Jenkins Installation Steps:

1. we will create a Virtual Machine of OS linux

> A service called is EC2 on AWS

2. We will connect to the VM from our laptop -> OS

> via browser

> via SSH using your laptop

3. Install git and java 11 on the VM by executing below commands

# sudo su -

# yum install git -y

# sudo amazon-linux-extras install java-openjdk11 -y

4. Install jenkins on the VM

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

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

yum install jenkins -y

systemctl start jenkins

5. Connect to jenkisn Dashboard:

go to your browser and type publicIP:8080

go to terminal and type the below command:

cat /var/lib/jenkins/secrets/initialAdminPassword

copy the passowrd displayed ont he termianl.

Copy the password and paste in the browser (jenkins)

Click on continue

Click on Jenkins suggested plugin tab(on left side)

On the next page

Username: admin

Password : admin

Retype password: admin

Email: admin@gmail.com

Click on continue

Click on finish

You will be on the jenkins dashboard

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Jenkins + maven integration:

Jenkins--> Manage Jenkins-->Tools

Under GIT==> leave it same

Under maven ==> lets install it automatically

Type name = mymaven and check the install automatically box.

Save the changes

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Jenkins + Windows Server

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Step 1: Go to Manage Jenkins---> CONFIGURE GLOBAL SECURITY --> Scroll down to AGENTS-->select RANDOM radiobutton--> Save

Step 2: Go to Manage Jenkins--->Nodes --> New Node

Select New Node--> give name as Winslave--> select radio button permanamet Agent

Name : winslave

Description: give windows 10 machine

==> # of executors = 1 ==> means number of jobs that we want to run on this slave node. Let it be 1 for now

===> Remote root directory ==> C:\jenkinsdir

Location of a directory folder on your windows machine , so that jenkins can create a workspace folder and store all the files. As we have seen earlier while executiong jobs.

For this --> got to C drive and create an emapty folder.

C:\jenkinsdir

====> Label : win\_slave ==> this is like a tag to slave machine. This is how we will identify the slave machine--> remeber this

===> Usage:

Select 2nd option: Only build jobs with label expressionmatching the job :

This means for which ever job we will give label as win\_slave that job only will run on this job.

===> Launch Method : select option : Launch agent by connecting to master.

Scroll down

Add tools

Add git path as C:\Program Files\Git\cmd\git.exe

SAVE the job.

Now go to win\_slave ==> download the agent.jar file and put it in your jenkinsdir folder.

Copy the path and change the public ip in below path

java -jar agent.jar -jnlpUrl http://3.139.60.71:8080/computer/winslave/slave-agent.jnlp -secret 61e8e20badd531b48caeffac8d686f182eb2d77a1c303ee39c5db9d00117c0be -workDir "C:\jenkinsdir"

Go to bash and start jenkins, refresh instance

Go to cmd prompt

change to cd c:\jenkinsdir

copy the above jenkins agent path

System will get connected.

CODE FOR Jenkins-selenium-Pipeline

pipeline{

tools{

maven 'mymaven'

}

agent {label 'win\_slave'}

stages{

stage('clone the repo')

{

steps{

git 'https://github.com/Sonal0409/ATE-Selenium-Jenkins.git'

}

}

stage('Seleniumtest')

{

steps{

sh 'mvn test'

}

}

}

}

code for Jenkins-maven-Pipeline

pipeline{

tools{

maven 'mymaven'

}

agent any // node where we have to run pipeline

stages{

stage('Clone the repo')

{

steps{

git 'https://github.com/Sonal0409/DevOpsCodeDemo.git'//useing for sample code

}

}

stage('CompileCode'){

steps{

sh 'mvn compile'

}

}

stage('TestCode'){

steps{

sh 'mvn test'

}

}

stage('PackgeCode'){

steps{

sh 'mvn package'

}

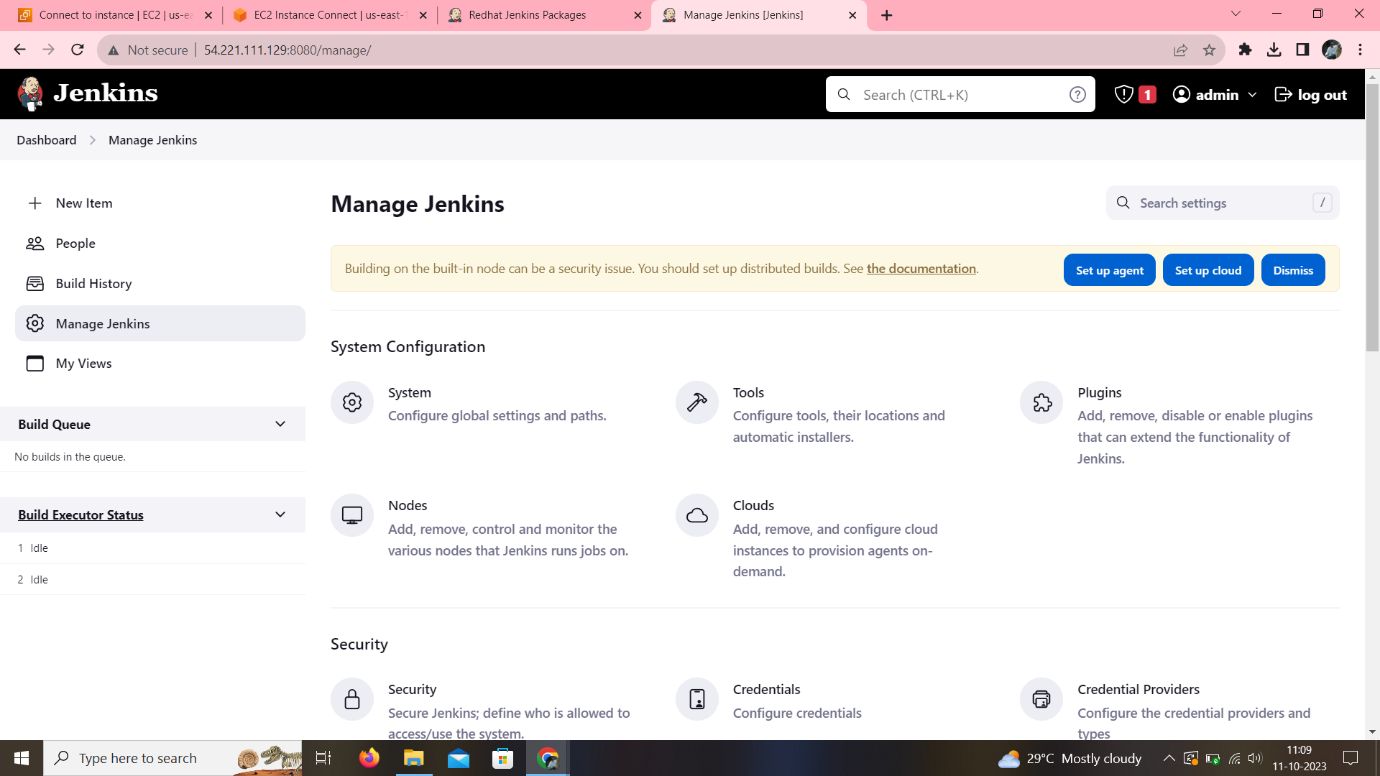
}

}

}

OUTPUTS:

A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

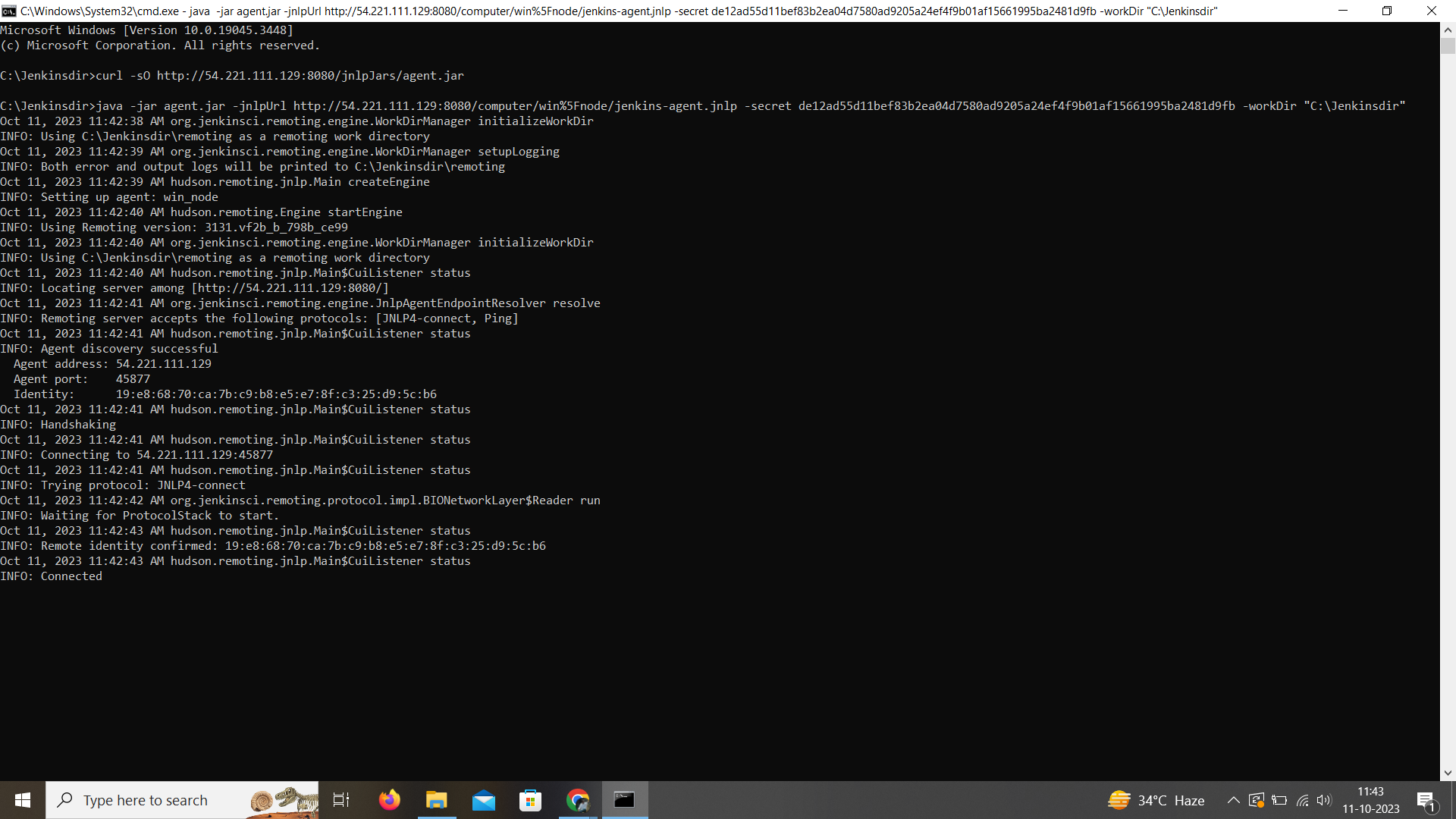
Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA computer screen with a white screen

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated