

To run Jenkins via a Docker container on Amazon EC2 Linux, you can follow these steps:

1.Update the system: Connect to your EC2 instance and update the system packages by running the following commands:

```
sudo yum update -y
```

2.Install Docker: Install Docker on your EC2 instance by executing the following commands:

```
sudo yum install -y docker
```

```
sudo systemctl start docker
```

```
sudo systemctl enable docker
```

3.Pull the Jenkins image: Pull the Jenkins Docker image from the official Docker repository using the following command:

```
sudo docker pull jenkins/jenkins
```

4.Start the Jenkins container: Run the Jenkins container with the desired configurations using the following command:

```
sudo docker run -d -p 8080:8080 -p 50000:50000 -v jenkins_home:/var/jenkins_home --name jenkins jenkins/jenkins
```

this command will start the Jenkins container, map port 8080 of the container to port 8080 of your EC2 instance, map port 50000 for Jenkins agent communication, and create a persistent volume named `jenkins_home` to store Jenkins data

5.Access Jenkins: Once the container is up and running, you can access Jenkins by opening a web browser and entering the following URL

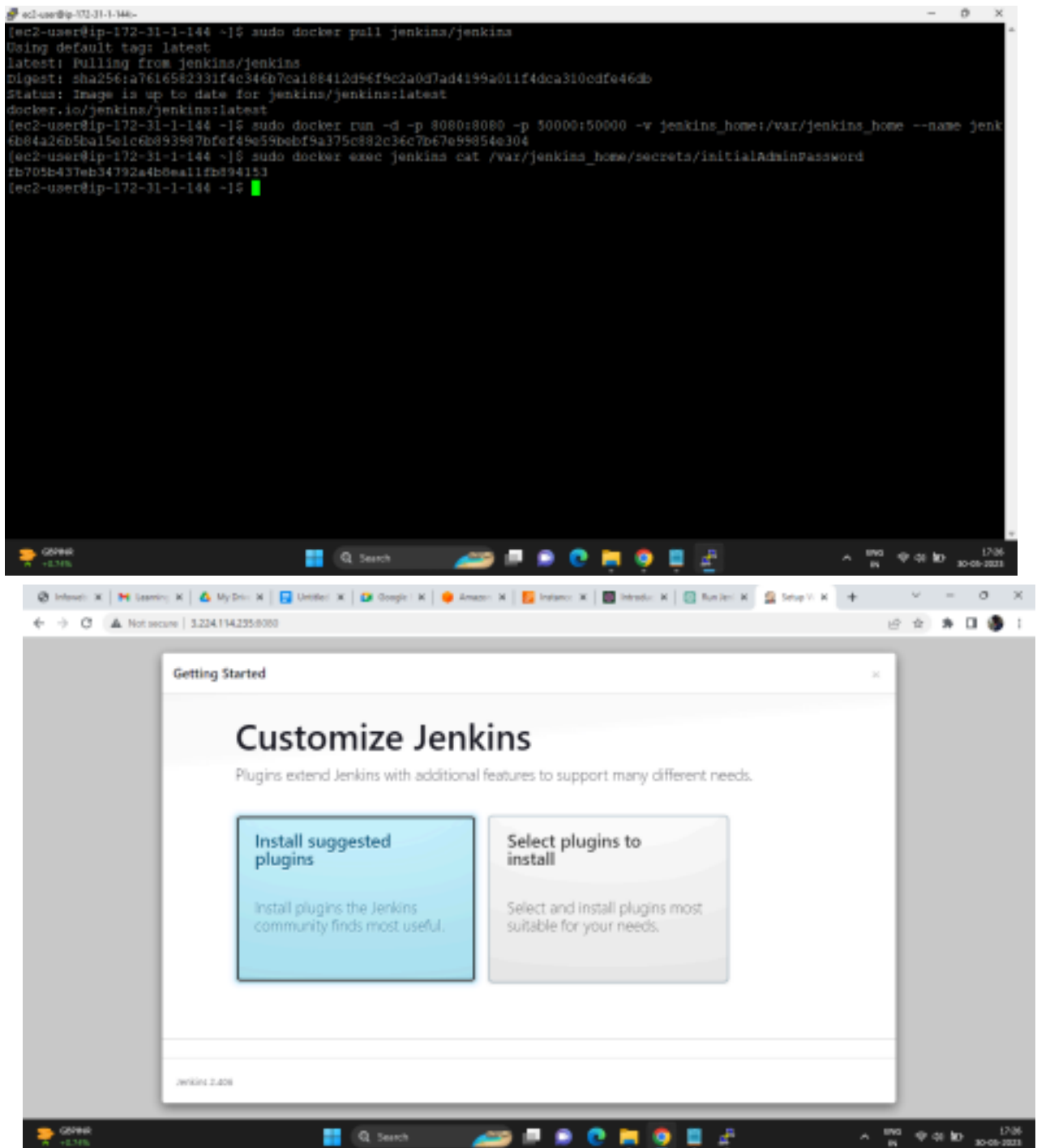
```
http://<EC2_Instance_Public_IP>:8080
```

Replace `<EC2_Instance_Public_IP>` with the public IP address of your EC2 instance.

6.Unlock Jenkins: During the initial setup, Jenkins will provide a setup wizard and display a path to the initial administrator password. To unlock Jenkins, you need to SSH into your EC2 instance and run the following command:

```
sudo docker exec jenkins cat /var/jenkins_home/secrets/initialAdminPassword
```

Copy the generated password and paste it into the Jenkins web interface to proceed with the setup.



7. The page will appear like the above, then we can proceed with installed suggested plugins

8. Please use jenkins with volume attached so that we can restart it when it is required

```
sudo docker run -d --name jenkins -p 8080:8080 -p 50000:50000 -v  
jenkins_home:/var/jenkins_home jenkins/jenkins:its
```

9. To configure jenkins with aws

Step 1: Install AWS CLI in Jenkins Container

```
sudo docker exec -u 0 -it jenkins bash
```

```
apt update && apt install -y awscli
```

Step 2: Configure AWS Credentials

```
aws configure
```

10. Also go to the global credentials and add the aws access key and secret key there as well