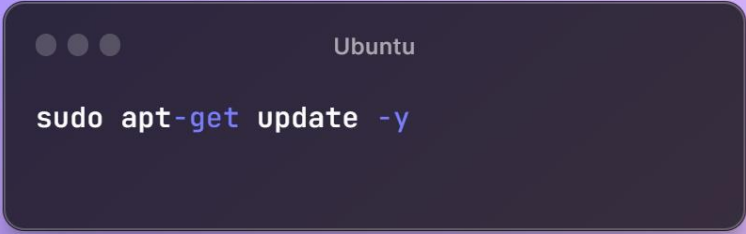


# **JENKINS INSTALLATION STEPS (UBUNTU)**

## **Step 1: Update the Ubuntu Server**

Before installing Jenkins, you have to update software packages on the Ubuntu server for that use the below commands.

A terminal window titled 'Ubuntu' with three window control buttons (red, yellow, green) on the left. The command 'sudo apt-get update -y' is entered in the terminal. The background is a solid light purple color.


```
Ubuntu  
sudo apt-get update -y
```

After updating it shows like this.

```
Get:35 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [41.7 kB]  
Get:36 http://archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [10.5 kB]  
Get:37 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [388 B]  
Get:38 http://archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]  
Get:39 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [24.3 kB]  
Get:40 http://archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [16.5 kB]  
Get:41 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [644 B]  
Get:42 http://archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]  
Fetched 29.6 MB in 26s (1152 kB/s)  
Reading package lists... Done  
root@LAPTOP-D6GGIPLD:~#
```

## **Step 2: Add Repository Key**

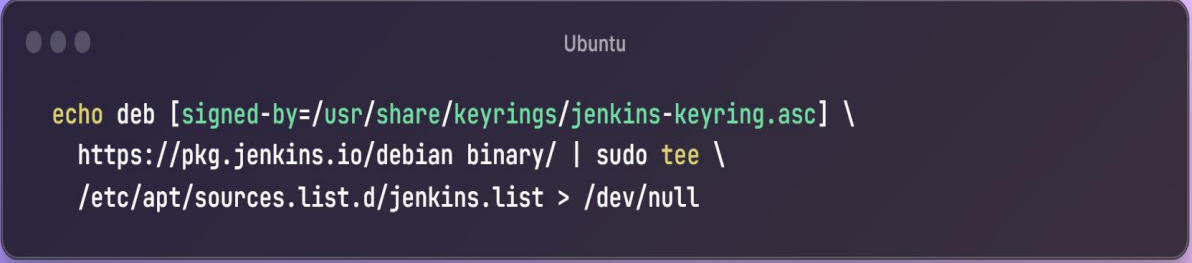
You have to add the Jenkins repository to the Ubuntu server, use the below command for that.

A terminal window titled 'Ubuntu' with three window control buttons (red, yellow, green) on the left. The command 'sudo wget -O /usr/share/keyrings/jenkins-keyring.asc https://pkg.jenkins.io/debian/jenkins.io-2023.key' is entered in the terminal. The background is a solid light purple color.

```
Ubuntu  
sudo wget -O /usr/share/keyrings/jenkins-keyring.asc  
https://pkg.jenkins.io/debian/jenkins.io-2023.key
```

### **Step 3: Add Package Repository**

Use the below command to add the package repository.



```
echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \
https://pkg.jenkins.io/debian binary/ | sudo tee \
/etc/apt/sources.list.d/jenkins.list > /dev/null
```

Now, to update the server you have to use the below command.



```
sudo apt-get update -y
```

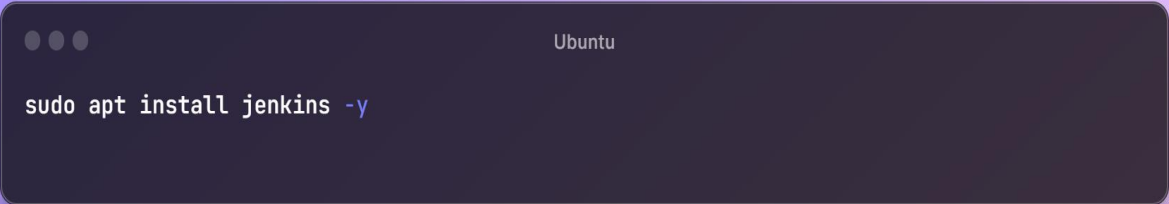
### **Step 4: Install Jenkins Dependencies**

Before installing Jenkins, we have to install its dependencies. We first have to install java, for that use the below command.



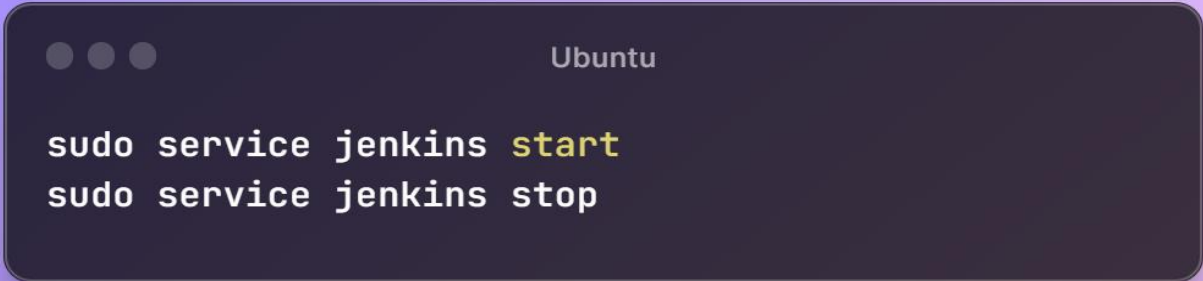
```
sudo apt-get install fontconfig openjdk-17-jre
```

Now, you can use the below command to install Jenkins.

A terminal window with a dark background and light text. The title bar says 'Ubuntu'. The command 'sudo apt install jenkins -y' is entered.

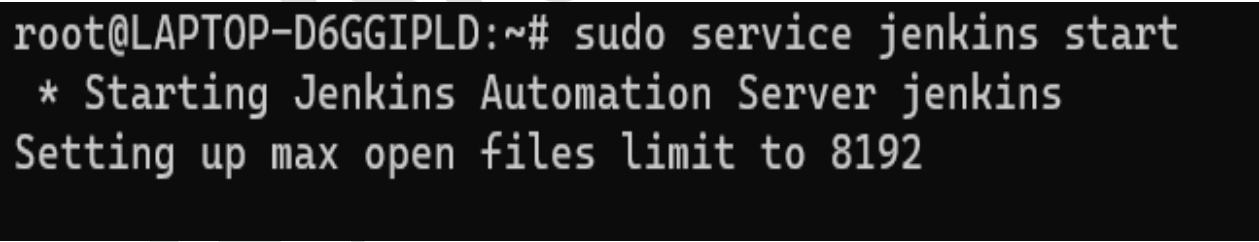
```
sudo apt install jenkins -y
```

Once Jenkins installation completed you have to start Jenkins service for that use the below command. You can also stop using below.

A terminal window with a dark background and light text. The title bar says 'Ubuntu'. Two commands are entered: 'sudo service jenkins start' and 'sudo service jenkins stop'.

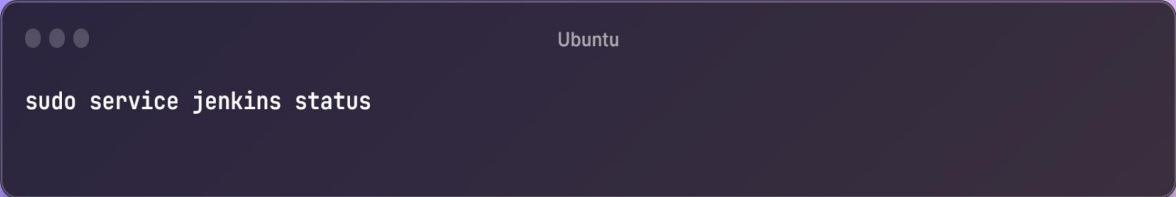
```
sudo service jenkins start  
sudo service jenkins stop
```

After starting it will show like this.

A terminal window with a black background and white text. The prompt is 'root@LAPTOP-D6GGIPLD:~#'. The command 'sudo service jenkins start' has been executed, resulting in the following output:

```
root@LAPTOP-D6GGIPLD:~# sudo service jenkins start  
* Starting Jenkins Automation Server jenkins  
Setting up max open files limit to 8192
```

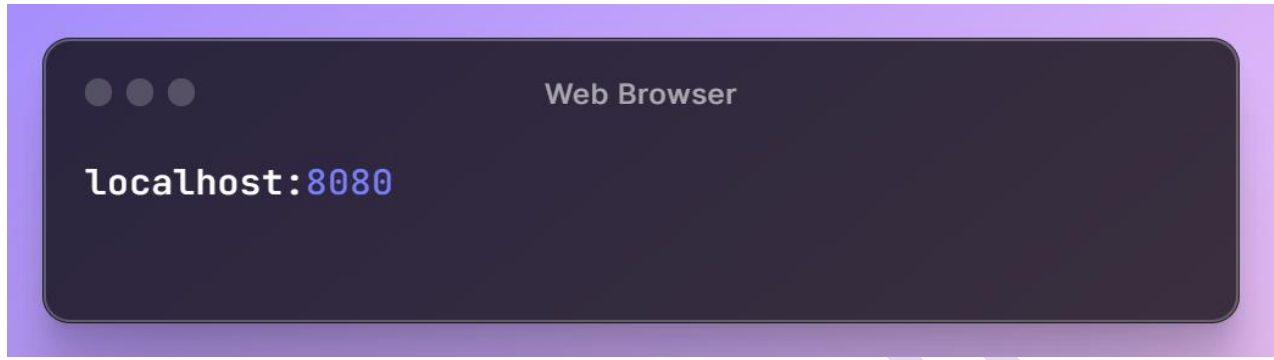
We can also check the status of Jenkins by the following command.

A terminal window with a dark background and light text. The title bar says 'Ubuntu'. The command 'sudo service jenkins status' is entered.

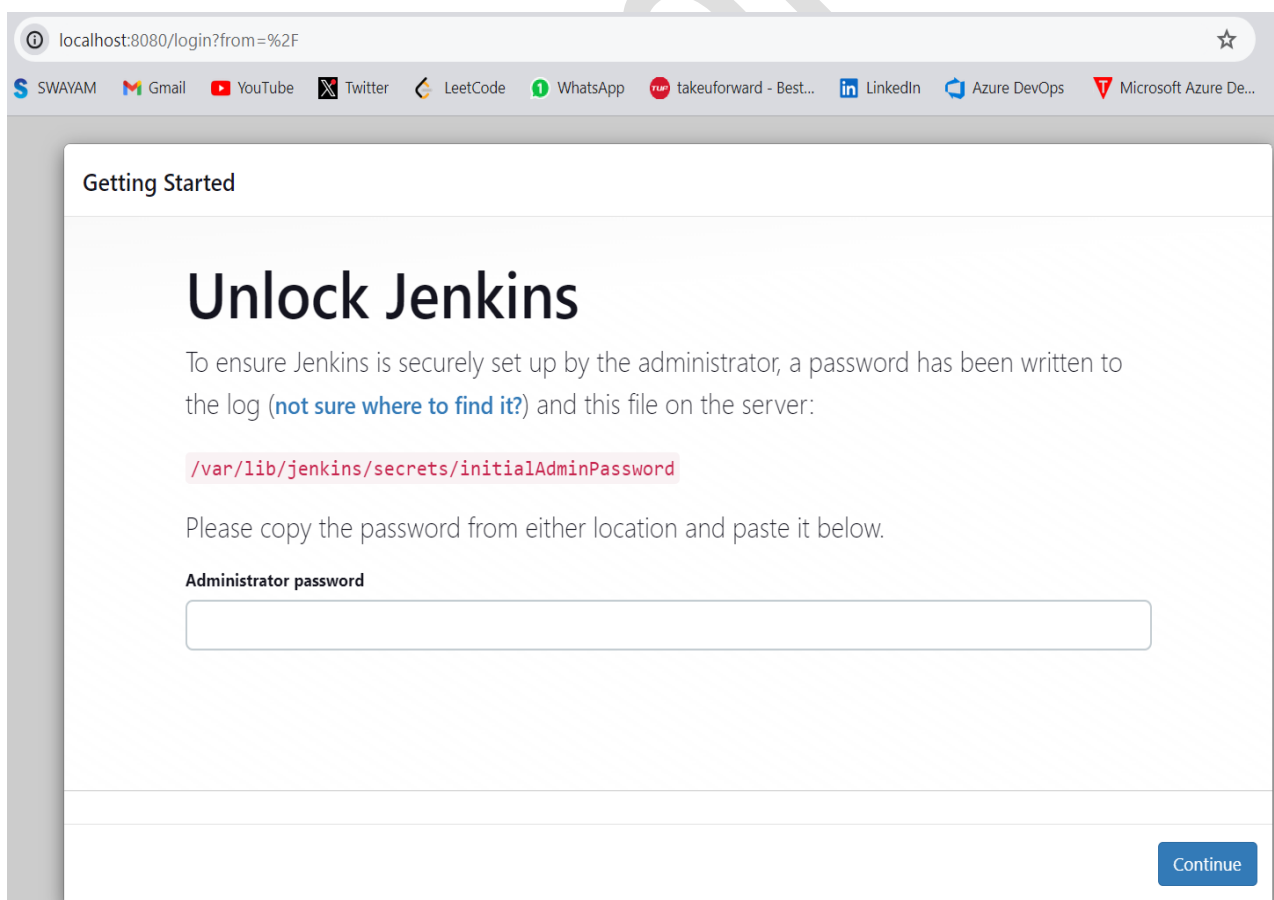
```
sudo service jenkins status
```

## Step 5: Setting Up Jenkins

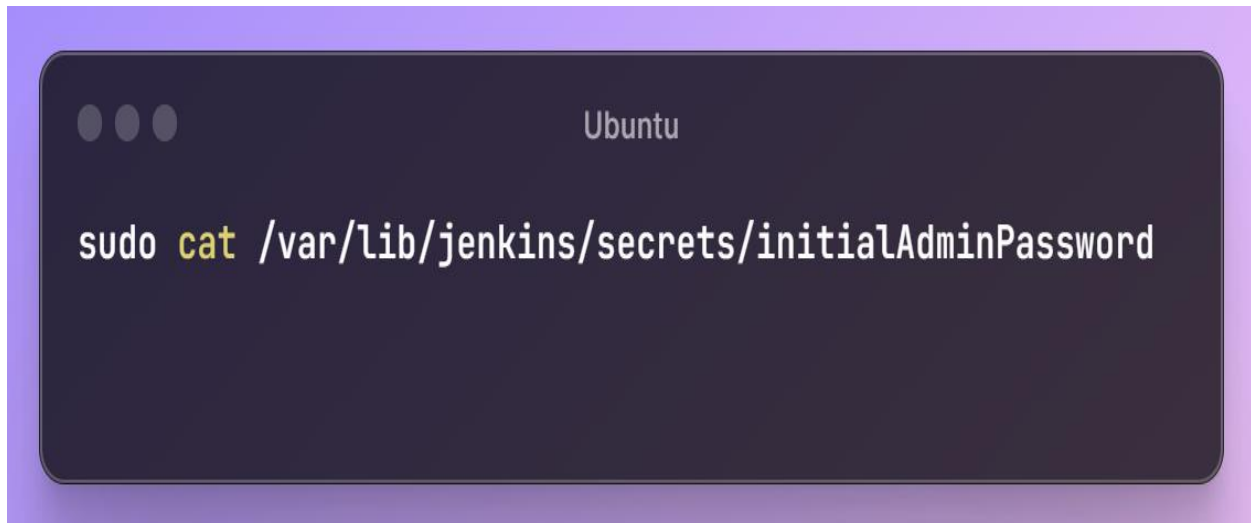
Now to access Jenkins from the web browser you have to type the below line in URL.



So, after typing the above in the URL we can see the Jenkins Unlock Page.

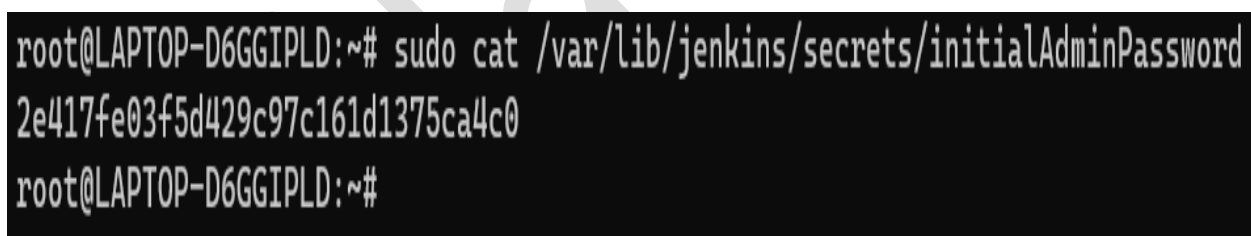


As per the given instructions in the above screenshot, you have to get the default administrator password from the given path so, you the below command to get that on your Ubuntu machine.

A terminal window titled 'Ubuntu' with a dark background and light text. The command 'sudo cat /var/lib/jenkins/secrets/initialAdminPassword' is entered and displayed in a monospaced font. The word 'cat' is highlighted in yellow.

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

You would get the below output and which is the default admin password for login to Jenkins copy that and use it in a web browser for Jenkins login.

A terminal window showing the output of the command. The prompt is 'root@LAPTOP-D6GGIPLD:~#'. The command 'sudo cat /var/lib/jenkins/secrets/initialAdminPassword' is entered. The output is a long alphanumeric string: '2e417fe03f5d429c97c161d1375ca4c0'. The prompt 'root@LAPTOP-D6GGIPLD:~#' is shown again.

```
root@LAPTOP-D6GGIPLD:~# sudo cat /var/lib/jenkins/secrets/initialAdminPassword
2e417fe03f5d429c97c161d1375ca4c0
root@LAPTOP-D6GGIPLD:~#
```

Once you logged in to Jenkins with the default admin password it will give two options and that is suggested plugins and select plugins to install. We recommend you to click on suggested plugins and Jenkins itself takes care of plugin installations. As shown below...

# 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.

Jenkins 2.445

Plugins installation will take some time and once all plugins are installed Jenkins will ask you to create your Admin user account.

Now, fill in the admin user details which you want and set Jenkins admin credentials.

# Create First Admin User

Username

Password

Confirm password

Full name

Jenkins 2.445

[Skip and continue as admin](#)

[Save and Continue](#)

Now friends you get a configuration page and it will ask you to confirm your preferred URL for the Jenkins instance. You can confirm either with the domain name or can use your server's IP address. After setting, Jenkins is ready!

## Getting Started

# Jenkins is ready!

Your Jenkins setup is complete.

[Start using Jenkins](#)

Jenkins 2.445

You can log in to Jenkins with created account and start the use of Jenkins.

The screenshot shows the Jenkins dashboard. At the top is a black header with the Jenkins logo, a search bar (Search (CTRL+K)), a shield icon with a red exclamation mark, a user profile for 'Narendra Sivangula', and a 'log out' button. Below the header is a light gray sidebar on the left with a 'Dashboard' link and a list of menu items: '+ New Item', 'People', 'Build History', 'Manage Jenkins', and 'My Views'. The main content area has a 'Welcome to Jenkins!' heading, a brief description of the page's purpose, and a 'Start building your software project' section. This section includes a 'Create a job' button with a plus icon. Below that is a 'Set up a distributed build' section with three buttons: 'Set up an agent' (with a computer icon), 'Configure a cloud' (with a cloud icon), and 'Learn more about distributed builds' (with a help icon). On the far right of the main area is an 'Add description' link. On the left side of the main area, there are two expandable panels. The first is 'Build Queue' with a dropdown arrow and the text 'No builds in the queue.' The second is 'Build Executor Status' with a dropdown arrow, showing a list of executors: '1 Idle' and '2 Idle'.



## **References**

**Reference:** [Jenkins.io](https://jenkins.io)

**Packages & Repositories:** <https://pkg.jenkins.io/debian/>

**Installation Blog:** <https://rishikeshblog.hashnode.dev/how-to-install-configure-jenkins-on-linux-easily>