

Task For DevOps

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1) Installation of Java is required for Jenkins

Command:

sudo apt update

sudo apt install fontconfig openjdk-17-jre

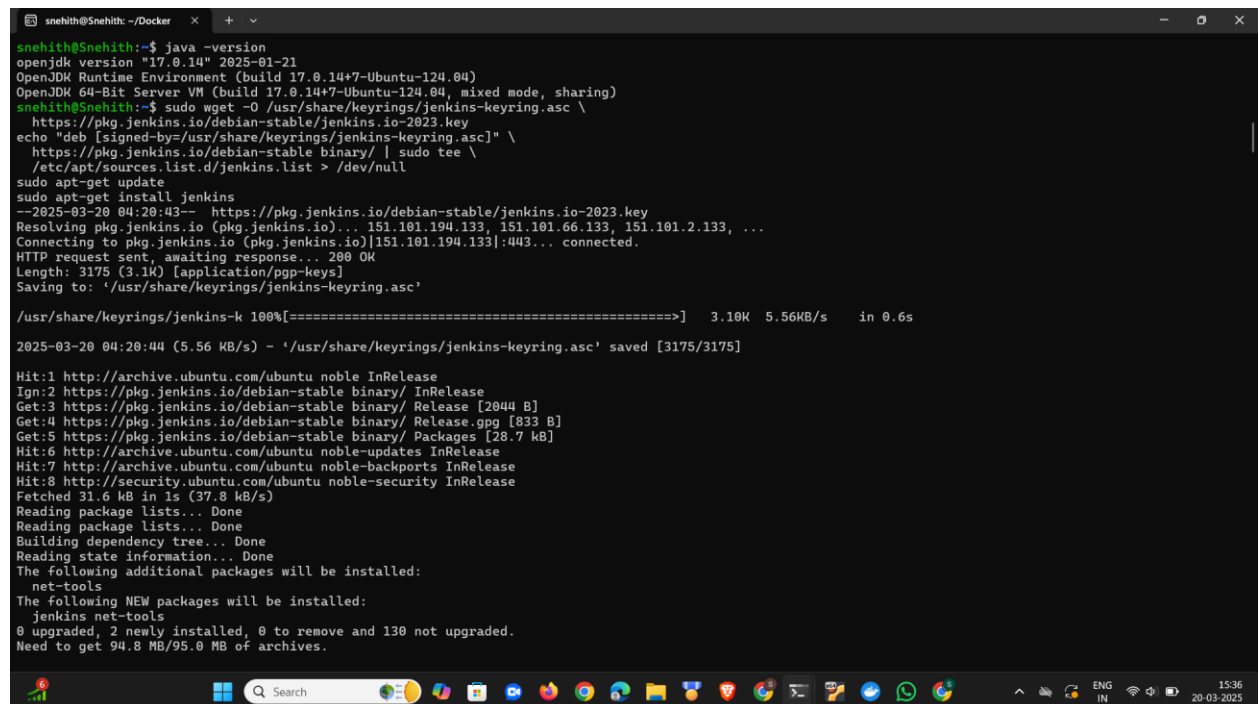
java -version

openjdk version "17.0.13" 2024-10-15

OpenJDK Runtime Environment (build 17.0.13+11-Debian-2)

OpenJDK 64-Bit Server VM (build 17.0.13+11-Debian-2, mixed mode, sharing)

ScreenShot:



```
snehith@Snehith: ~/Docker
snehith@Snehith:~$ java -version
openjdk version "17.0.14" 2025-01-21
OpenJDK Runtime Environment (build 17.0.14+7-Ubuntu-124.04)
OpenJDK 64-Bit Server VM (build 17.0.14+7-Ubuntu-124.04, mixed mode, sharing)
snehith@Snehith:~$ sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
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
sudo apt-get update
sudo apt-get install jenkins
--2025-03-20 04:20:43-- https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.194.133, 151.101.66.133, 151.101.2.133, ...
Connecting to pkg.jenkins.io (pkg.jenkins.io)[151.101.194.133]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 3175 (3.1K) [application/pgp-keys]
Saving to: '/usr/share/keyrings/jenkins-keyring.asc'

/usr/share/keyrings/jenkins-k 100%[=====] 3.10K 5.56KB/s in 0.6s

2025-03-20 04:20:44 (5.56 KB/s) - '/usr/share/keyrings/jenkins-keyring.asc' saved [3175/3175]

Hit:1 http://archive.ubuntu.com/ubuntu noble InRelease
Ign:2 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:3 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:4 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Get:5 https://pkg.jenkins.io/debian-stable binary/ Packages [28.7 kB]
Hit:6 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:7 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:8 http://security.ubuntu.com/ubuntu noble-security InRelease
Fetched 31.6 kB in 1s (37.8 kB/s)
Reading package lists... Done
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 130 not upgraded.
Need to get 94.8 MB/95.0 MB of archives.
```

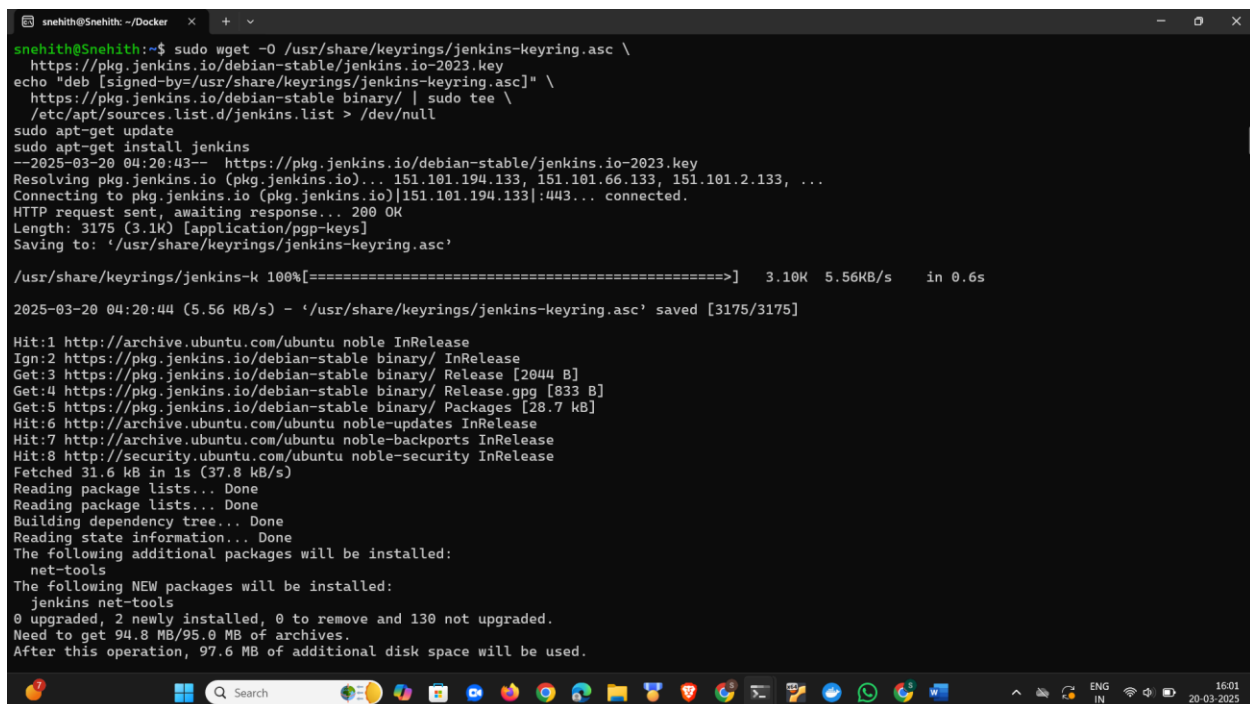
The Java JDK has been successfully installed

2) Install Jenkins

Command:

```
sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
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
sudo apt-get update
sudo apt-get install Jenkins
```

ScreenShot:



```
snehith@snehith: ~/Docker
snehith@snehith:~$ sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
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
sudo apt-get update
sudo apt-get install jenkins
--2025-03-20 04:20:43-- https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.194.133, 151.101.66.133, 151.101.2.133, ...
Connecting to pkg.jenkins.io (pkg.jenkins.io)[151.101.194.133]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 3175 (3.1K) [application/pgp-keys]
Saving to: '/usr/share/keyrings/jenkins-keyring.asc'

/usr/share/keyrings/jenkins-k 100%[=====] 3.10K 5.56KB/s in 0.6s

2025-03-20 04:20:44 (5.56 KB/s) - '/usr/share/keyrings/jenkins-keyring.asc' saved [3175/3175]

Hit:1 http://archive.ubuntu.com/ubuntu noble InRelease
Ign:2 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:3 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:4 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Get:5 https://pkg.jenkins.io/debian-stable binary/ Packages [28.7 kB]
Hit:6 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:7 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:8 http://security.ubuntu.com/ubuntu noble-security InRelease
Fetched 31.6 kB in 1s (37.8 kB/s)
Reading package lists... Done
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 130 not upgraded.
Need to get 94.8 MB/95.0 MB of archives.
After this operation, 97.6 MB of additional disk space will be used.
```

JenKins has been successfully installed

Now, Go to the Jenkins page in the Browser running in Localhost:8080 and login with your credentials

Getting Started

Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log ([not sure where to find it?](#)) and this file on the server:

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

Please copy the password from either location and paste it below.

Administrator password

.....|

Continue

Install the Suggested plugins required

Getting Started

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Customize Jenkins

Plugins extend Jenkins with additional features to support many different needs.

Install suggested plugins

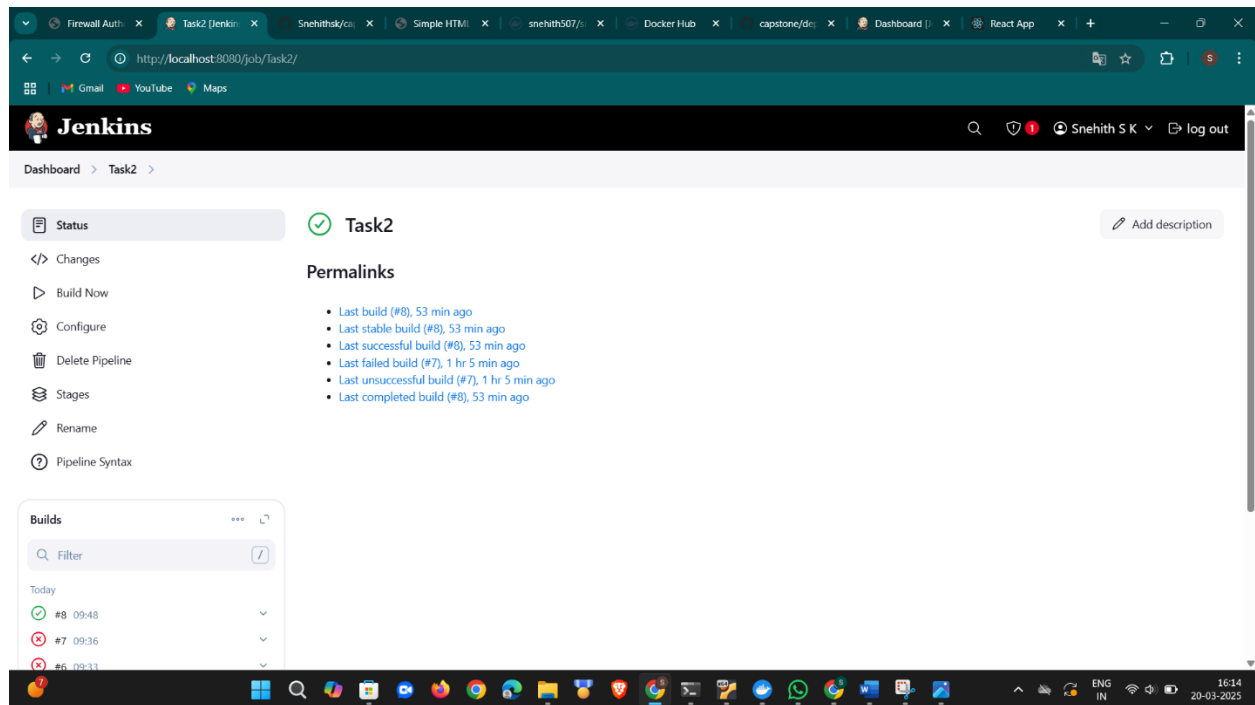
Install plugins the Jenkins community finds most useful.

Select plugins to install

Select and install plugins most suitable for your needs.

Jenkins 2.492.2

Proceed by Creating the First Admin User



Now Jenkins is ready to use

Getting Started


Jenkins is ready!

Your Jenkins setup is complete.

[Start using Jenkins](#)


Jenkins 2.492.2


Now create a new item


 **Jenkins** 🔍 🛡️ 1

Dashboard >

+ New Item

 Build History

 Manage Jenkins

 My Views

Build Queue ▼

No builds in the queue.

Build Executor Status 0/2 ▼


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 

Give an item name and select the item type as free-style project

New Item

Enter an item name

Nginx

Select an item type



Freestyle project

Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.



Pipeline

Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.



Multi-configuration project

Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

Build the steps using the commands

Dashboard > Tasks1 > Configuration

Configure

- General
- Source Code Management
- Triggers
- Environment
- Build Steps**
- Post-build Actions

Automate your build process with ordered tasks like code compilation, testing, and deployment.

Execute shell ?

Command

[See the list of available environment variables](#)

```
echo "snehith" | sudo -S apt update -y
echo "snehith" | sudo -S apt install nginx -y
echo "snehith" | sudo -S systemctl start nginx
echo "snehith" | sudo -S systemctl enable nginx
echo "snehith" | sudo -S systemctl status nginx
```

Advanced ▾

Add build step ▾

Post-build Actions

Define what happens after a build completes, like sending notifications, archiving artifacts, or triggering other jobs.

Save Apply

After the successful compilation of the build, Nginx will be opened in localhost, once the ip address is given

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.