Title: Setting Up Jenkins in AWS

Introduction : Jenkins is an open-source tool that automates the building, testing, and deployment of software.

Using Jenkins on AWS allows for scalable CI/CD pipelines in the cloud, integrating with various AWS services.

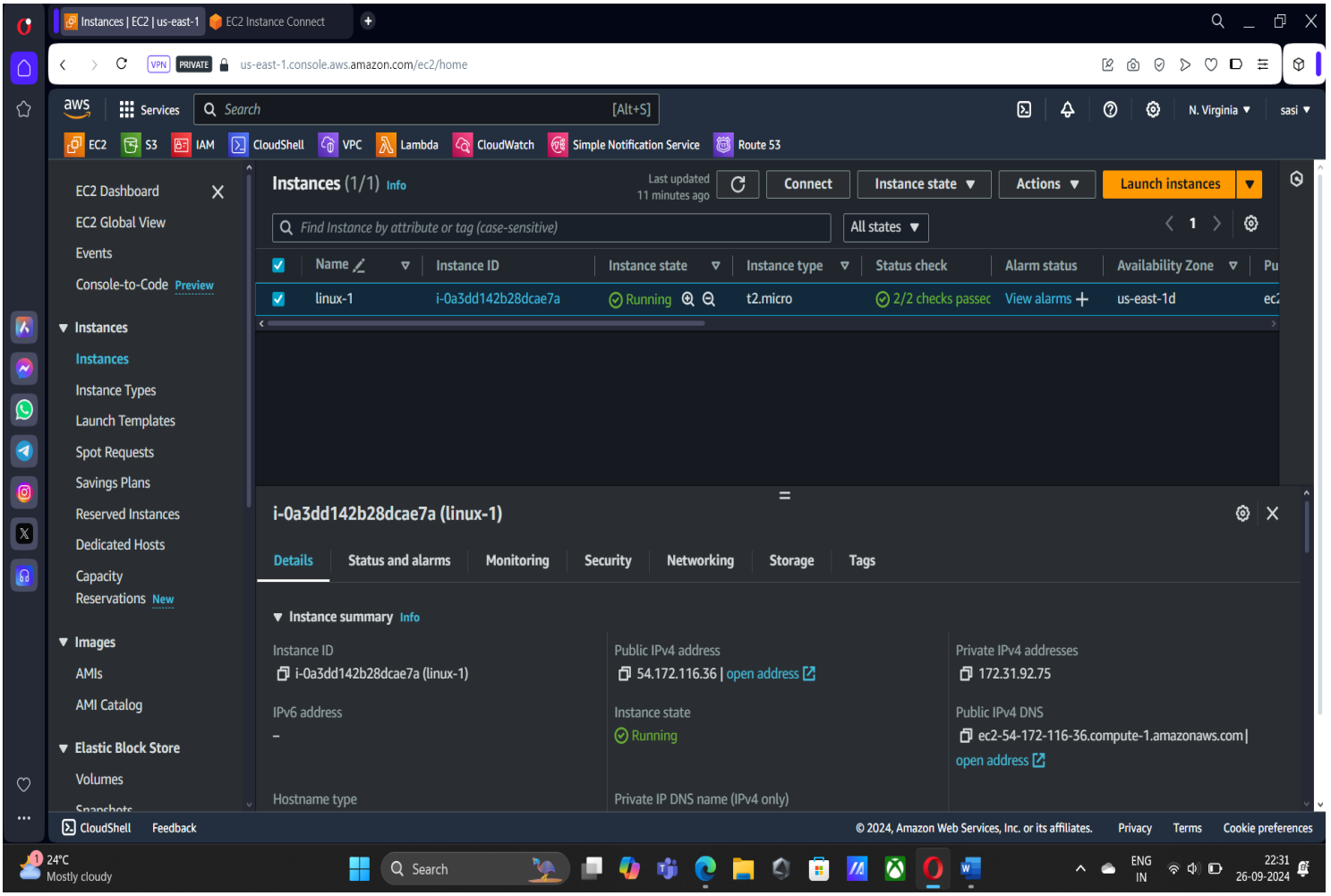
What You'll Need :

- An AWS account
- A computer with internet access
- Basic knowledge of SSH (optional, but helpful)

Step-by-Step Guide :

Step 1: Launch a Virtual Machine (EC2 Instance) on AWS

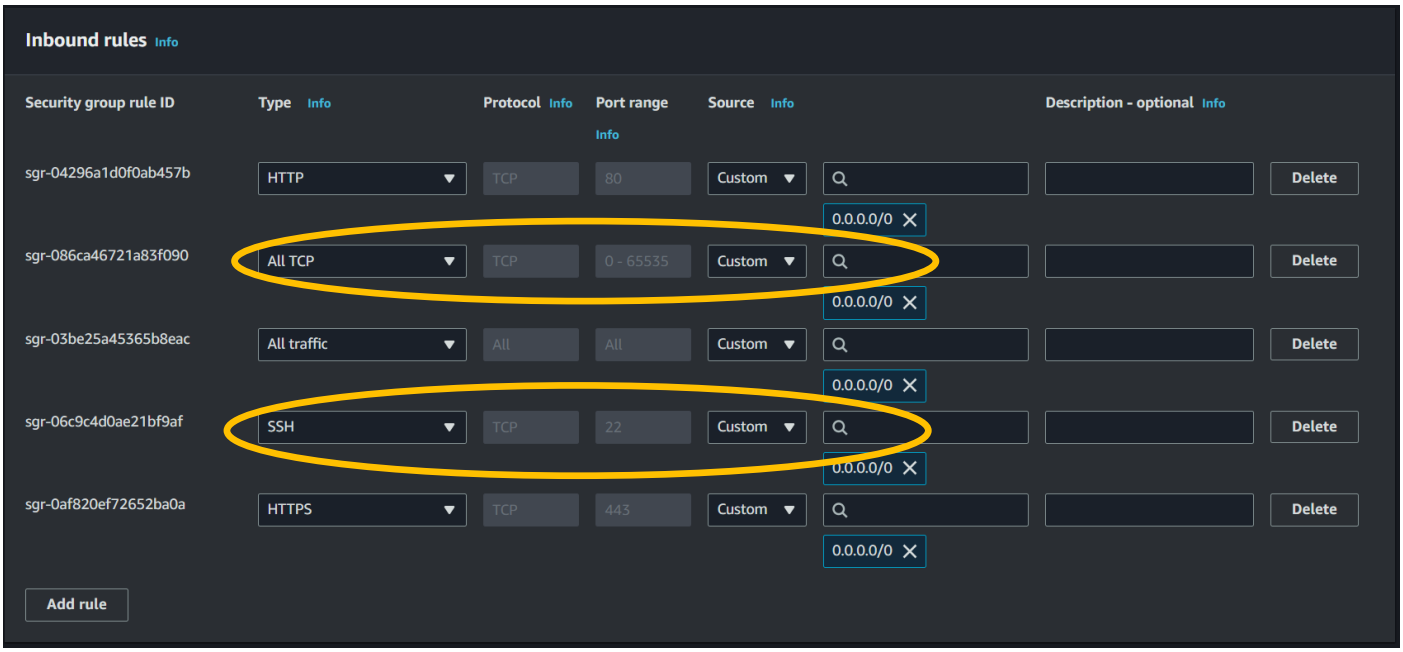
- Open the AWS Console and go to EC2.
- Click Launch Instance and choose Amazon Linux 2 (t2.micro is free-tier eligible).



Step 2: Configure Security Settings

Allow traffic on the following ports:

- Port 22 (SSH): To connect to your virtual machine.
- Port 8080: To access Jenkins from your browser.



You won't get 8080 allow all TCP(transfer control protocal)

Step 3 : Installing Jenkins .

Install Java : **Jenkins is built using Java**, so it needs Java to run.

Command : sudo yum install java-17 -y

Add the Jenkins repo using the following **command:**

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

these commands configure your system to safely install and update Jenkins from the official repository.

Import a key file from Jenkins-CI to enable installation from the package:

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

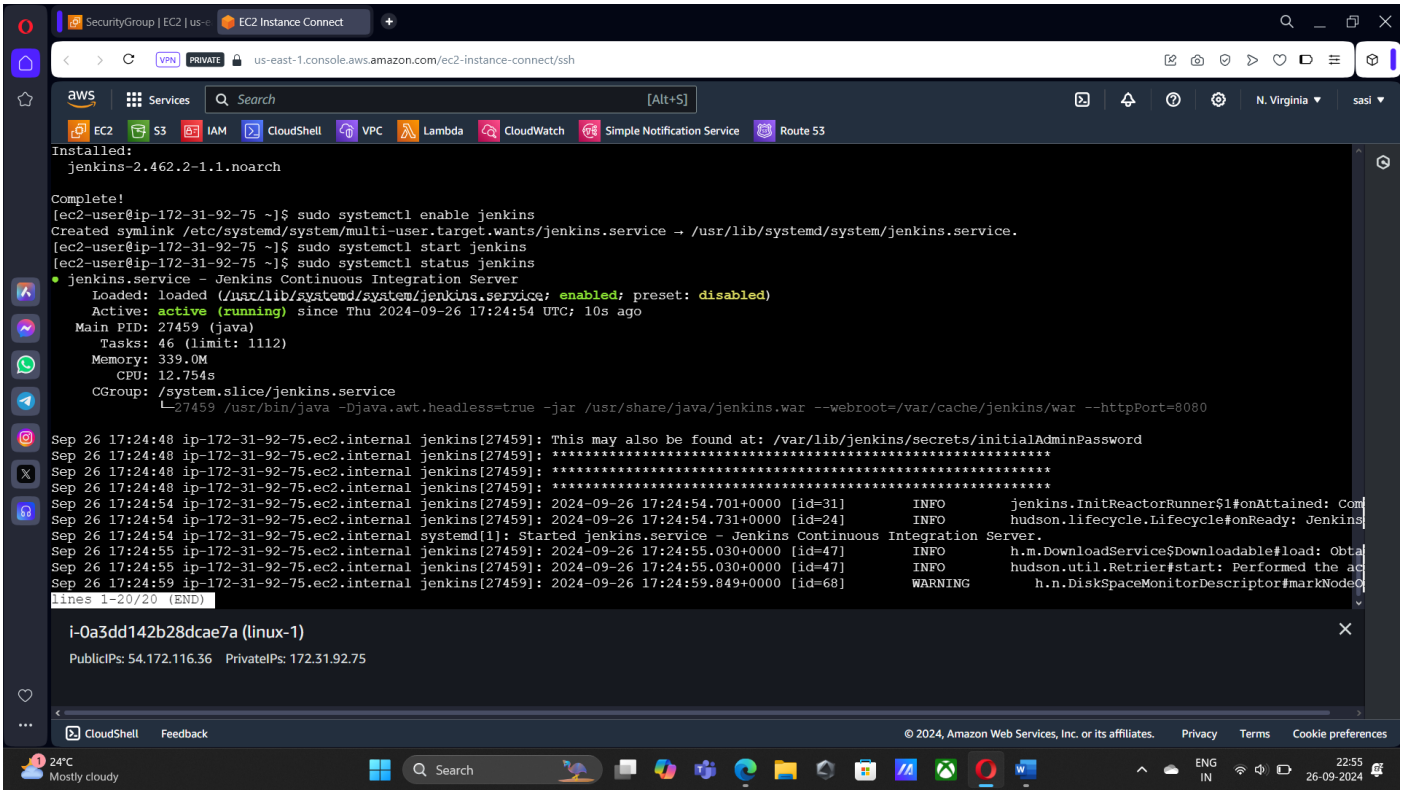
sudo yum upgrade use this to updates

Install Jenkins : **command** sudo yum install jenkins -y

Enable the Jenkins service to start at boot: **sudo systemctl enable Jenkins**

Start Jenkins as a service: **sudo systemctl start Jenkins**

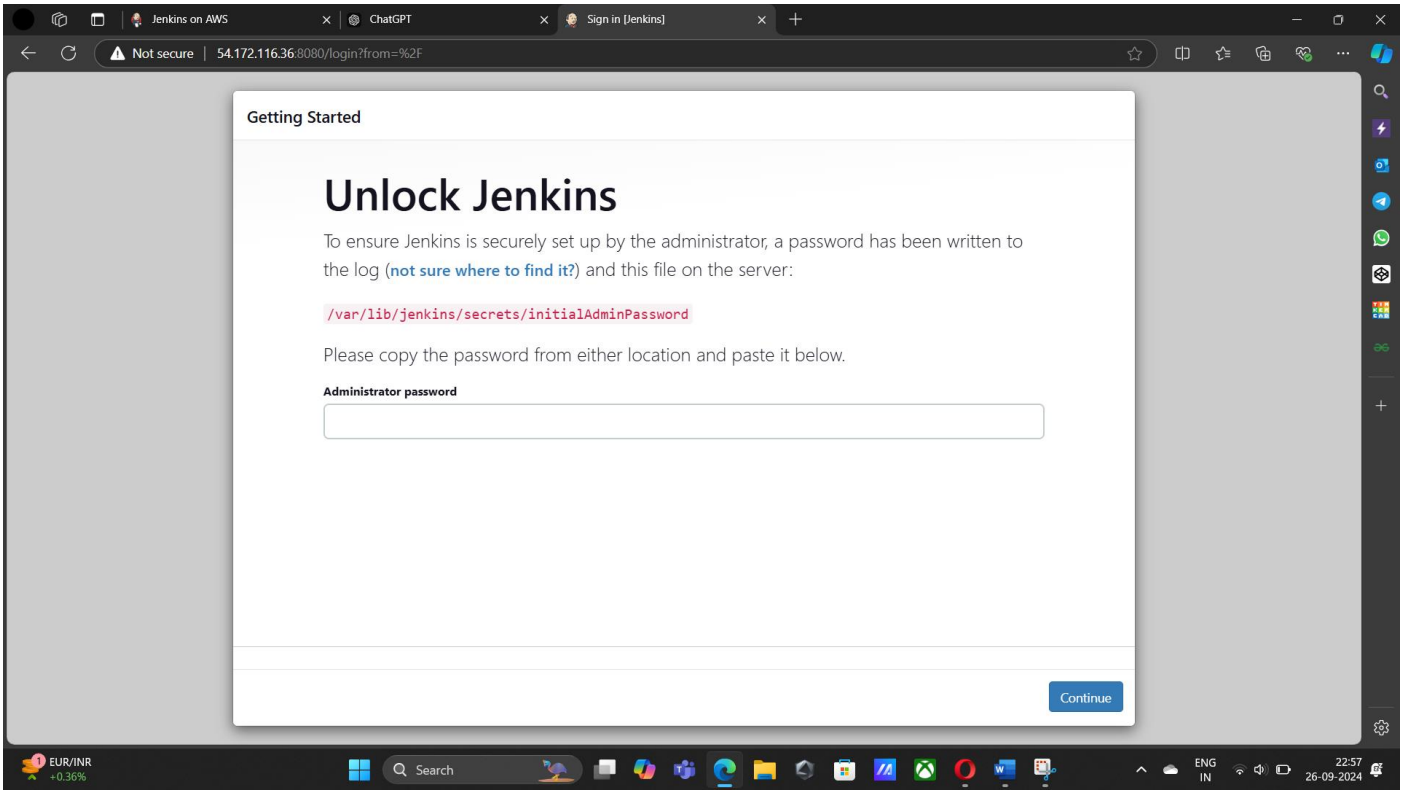
check the status of the Jenkins service using the **command:** sudo systemctl status jenkins



Jenkins is now installed and running on your EC2 instance. To configure Jenkins

Step 4 : Connect to http://<your_server_public_DNS>:8080 from your browser.

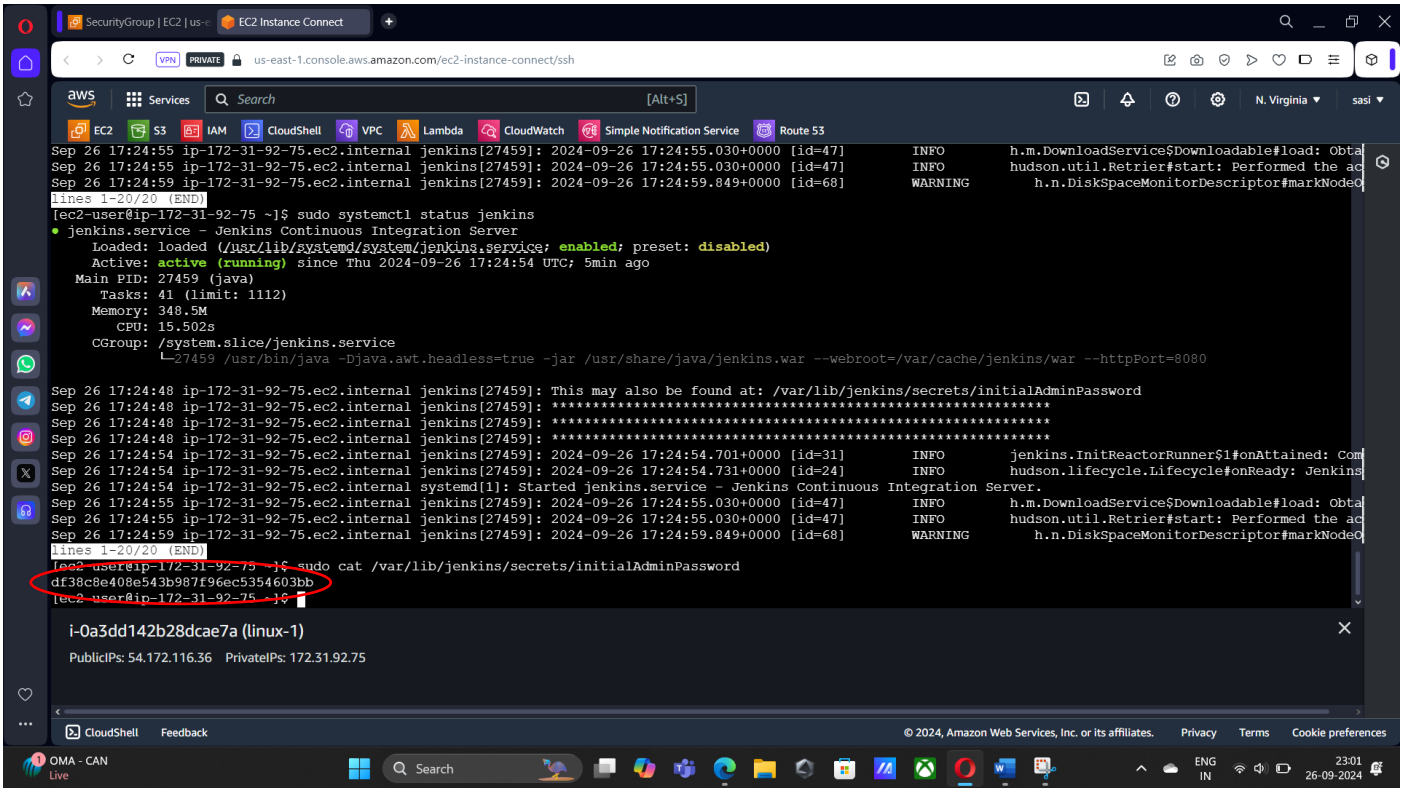
If there no DNS use IP address (public)



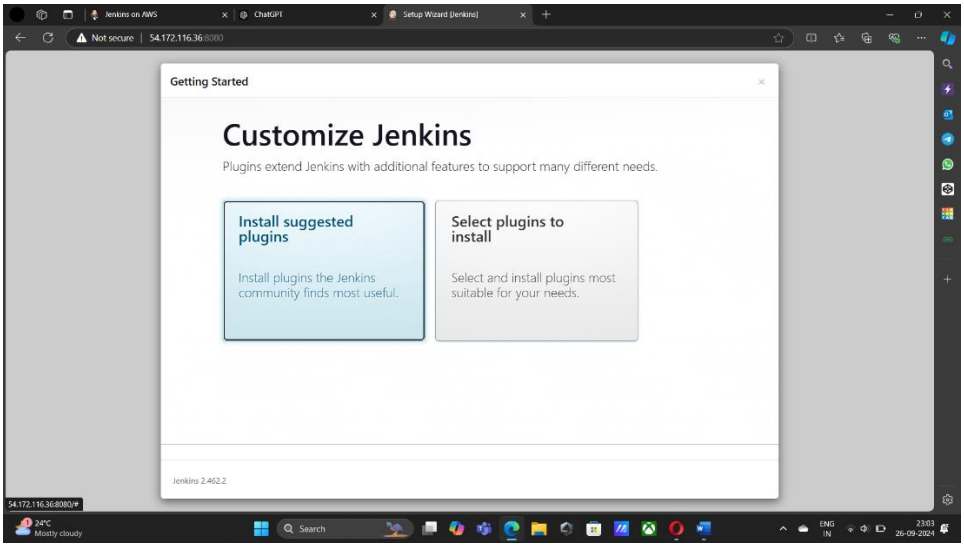
You will get the above page

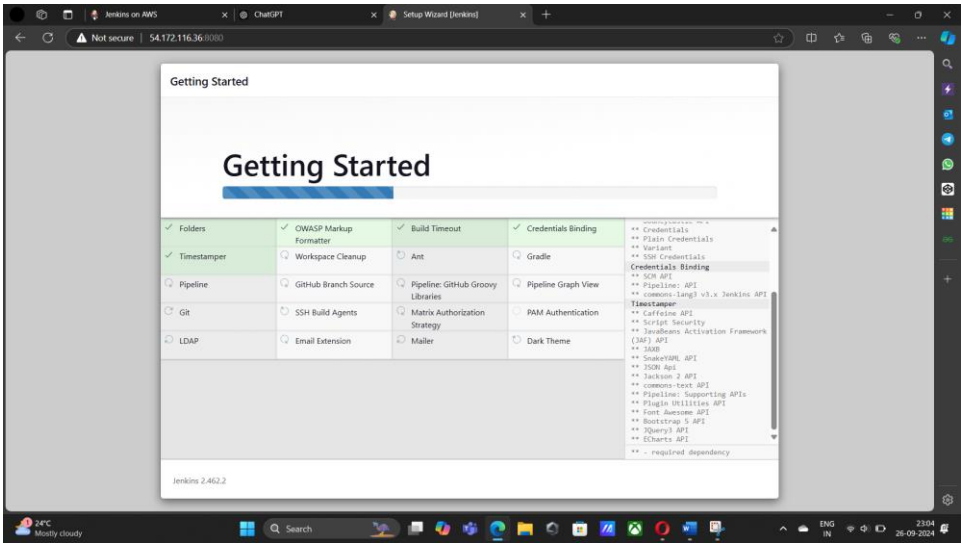
Note : administrator password to see that use the command :

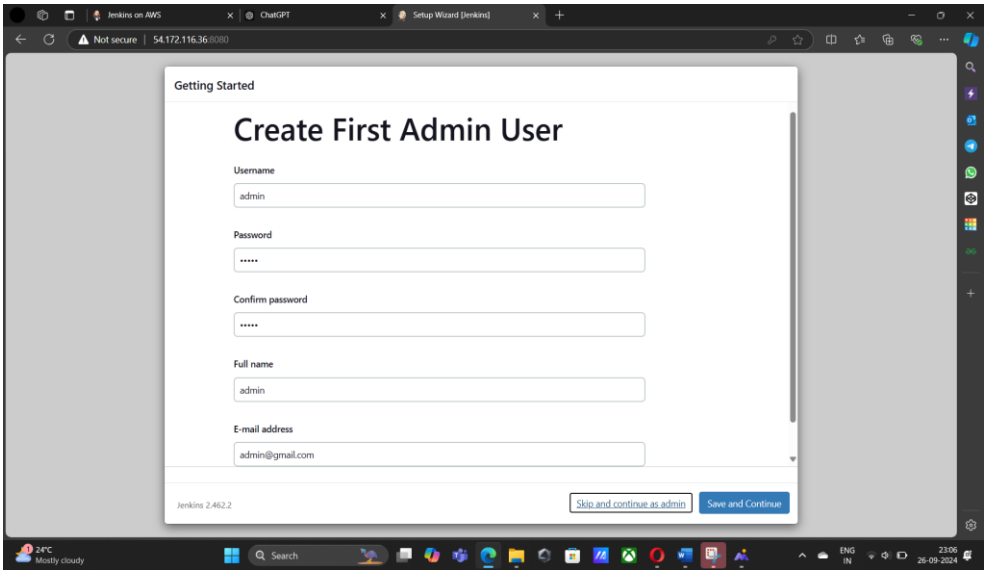
sudo cat /var/lib/jenkins/secrets/initialAdminPassword



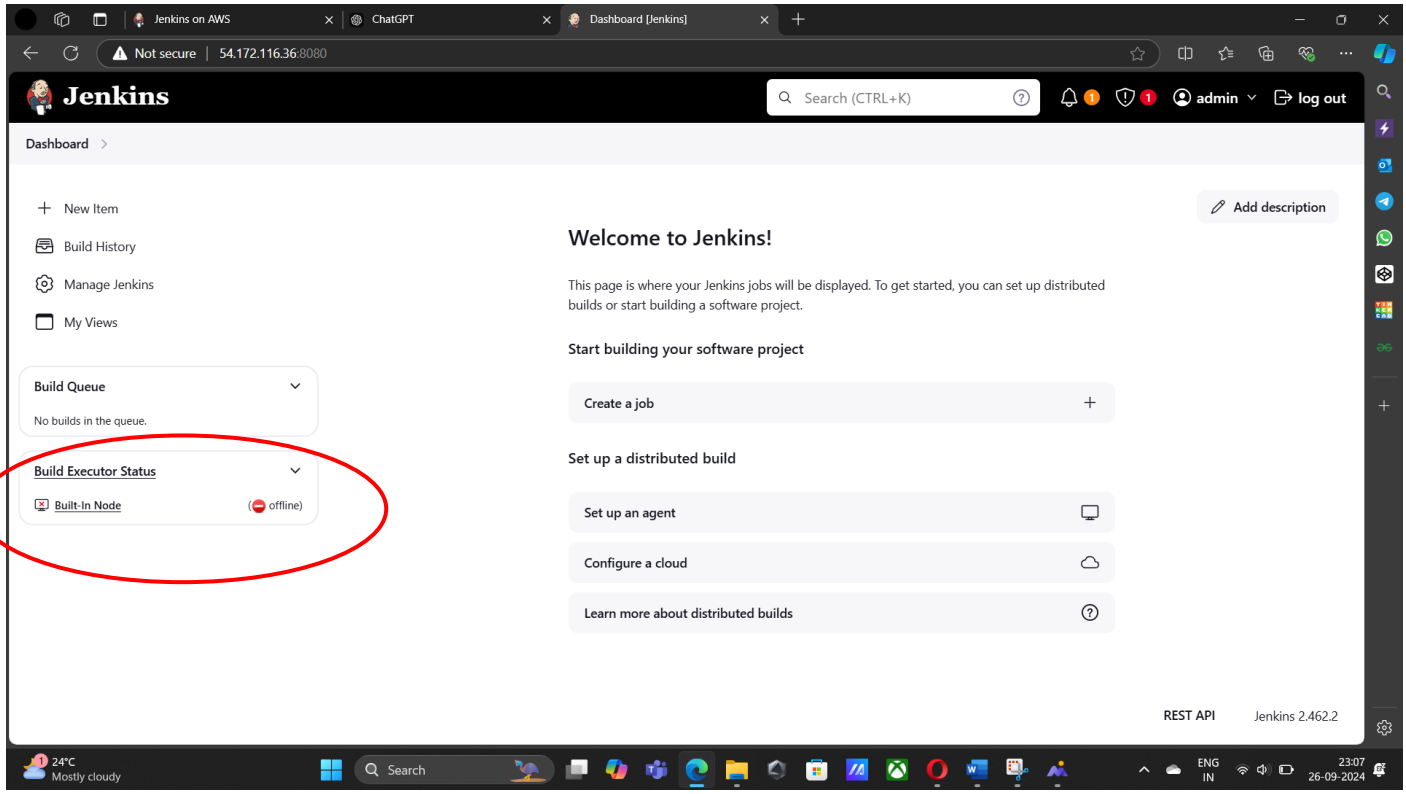
Copy that and paste it







Done with setting Jenkins server



As you can see that Built in node : this is because of less space or storage in your temp directory

So to resolve this issue follow below commands : switch to root user.

Stop the Jenkins server

Systemctl stop Jenkins

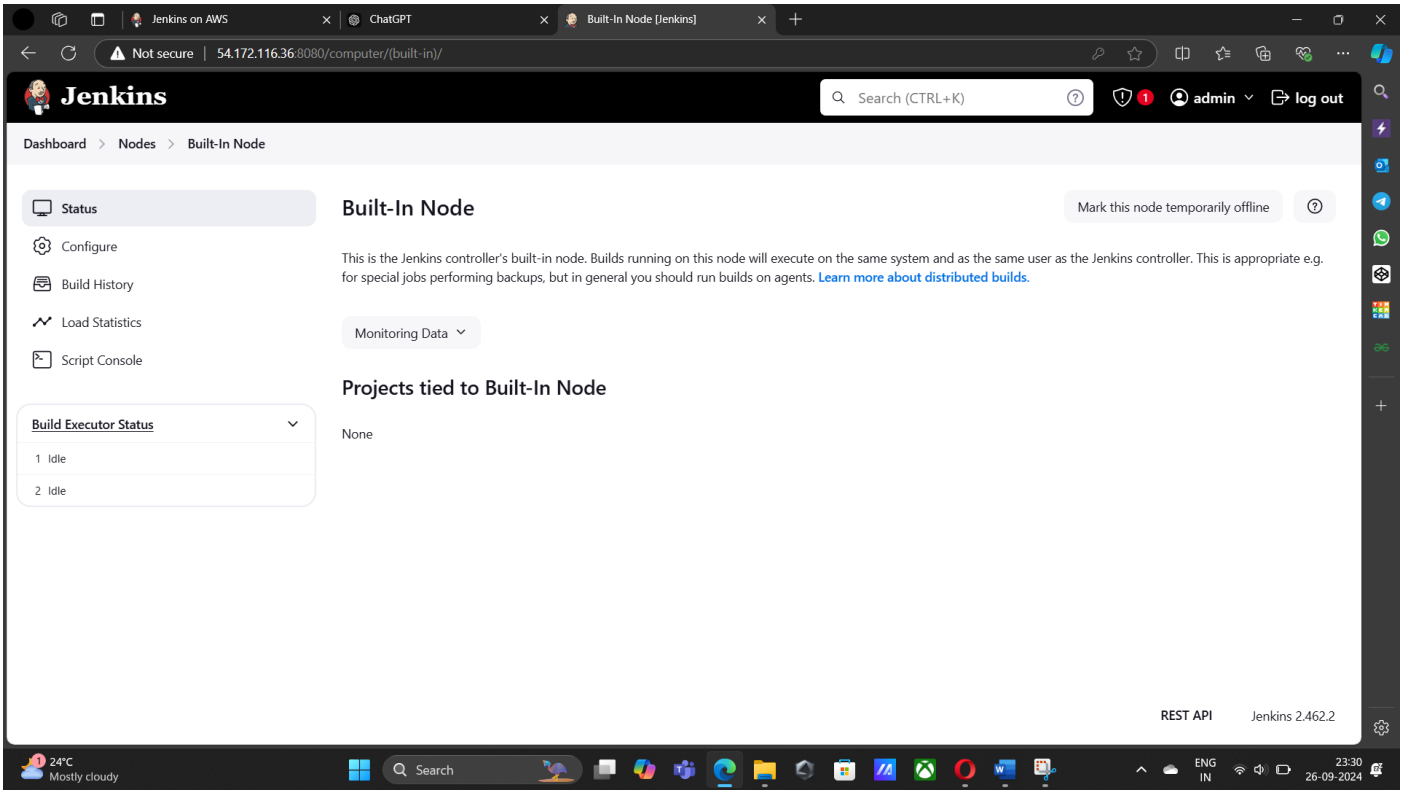
umount /tmp

nano /etc/fstab ADD tmpfs /tmp tmpfs defaults,size=2G 0 0

mount /tmp

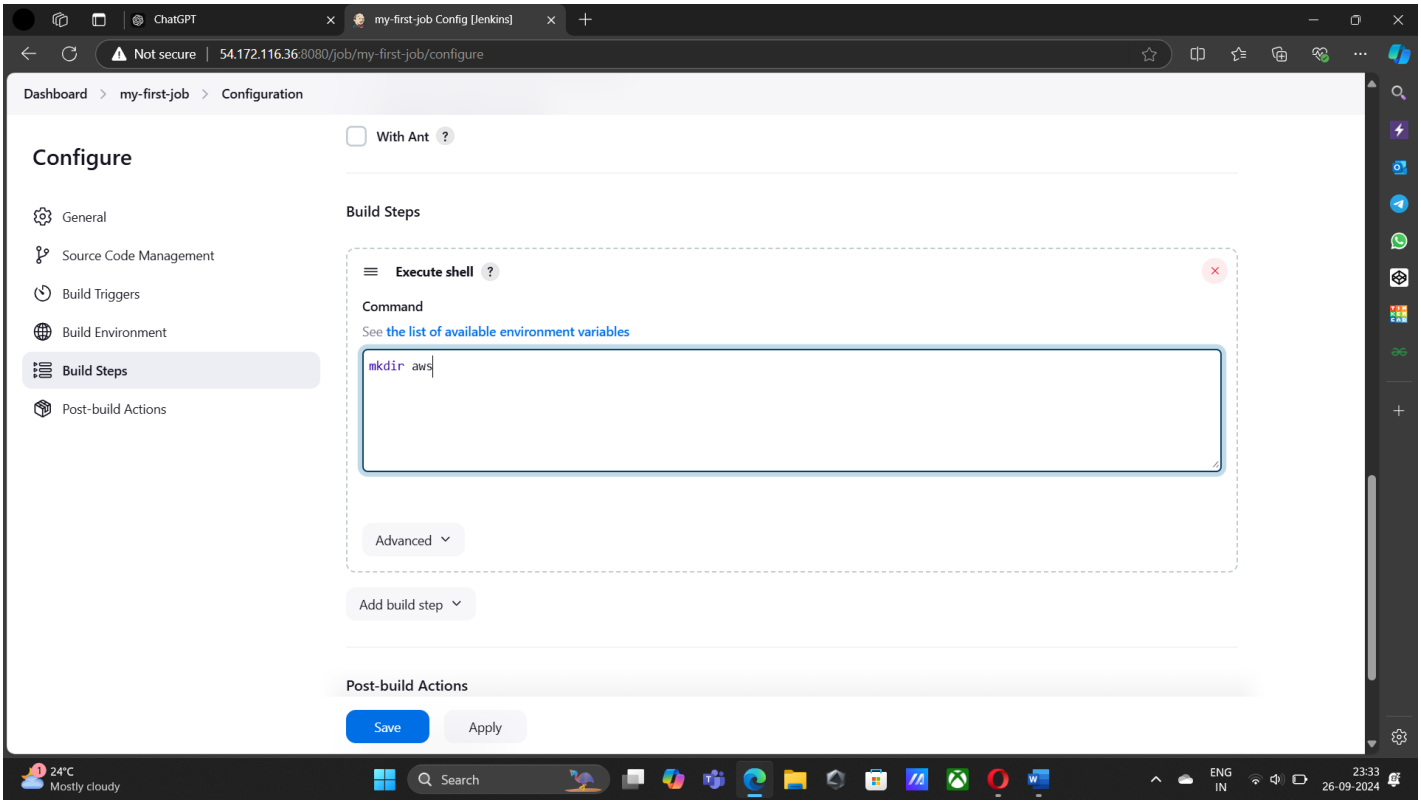
then start Jenkins systemctl start Jenkins

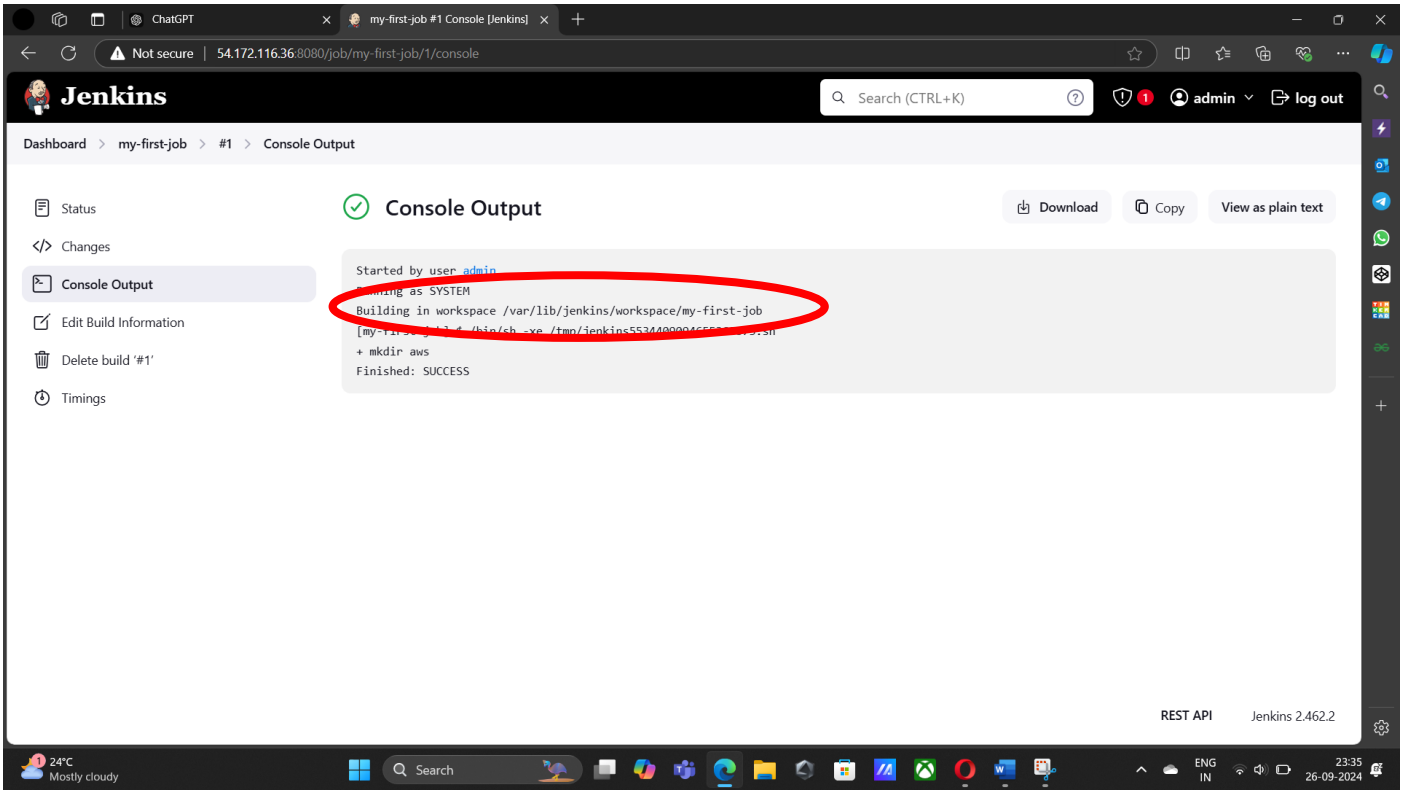
Now check the Jenkins



Now we can build Jobs in Jenkins

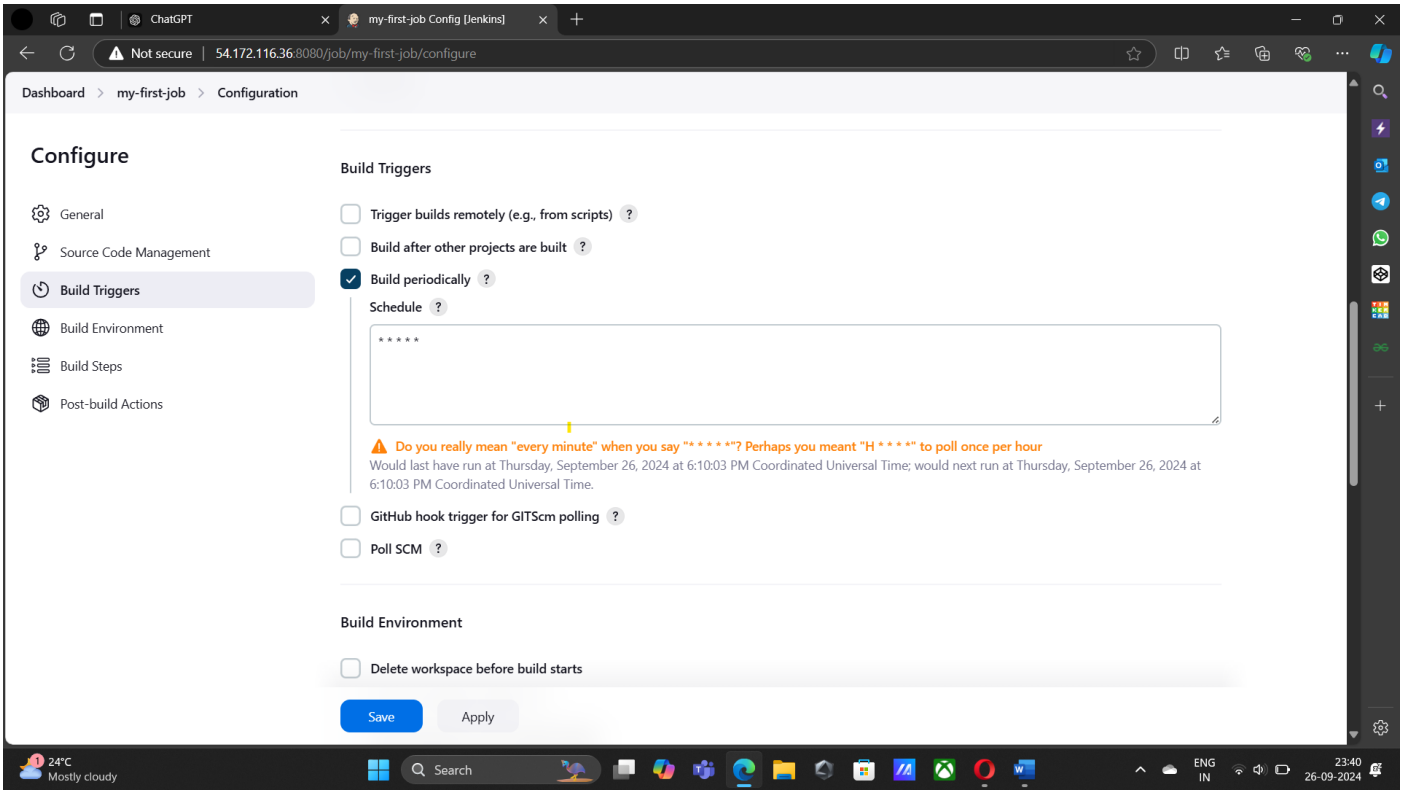
➔ Using pipeline job



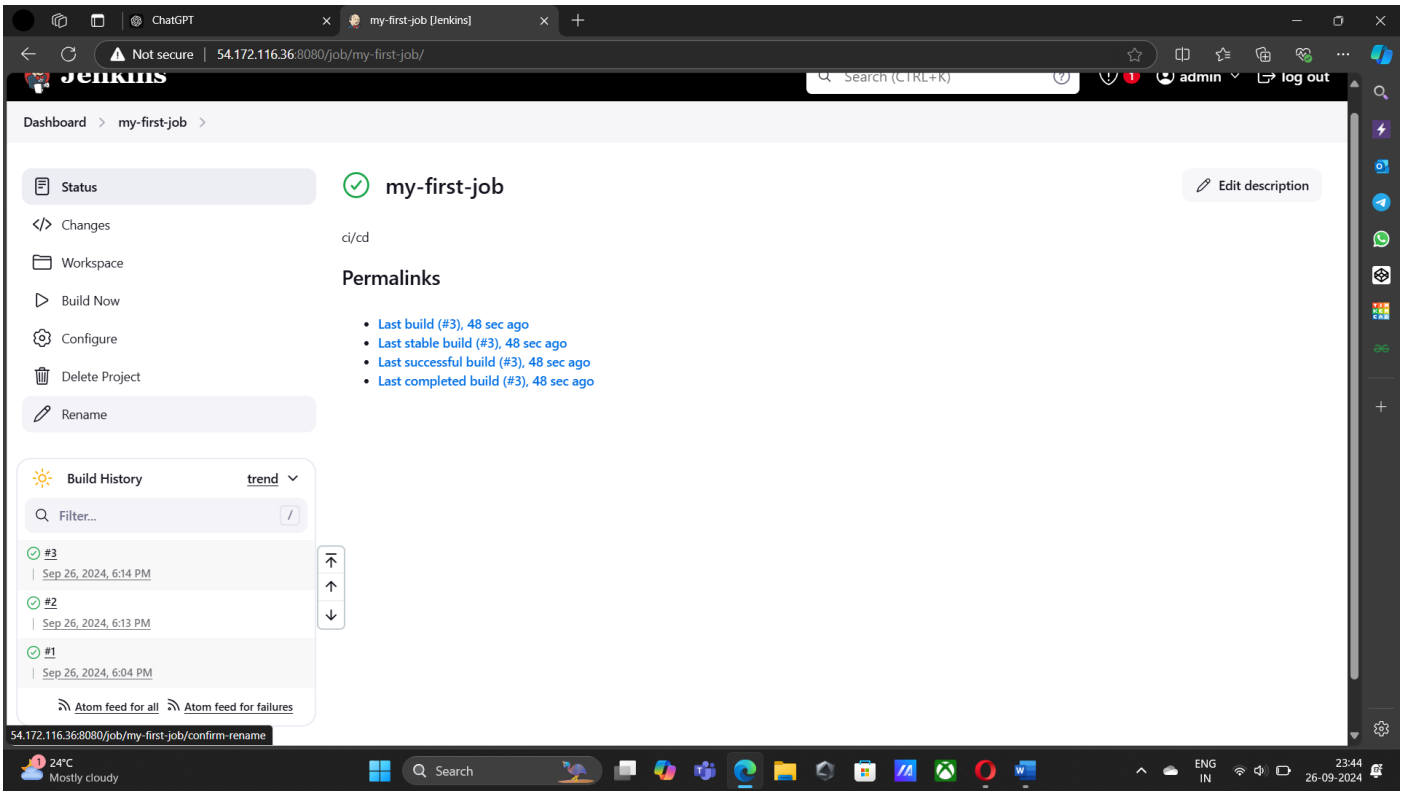


Location of the directory

Now using Build Periodically



For every min it going to execute the command .



➔ Using poll SCM .

We can trigger Jenkins to do particular task . to build a maven project make sure to attach maven in tools .

When ever the new updates are given to git hub it will build the target file .