

Jenkins Installation

Jenkins Installation Steps

(Pre-requisite - Update and Upgrade Ubuntu OS and install openjdk version 17)

apt update -y && apt upgrade -y && apt install openjdk-17-jdk -y

```
root@ip-172-31-94-84:/home/ubuntu#  
root@ip-172-31-94-84:/home/ubuntu# apt update -y && apt upgrade -y && apt install openjdk-17-jdk -y
```

(Check Java Version)

java --version

```
root@ip-172-31-94-84:/home/ubuntu# java --version  
openjdk 17.0.12 2024-07-16  
OpenJDK Runtime Environment (build 17.0.12+7-Ubuntu-1ubuntu224.04)  
OpenJDK 64-Bit Server VM (build 17.0.12+7-Ubuntu-1ubuntu224.04, mixed mode, sharing)
```

(Download Jenkins package from the internet Repo epel)

curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee \

/usr/share/keyrings/jenkins-keyring.asc > /dev/null

```
root@ip-172-31-94-84:/home/ubuntu#  
root@ip-172-31-94-84:/home/ubuntu# curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee /usr/share/keyrings/jenkins-keyring.asc > /dev/null
```

(Update the server repo with Jenkins Packages)

echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \

https://pkg.jenkins.io/debian-stable binary/ | sudo tee \

/etc/apt/sources.list.d/jenkins.list > /dev/null

```
root@ip-172-31-94-84:/home/ubuntu#  
root@ip-172-31-94-84:/home/ubuntu# echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] https://pkg.jenkins.io/debian-stable binary/ | sudo tee /etc/apt/sources.list.d/jenkins.list > /dev/null
```

(Update the OS Repo with Jenkins Packages)

sudo apt update -y

```
root@ip-172-31-94-84:/home/ubuntu#  
root@ip-172-31-94-84:/home/ubuntu# apt update -y  
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease  
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease  
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease  
Ign:4 https://pkg.jenkins.io/debian-stable binary/ InRelease  
Get:5 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]  
Get:6 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]  
Hit:7 http://security.ubuntu.com/ubuntu noble-security InRelease  
Get:8 https://pkg.jenkins.io/debian-stable binary/ Packages [27.3 kB]  
Fetched 30.1 kB in 1s (38.4 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
All packages are up to date.  
root@ip-172-31-94-84:/home/ubuntu#
```

(Install Jenkins)

sudo apt install jenkins -y

```
root@ip-172-31-94-84:/home/ubuntu#
root@ip-172-31-94-84:/home/ubuntu# apt install jenkins
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  net-tools
The following NEW packages will be installed:
  jenkins net-tools
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 92.1 MB of archives.
After this operation, 94.3 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 net-tools amd64 2.10-0.1ubuntu4 [204 kB]
Get:2 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.452.3 [91.9 MB]
Fetched 92.1 MB in 8s (11.8 MB/s)
Selecting previously unselected package net-tools.
(Reading database ... 113787 files and directories currently installed.)
Preparing to unpack .../net-tools_2.10-0.1ubuntu4_amd64.deb ...
Unpacking net-tools (2.10-0.1ubuntu4) ...
Selecting previously unselected package jenkins.
Preparing to unpack .../jenkins_2.452.3_all.deb ...
Unpacking jenkins (2.452.3) ...
Setting up net-tools (2.10-0.1ubuntu4) ...
Setting up jenkins (2.452.3) ...
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /usr/lib/systemd/system/jenkins.service.
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning candidates...
Scanning linux images...

Pending kernel upgrade!
Running kernel version:
  6.8.0-1009-aws
Diagnostics:
  The currently running kernel version is not the expected kernel version 6.8.0-1012-aws.

Restarting the system to load the new kernel will not be handled automatically, so you should consider rebooting.

Restarting services...

Service restarts being deferred:
/etc/needrestart/restart.d/dbus.service
systemctl restart networkd-dispatcher.service
systemctl restart systemd-logind.service
systemctl restart unattended-upgrades.service

No containers need to be restarted.

User sessions running outdated binaries:
ubuntu @ session #1: sshd[1041]
ubuntu @ user manager service: systemd[1046]
```

(Jenkins Service Default location)

/usr/lib/systemd/system/jenkins.service

```
/usr/lib/systemd/system/jenkins.service
```

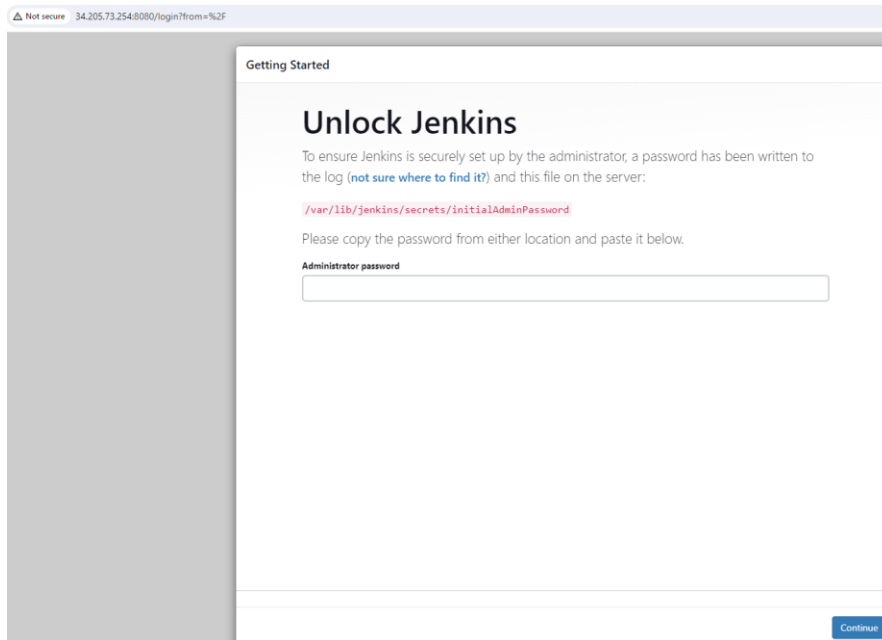
(Start Jenkins Service)

systemctl start Jenkins

```
root@ip-172-31-94-84:/home/ubuntu#
root@ip-172-31-94-84:/home/ubuntu# systemctl start jenkins
```

Post Installation Steps

Once Jenkins is installed, Open the Webpage now type Public IP of Jenkins:
port Number (Default port for Jenkins is 8080) to confirm Jenkins is installed
and updated

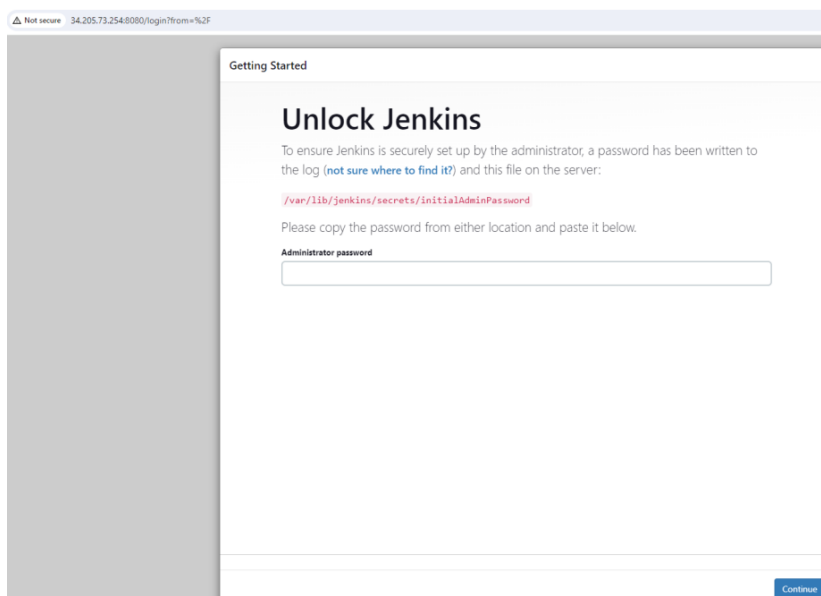


Once installation is done enter the default admin password from the below location on the ubuntu server where Jenkins is installed

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

```
root@ip-172-31-94-84:/home/ubuntu# cat /var/lib/jenkins/secrets/initialAdminPassword
```

Enter the password on the below screen and click continue



Select Install Suggested Plugins on the below screen

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.

Suggested plugins are installing

Getting Started

<input checked="" type="checkbox"/> Folders	<input checked="" type="checkbox"/> OWASP Markup Formatter	<input checked="" type="checkbox"/> Build Timeout	<input type="checkbox"/> Credentials Binding	<div><div>** Ionicons API</div><div>Folders</div><div>OWASP Markup Formatter</div><div>** ASM API</div><div>** JSON Path API</div><div>** Struts</div><div>** Pipeline: Step API</div><div>** Token Macro</div><div>Build Timeout</div><div>** bouncycastle API</div></div>
<input type="checkbox"/> Timestampers	<input type="checkbox"/> Workspace Cleanup	<input type="checkbox"/> Ant	<input type="checkbox"/> Gradle	
<input type="checkbox"/> Pipeline	<input type="checkbox"/> GitHub Branch Source	<input type="checkbox"/> Pipeline: GitHub Groovy Libraries	<input type="checkbox"/> Pipeline Graph View	
<input type="checkbox"/> Git	<input type="checkbox"/> SSH Build Agents	<input type="checkbox"/> Matrix Authorization Strategy	<input type="checkbox"/> PAM Authentication	
<input type="checkbox"/> LDAP	<input type="checkbox"/> Email Extension	<input type="checkbox"/> Mailer	<input type="checkbox"/> Dark Theme	

Create first Admin User on below screen and click save and continue

Getting Started

Create First Admin User

Username

Password

Confirm password

Full name

E-mail address

Jenkins 2.452.3

Skip and continue as admin

Save and Continue

Verify Instance Configuration and click Save and Finish

Getting Started

Instance Configuration

Jenkins URL:

The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD_URL environment variable provided to build steps.

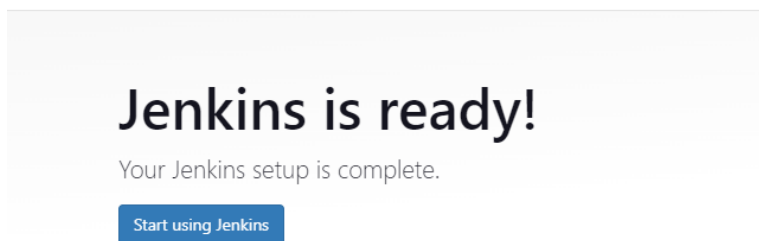
The proposed default value shown is **not saved yet** and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.

Jenkins 2.452.3

Not now [Save and Finish](#)

Jenkins Setup is complete. Click Start using Jenkins in the below screen

Getting Started



Jenkins dashboard

← → 🔒 Not secure 34.205.73.254:8080

Jenkins 🔒 🧑 Sourabh ▾ 🚪 log out

Dashboard >

+ New Item

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, you can set up distributed 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 ☁

Learn more about distributed builds ⓘ

Add description