Install Jenkins on Ubuntu 22.04

Introduction

Jenkins is a robust tool that enables continuous integration and continuous project delivery. Any type of build or continuous integration can be handled by this free source program. Jenkins can be integrated with a variety of deployment and testing tools. We will go over how to use Jenkins to continuously develop and test your software projects in this lesson.

Step 1 — Installing Jenkins

```
wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io.key |sudo gpg --dearmor -o /usr/share/keyrings/jenkins.gpg
```

```
sudo sh -c 'echo deb [signed-by=/usr/share/keyrings/jenkins.gpg] http://pkg.jenkins.io/debian-stable binary/ > /etc/apt/sources.list.d/jenkins.list'
```

```
sudo apt update
sudo apt install jenkins
```

We'll launch the Jenkins server now that Jenkins and its dependencies are installed.

Step 2 — Starting Jenkins

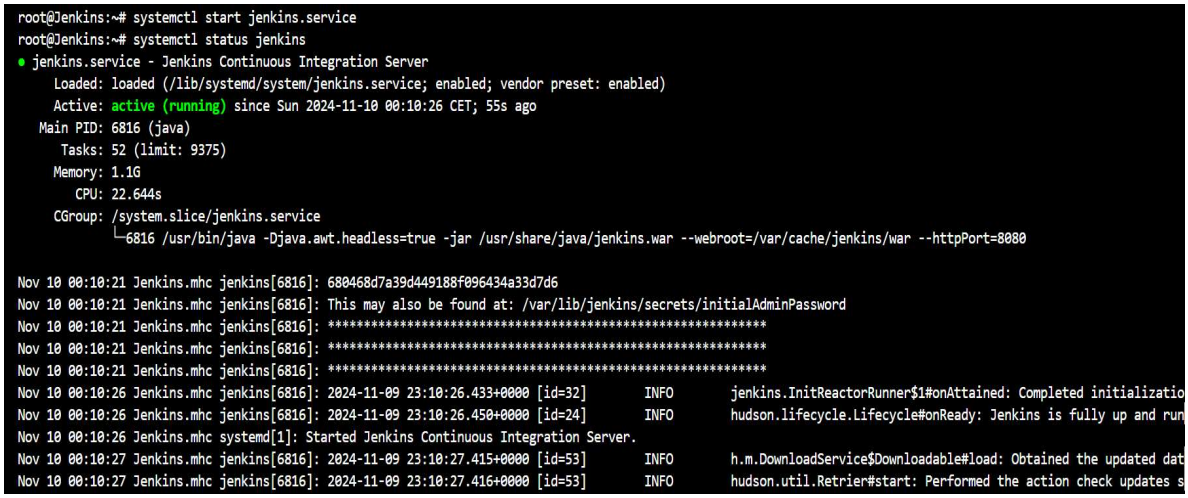
Use systemctl to launch Jenkins now that it has been installed.

```
sudo systemctl status jenkins
```

To confirm that Jenkins launched correctly, we'll use the status command as systemctl doesn't show status output:

```
sudo systemctl status jenkins
```

If all went according to plan, the status output's first line indicates that the service is operational and set up to launch at boot:



Step 3 — Opening the Firewall

To configure a UFW firewall, go to Initial Server Setup for Ubuntu 22.04, Step 4 - Configuring a Basic Firewall. Jenkins operates on port 8080 by default. Utilize ufw to open that port:

```
sudo ufw allow 8080
```

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Note: If the firewall is not active, the subsequent commands will permit OpenSSH and activate the firewall:

```
sudo ufw allow OpenSSH
sudo ufw enable
```

Verify the status of ufw to ensure the new rules are in place:

```
sudo ufw status
```

You will observe that access to port 8080 is permitted from any location:

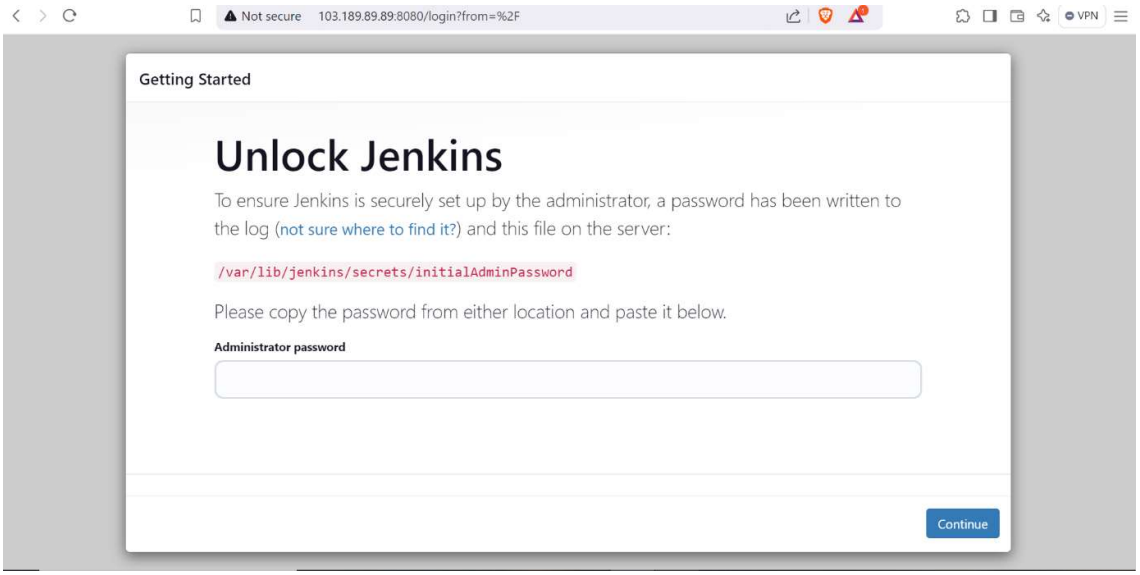
```
root@Jenkins:~# ufw status
Status: active

To                         Action      From
--                         ------      ----
8080                       ALLOW       Anywhere
OpenSSH                    ALLOW       Anywhere
8080 (v6)                  ALLOW       Anywhere (v6)
OpenSSH (v6)               ALLOW       Anywhere (v6)
```

After installing Jenkins and configuring a firewall, you have finished the installation phase and can move on to setting up Jenkins.

Step 4 — Setting Up Jenkins

To configure your installation, access Jenkins on its standard port, 8080, by using your server's domain name or IP address: http://your_server_ip_or_domain:8080

You will see the Unlock Jenkins screen, showing where to find the initial password:



In the terminal window, utilize the cat command to show the password:

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

Copy the alphanumeric password of 32 characters from the terminal and paste it into the Administrator password box, then click Continue.

```
root@Jenkins:~# cat /var/lib/jenkins/secrets/initialAdminPassword
680468d7a39d449188f096434a33d7d6
```

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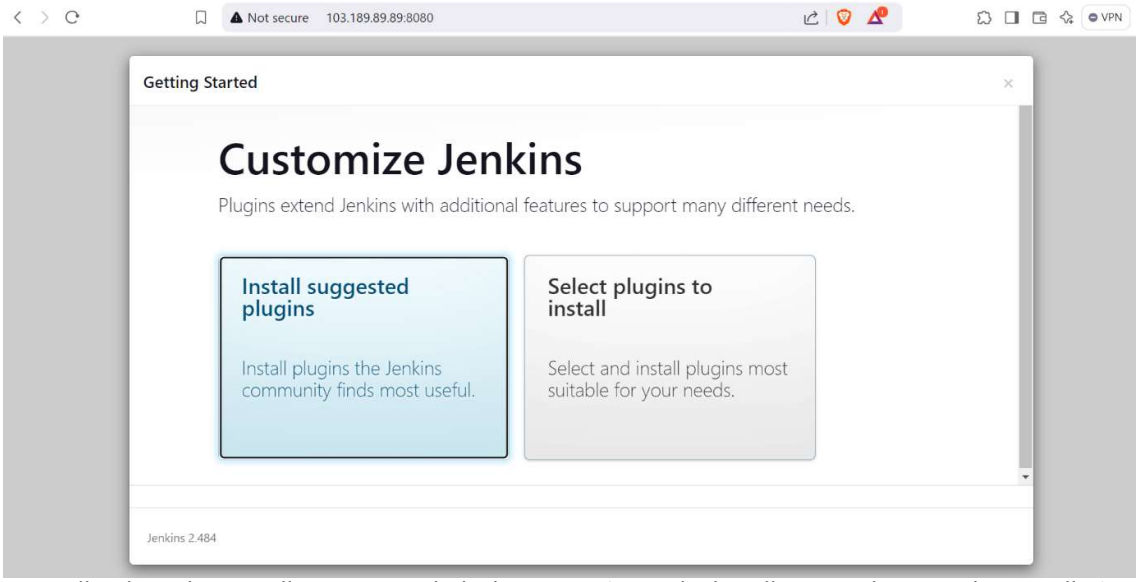
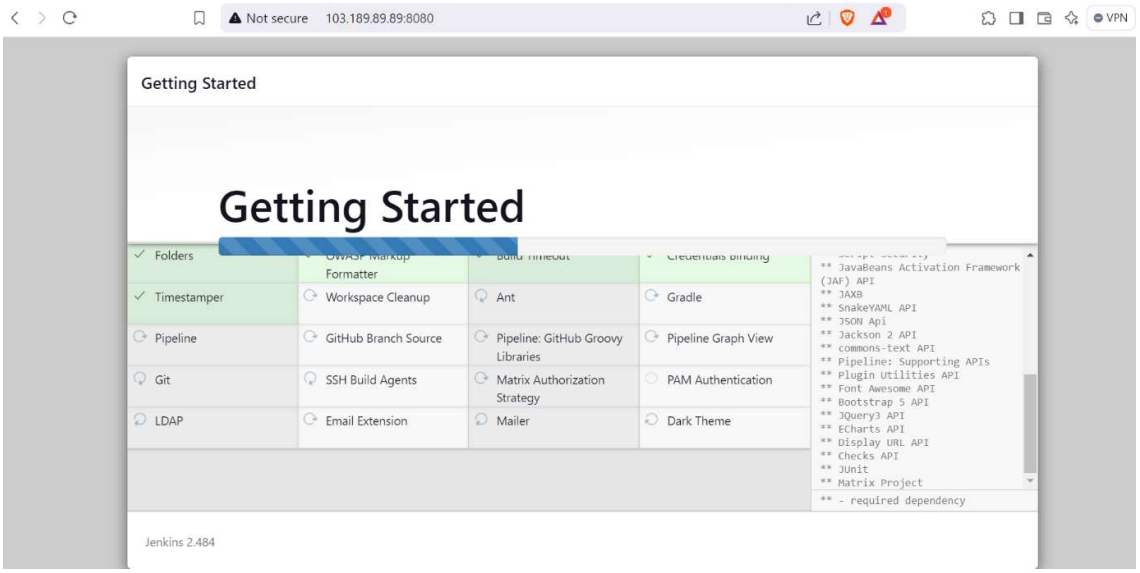
The following screen offers the choice to install recommended plugins or to choose particular plugins:



We will select the Install recommended plugins option, which will promptly start the installation process.



Once the installation finishes, you'll be asked to create the initial administrative user. You can bypass this step and proceed as admin with the initial password provided earlier, but we will take a moment to set up the user.

Provide your username and password and User name accordingly:

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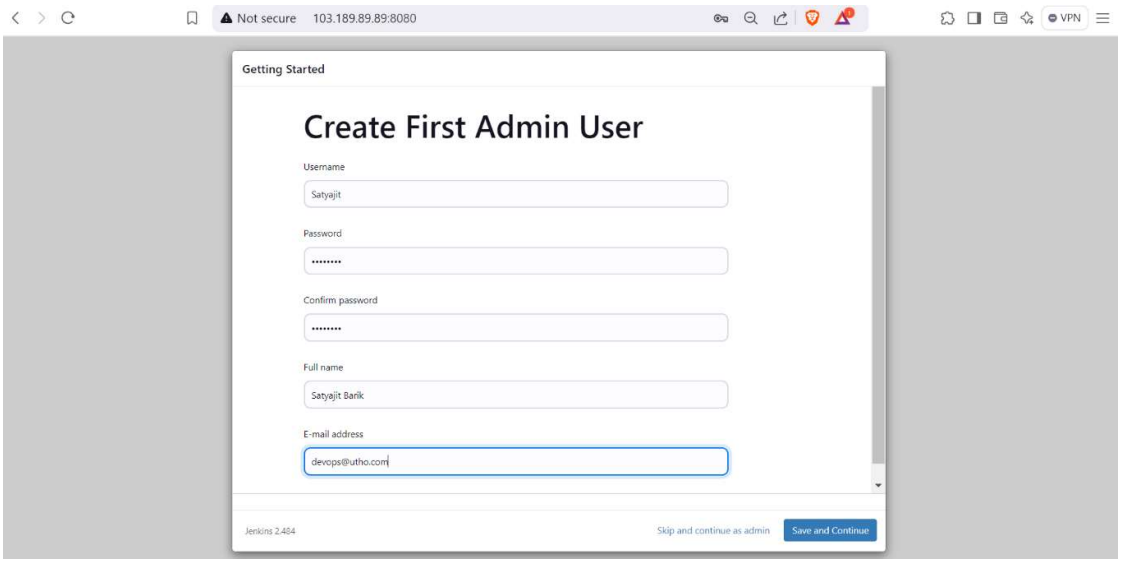
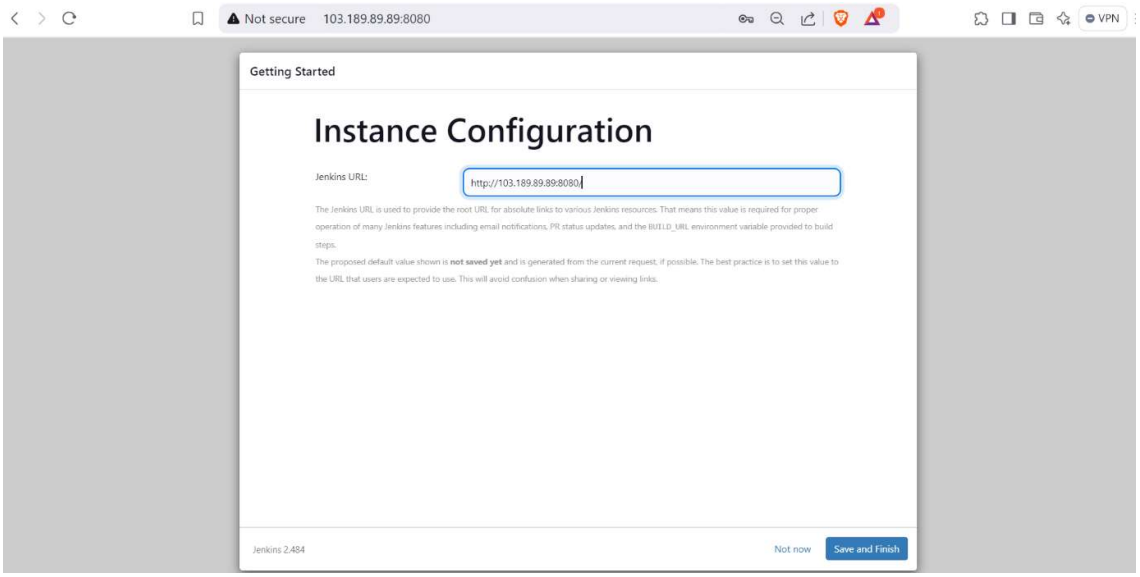
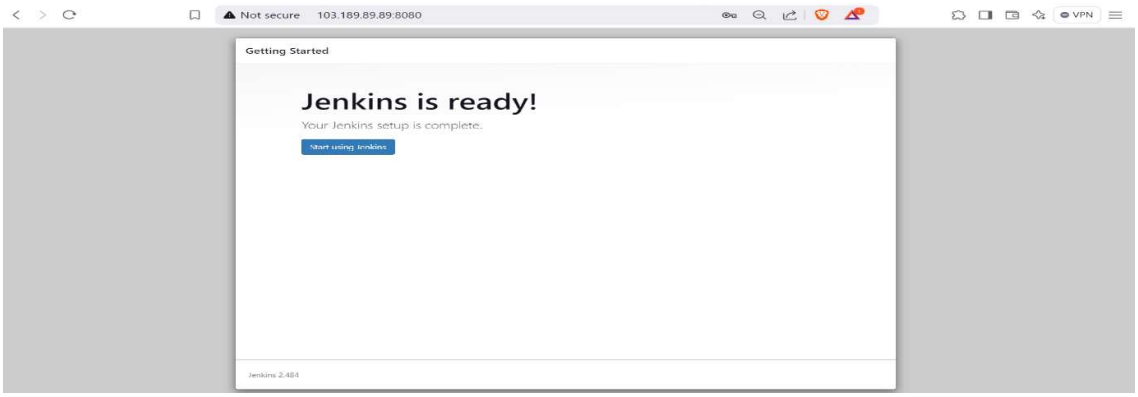


You will get an Instance Configuration page that requests your confirmation of the desired URL for your Jenkins instance. Verify either the domain name of your server or the IP address of your server:



Once you verify the correct details, press Save and Complete. You will see a confirmation page stating that “Jenkins is Ready!”:



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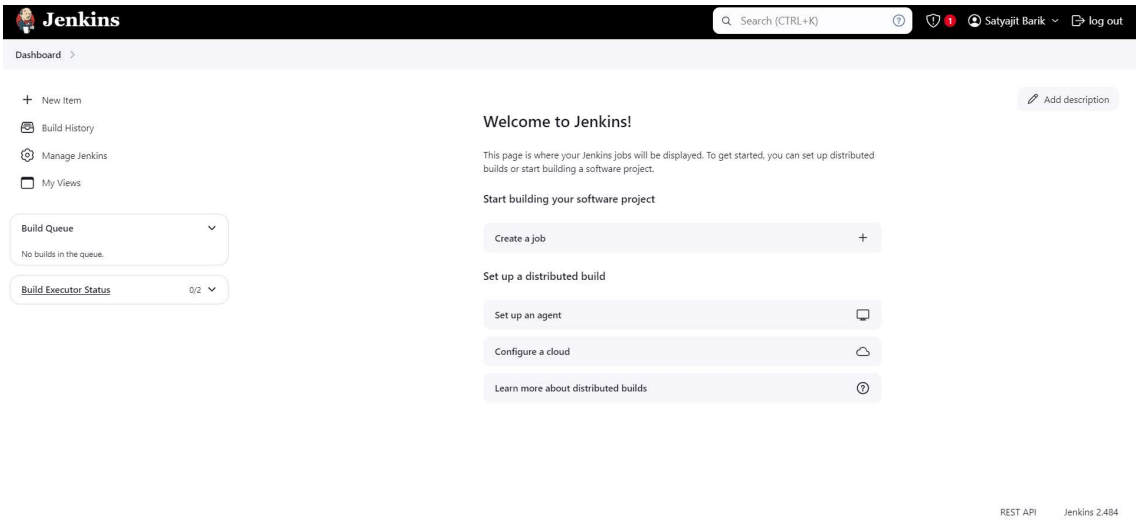
Click **Start using Jenkins** to visit the main Jenkins dashboard:



At this stage, you have finished a successful installation of Jenkins.

Congratulations