

Tutorial Instalasi Jenkins

Sebelum menginstal jenkins kita perlu mengetahui dulu apa yang dimaksud jenkins tersebut, berikut sekilas penjelasan tentang jenkins

Pengertian Jenkins adalah open source automation server yang paling populer pada saat ini
web jenkins <https://www.jenkins.io/>

Menginstal Jenkins

1. pertama untuk menginstal jenkins siapkan dulu kebutuhannya seperti di bawah ini

1. Hardware

Minimum

- 256 mb of Ram
- 1 GB of Drive space

Rekomendasi

- 4GB of Ram
- 50GB Drive space

Software

- SSH
- Java11
- Git
- Web Browser

Untuk sistem operasi saya menggunakan Linux karena kebanyakan perusahaan menggunakan linux

2. Set Up SSH

Pastikan kita set up ssh di komputer atau VM kita yang kita gunakan, untuk set up SSH gunakan perintah berikut

\$ssh-keygen

```
jenkins@tutorial:~$ ssh-keygen
Generating public/private ed25519 key pair.
Enter file in which to save the key (/home/jenkins/.ssh/id_ed25519):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/jenkins/.ssh/id_ed25519
Your public key has been saved in /home/jenkins/.ssh/id_ed25519.pub
The key fingerprint is:
SHA256:5FjMU8UWLYBZ6LxVVARV6XB7LZRG87ztXM6XZsM+yBQ jenkins@tutorial
The key's randomart image is:
+--[ED25519 256]--+
|      .B*B*=o|
|    o .+ oo*B.|
|   *o . += =|
|  = .o .E.o=|
| . S  o  .o+|
|   .  ..=o|
|   o  .**|
|   o+.o|
|   ..|
+-----[SHA256]-----+
jenkins@tutorial:~$
```

Nah nanti dia akan menjenret public dan private lalu tekan enter lalu di situ akan ada passphrasenya kalau mau di isi silahkan tapi saya disini ingin dai kosongkan jadi langsung enter saja dan hasilnya akan seperti gambar di atas.

3.Menginstall Software yang di butuhkan

- Java 17
- Git

kita coba install git dulu,sebelum menginstall git kita bisa cek dulu apakah git sudah terinstal apa belum maka gunakan perintah

\$ git --version

```
jenkins@tutorial:~$ sudo apt-get install git
[sudo] password for jenkins:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
git is already the newest version (1:2.43.0-1ubuntu7.1).
git set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
jenkins@tutorial:~$ git --version
git version 2.43.0
```

nah disini saya sudah melakukan instalasi git sebelumnya tapi jika belum di install gunakan perintah berikut untuk mrnginstall git

\$sudo apt-get install git

setelah menginsatall git selajutnya kita melakukan install java 11,sebelum menginstall pastikan dulu apakah java sudah terinstall apa belum gunakan perintah

\$ javac --version

```
jenkins@tutorial:~$ javca --verison
Command 'javca' not found, but there are 17 similar ones.
jenkins@tutorial:~$ javac --verison
Command 'javac' not found, but can be installed with:
sudo apt install openjdk-17-jdk-headless # version 17.0.12+7-1ubuntu2~24.04, or
sudo apt install openjdk-21-jdk-headless # version 21.0.4+7-1ubuntu2~24.04
sudo apt install default-jdk # version 2:1.17-75
sudo apt install openjdk-11-jdk-headless # version 11.0.24+8-1ubuntu3~24.04.1
sudo apt install openjdk-8-jdk-headless # version 8u422-b05-1~24.04
sudo apt install ecj # version 3.32.0+eclipse4.26-2
sudo apt install openjdk-19-jdk-headless # version 19.0.2+7-4
sudo apt install openjdk-20-jdk-headless # version 20.0.2+9-1
sudo apt install openjdk-22-jdk-headless # version 22~22ea-1
jenkins@tutorial:~$
```

kalau belum terinstall maka akan muncul tulisan “Command 'javac' not found, but can be installed with” yang berarti java belum ada untuk menginstallnya kita bisa pilih mau yang versi berapa,kita bisa lihat di gambar atas ada beberapa pilihan java dengan versi yang berbeda,untuk menginstallnya gunakan perintah

\$ sudo apt-get install openjdk-17-jdk-headless

jika sudah pastikan lagi dengan perintah yang sama yaitu

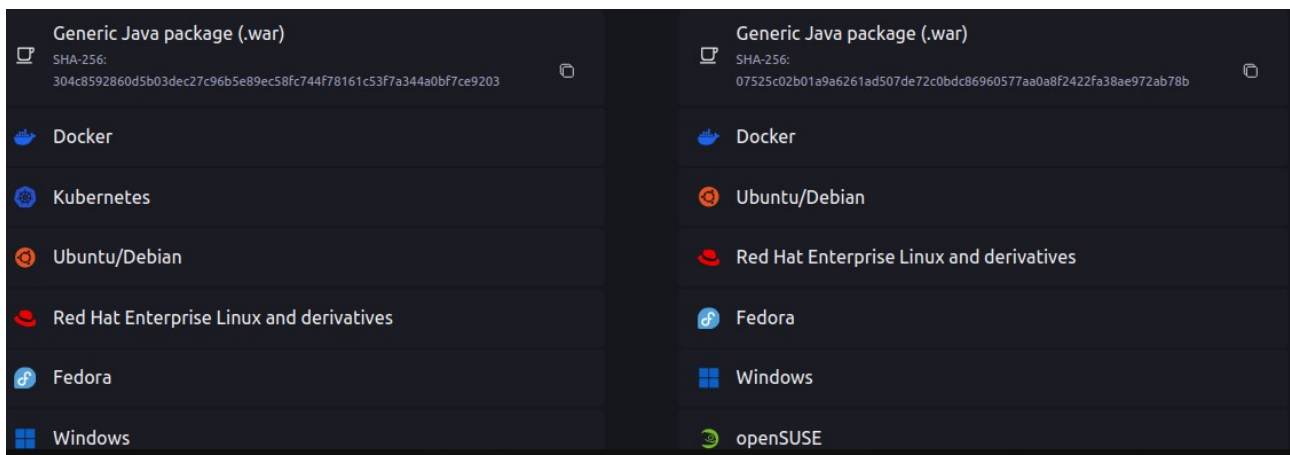
\$ javac -version

```
jenkins@tutorial:~$ javac --version
javac 17.0.13
jenkins@tutorial:~$
```

4.install jenkins

download dulu jenkins-nya di link berikut

<https://www.jenkins.io/download/>



untuk pilihannya ada banyak tapi saya pilih yang Generic Java packge(war),salin dengan cara arahkan kursor lalu click kanan lalu copy link,untuk download gunakan perintah “wget” lalu tempel jenkins yang kita salin tadi bisa di lihat seperti di bawah

\$ wget <https://get.jenkins.io/war-stable/2.479.3/jenkins.war>

setelah di install coba cek dengan perintah

\$ls -l

```
jenkins@tutorial:~$ ls -l
total 94544
-rw-rw-r-- 1 jenkins jenkins 96806970 Jan  8 14:04 jenkins.war
jenkins@tutorial:~$
```

bisa di lihat disini saya sudah melakukan instalasinya,lalu jalankan dengan perintah berikut

\$ java -jar jenkins.war --httpPort=xxx

jika ingin mengganti portnya silahkan isi sesuai dengan keinginan kita,jiga tidak ingin mengubah portnya maka gunakan perintah

\$ java -jar jenkins.war

nah disini saya menggunakan port 8080 bisa di lihat gambar di bawah

terlihat bahwa jenkins sudah di jalankan agar tetap berjalan biarkan saja seperti itu

buat di browser menggunakan ip yang kita misalnya “192.168.4.29:8080” dan tampilannya akan seperti ini

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:

```
/home/jenkins/.jenkins/secrets/initialAdminPassword
```

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

Administrator password

Continue

```
jenkins@tutorial:~$ java -jar jenkins.war --httpPort=8080
Running from: /home/jenkins/jenkins.war
webroot: /home/jenkins/.jenkins/war
2025-01-21 13:29:35.660+0000 [id=1] INFO winstone.Logger#logInternal: Beginning extraction from war file
2025-01-21 13:29:36.651+0000 [id=1] WARNING o.e.j.ee9.nested.ContextHandler#setContextPath: Empty contextPath
2025-01-21 13:29:36.724+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: jetty-12.0.16; built: 2024-12-09T21:02:54.535Z; git: c3f88bafb4e393f23204dc14dc57b042e84debc7; jvm 17.0.13+11-Ubuntu-2ubuntu124.04
2025-01-21 13:29:37.362+0000 [id=1] INFO o.e.j.e.w.StandardDescriptorProcessor#visitServlet: NO JSP Support for /, did not find org.eclipse.jetty.ee9.jsp.JettyJspServlet
2025-01-21 13:29:37.436+0000 [id=1] INFO o.e.j.s.DefaultSessionIdManager#doStart: Session workerName=node0
2025-01-21 13:29:38.125+0000 [id=1] INFO hudson.WebAppMain#contextInitialized: Jenkins home directory: /home/jenkins/.jenkins found at: $user.home/.jenkins
2025-01-21 13:29:38.451+0000 [id=1] INFO o.e.j.s.handler.ContextHandler#doStart: Started oeje9n.ContextHandler$CoreContextHandler@6a0cbcf(Jenkins v2.479.3,,/,,b=file:///home/jenkins/.jenkins/war/,a=AVAILABLE,h=oeje9n.ContextHandler$CoreContextHandler$CoreToNestedHandler@67110f71(STARTED))
2025-01-21 13:29:38.537+0000 [id=1] INFO o.e.j.server.AbstractConnector#doStart: Started ServerConnector@9a6fbc0(HTTP/1.1, (http/1.1)){0.0.0.0:8080}
2025-01-21 13:29:38.544+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: Started oejs.Server@53941c2f(STARTING)[12.0.16,sto=0] @3603ms
2025-01-21 13:29:38.583+0000 [id=25] INFO winstone.Logger#logInternal: Winstone Servlet Engine running: controlPort=disabled
2025-01-21 13:29:39.043+0000 [id=30] INFO jenkins.InitReactorRunner$1#onAttained: Started initialization
2025-01-21 13:29:39.058+0000 [id=31] INFO jenkins.InitReactorRunner$1#onAttained: Listed all plugins
2025-01-21 13:29:40.246+0000 [id=30] INFO jenkins.InitReactorRunner$1#onAttained: Prepared all plugins
2025-01-21 13:29:40.257+0000 [id=30] INFO jenkins.InitReactorRunner$1#onAttained: Started all plugins
2025-01-21 13:29:40.275+0000 [id=30] INFO jenkins.InitReactorRunner$1#onAttained: Augmented all extensions
2025-01-21 13:29:41.100+0000 [id=31] INFO jenkins.InitReactorRunner$1#onAttained: System config loaded
2025-01-21 13:29:41.100+0000 [id=31] INFO jenkins.InitReactorRunner$1#onAttained: System config adapted
2025-01-21 13:29:41.100+0000 [id=31] INFO jenkins.InitReactorRunner$1#onAttained: Loaded all jobs
2025-01-21 13:29:41.109+0000 [id=31] INFO jenkins.InitReactorRunner$1#onAttained: Configuration for all jobs updated
2025-01-21 13:29:41.163+0000 [id=44] INFO hudson.util.Retrier#start: Attempt #1 to do the action check updates server
2025-01-21 13:29:42.457+0000 [id=31] INFO jenkins.install.SetUpWizard#init:
*****
```

kita harus melakukan unlock cara untuk mendapatkan locknya buka file ini “/home/jenkins/.jenkins/secrets/initialAdminPassword”

masuk lagi ke terminal lalu lakukan perintah berikut

```
$ cat /home/jenkins/.jenkins/secrets/initialAdminPassword
```

```
jenkins@tutorial:~$ cat /home/jenkins/.jenkins/secrets/initialAdminPassword
aede355755a4d1b94b9327146b9957b
jenkins@tutorial:~$
```

copy lock yang ada di file tersebut tempel di tampilan browser tadi lalu continue

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:

`/home/jenkins/.jenkins/secrets/initialAdminPassword`

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

Administrator password

.....

Continue

nah tampilan akan menjadi seperti ini

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.

di sebelah kanan itu jika ingin menginstall plugin yang di rekomendasikan maka pilih yang kanan tapi saya ingin pilih yang kiri karena saya akan install pluginnya sendiri

Getting Started

Organization and Administration

Build Features

Build Tools

Build Analysis and Reporting

Pipelines and Continuous Delivery

Source Code Management

Distributed Builds

User Management and Security

Notifications and Publishing

Appearance

Languages

All | None | Suggested

Selected (0/52)

Note that the full list of plugins is not shown here. Additional plugins can be installed in the **Plugin Manager** once the initial setup is complete. [See the documentation for more information.](#)

Organization and Administration (0/4)

☐ Dashboard View

Customizable dashboard that can present various views of job information.

24 >

☐ Folders

This plugin allows users to create "folders" to organize jobs. Users can define custom taxonomies (like by project type, organization type etc). Folders are nestable and you can define views within folders. Maintained by CloudBees, Inc.

1 >

☐ Configuration as Code

This plugin allows configuration of Jenkins based on human-readable declarative configuration files.

17 >

☐ OWASP Markup Formatter

Uses the [OWASP Java HTML Sanitizer](#) to allow safe-seeming HTML markup to be entered in project descriptions and the like.

Jenkins 2.479.3

BackInstall

pilih “none” artinya untuk tidak menginstall plugin sama sekali,lalu tekan install.

5.Membuat admin user

Getting Started

Create First Admin User

Username

Password

Confirm password

Jenkins 2.479.3

Skip and continue as adminSave and Continue

isi dengan keinginan kita sendiri untuk username,passwordnya,dan full namanya lalu save and continue

Instance Configuration

Jenkins URL:

http://192.168.4.29:8080/

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.


ini jenkins URL-nya saya samakan seperti yang di awal lalu save and finish,tampilannya akan seperti ini


Jenkins is ready!


Your Jenkins setup is complete.


Start using Jenkins

lalu start using jenkins

 **Jenkins**


 1


 Hanif Hanafi


 log out

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

Add description