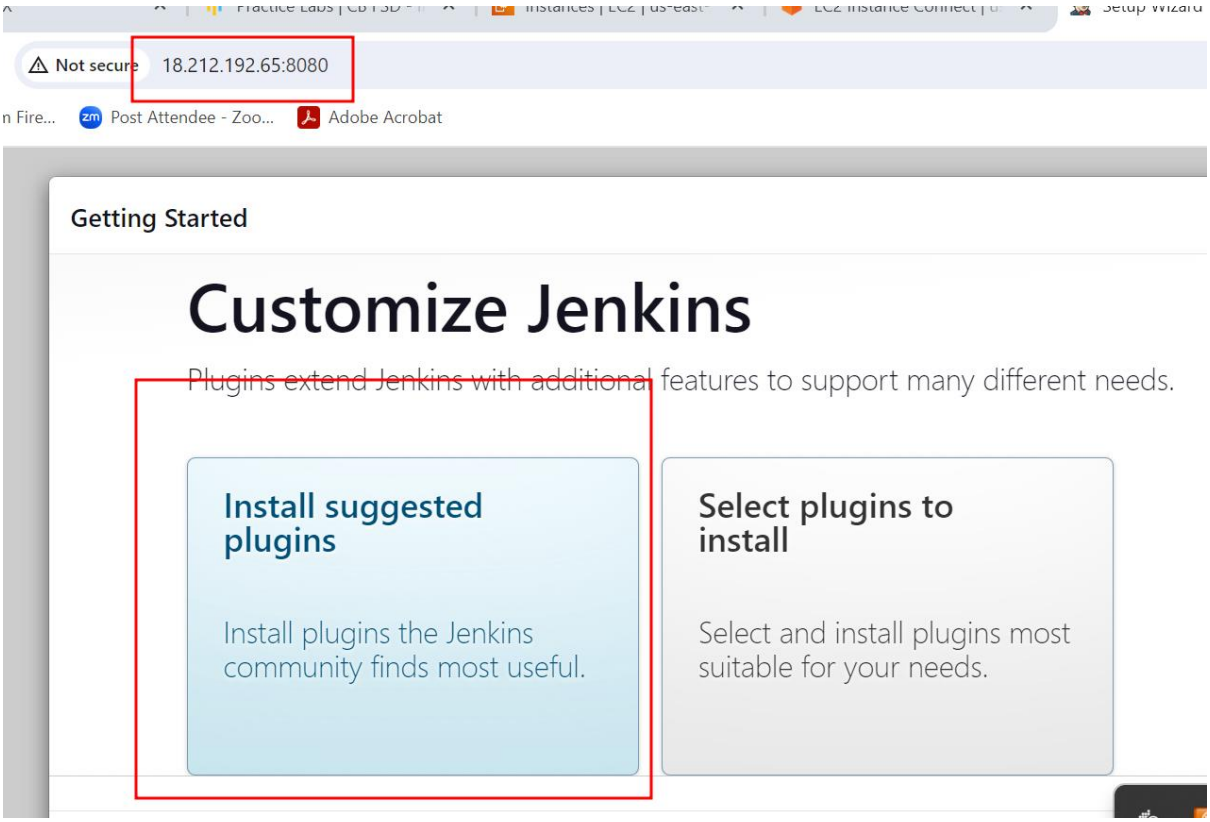
--> sudo cat /var/lib/jenkins/secrets/initialAdminPassword

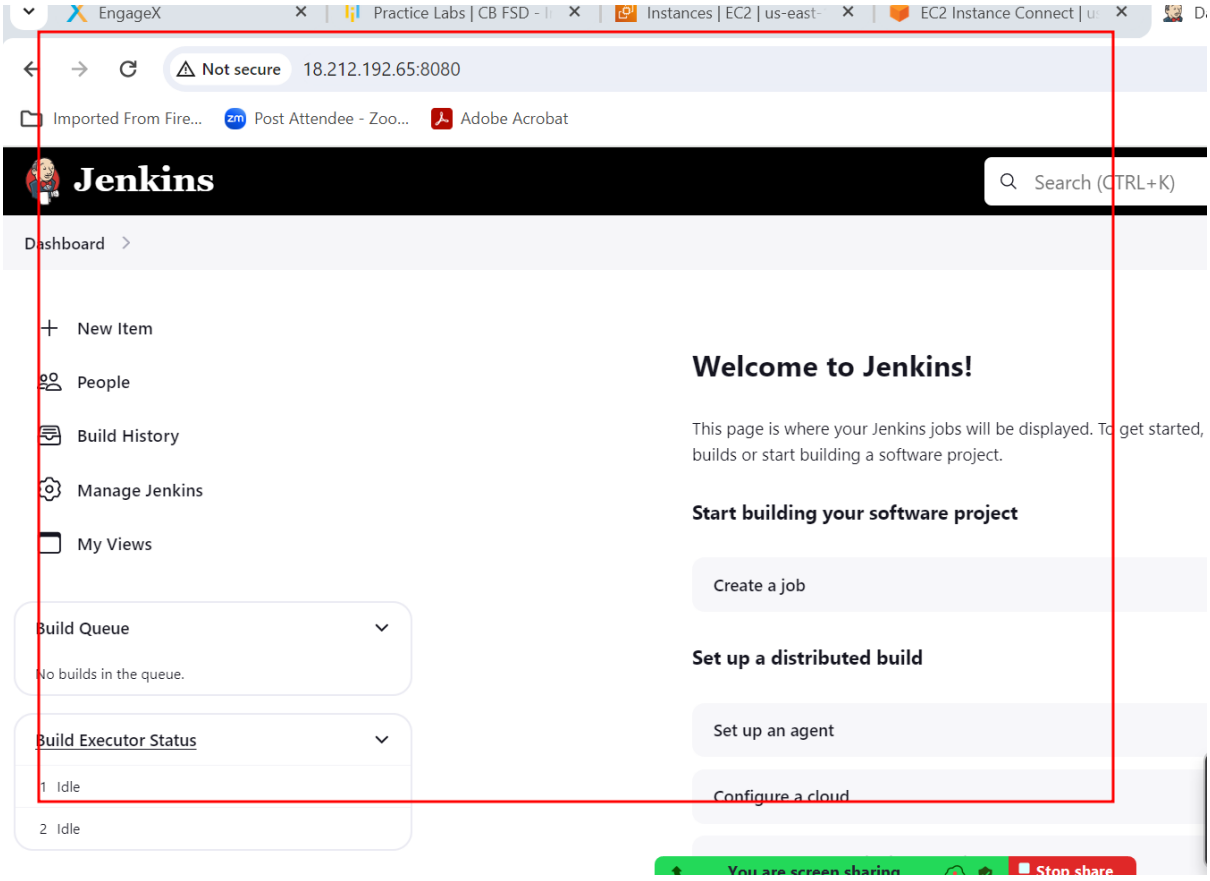
Please check your EC2 instance public Ip Address and open browser and use below as
http://publicIdAddress:8080




Not secure
18.212.192.65:8080/login?from=%2F
Post Attendee - Zoo...
Adobe Acrobat
Getting Started
Unlock Jenkins
To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:
/var/lib/jenkins/secrets/initialAdminPassword
Please copy the password from either location and paste it below.
Administrator password


aws
Services
Search
[Alt+S]
[ec2-user@ip-172-31-95-133 ~]$ sudo cat /var/lib/jenkins/secrets/initialAdminPassword
386a8593fa2344968686ae49ee0d11fc
[ec2-user@ip-172-31-95-133 ~]$


Not secure
18.212.192.65:8080
Post Attendee - Zoo...
Adobe Acrobat
Getting Started
Customize Jenkins
Plugins extend Jenkins with additional features to support many different needs.
Install suggested plugins
Install plugins the Jenkins community finds most useful.
Select plugins to install
Select and install plugins most suitable for your needs.


EngageX
Practice Labs | CB FSD -
Instances | EC2 | us-east-
EC2 Instance Connect |
Not secure
18.212.192.65:8080
Imported From Fire...
Post Attendee - Zoo...
Adobe Acrobat
Jenkins
Search (CTRL+K)
Dashboard
New Item
People
Build History
Manage Jenkins
My Views
Build Queue
No builds in the queue.
Build Executor Status
1 Idle
2 Idle
Welcome to Jenkins!
This page is where your Jenkins jobs will be displayed. To get started, builds or start building a software project.
Start building your software project
Create a job
Set up a distributed build
Set up an agent
Configure a cloud
You are screen sharing
Stop share