



How To Install Jenkins on Ubuntu

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Jenkins is a Java-built open-source Continuous Integration (CI) and CD platform. Basically, Jenkins builds software projects, checks and deploys them. This is one of the most practical programming tools you can master, and today we will show you how Jenkins is installed on Ubuntu 18.04. Use this powerful tool to activate your VPS server!

Jenkins is loved by teams of all sizes, for different language projects like Java, Ruby, Dot Net, PHP etc. Jenkins is a platform that is autonomous, and can be used on Windows, Linux or any other operating system.

Prerequisites

• Hardware Requirements:

- RAM- 4 GB (Recommended)
- Storage- more than 50 GB of Hard Disk Space (Recommended)

• Software Requirements:

- Java: Java Development Kit (JDK) or Java Runtime Environment (JRE).
- Web Browser: Any browser such as Google Chrome, Mozilla Firefox, Microsoft Edge.
- Operating System: An Ubuntu 18.04 server installed with a non-root sudo user and firewall. For help in the planning of production capability of a Jenkins installation see

[Choosing the right hardware for Masters](#)

understand Jenkins:

- Continuous integration – the practice of continuous production combined with the main industry.
- Continuous delivery – the code is constantly delivered to an area after the code is ready for delivery. It could be for production or staging. The commodity is supplied to a consumer base that can provide QA or inspection by customers.

Developers update the code regularly in the shared repository (such as GitHub or TFS). Improvements made in the source code are made at the end of the day, making it difficult to identify the errors. So, Jenkins is used here.

Once a developer changes the repository, Jenkins will automatically enable the build and immediately warn you in the event of an error (Continuous Integration CI).

Installation Procedure:

Step 1: Install Java

Skip to the next section if you have Java already installed on your system.

To check, please run the following command in the terminal:

```
java --version
```

[Copy Code](#)

- Jenkins needs Java for running, but it doesn't include certain distributions by default, and Java versions of Jenkins are incompatible.
- Multiple Java implementations are available to you. OpenJDK is currently the most popular one, which we will use in this guide.
- Being an open-source Java application, Jenkins requires the installation of OpenJDK 8 on your system. The apt repositories can directly access OpenJDK 8.
- The installation of OpenJDK from standard repositories is recommended. Open and enter the following in the terminal window:

```
$ sudo apt update
```

```
$ sudo apt install openjdk-8-jdk
```

The default Ubuntu packages for Jenkins are always behind the current version of the project itself. You may use the project-maintained packages to install Jenkins to take advantage of the newest patches and features.

1. add the framework repository key:

```
$ wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io.key  
| sudo apt-key add
```

[Copy Code](#)

The device returns OK when the key is inserted.

```
ljs@lenovo:~$ wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io.key |  
sudo apt-key add  
OK
```

2. Next, link the repository of Debian packages to the sources.list of the server:

```
$ sudo sh -c 'echo deb http://pkg.jenkins.io/debian-stable binary/ >  
/etc/apt/sources.list.d/jenkins.list'
```

[Copy Code](#)

3. When both are in place, upgrade to apt to use the new repository:

```
$ sudo apt update
```

[Copy Code](#)

4. Install Jenkins:

```
$ sudo apt install jenkins
```

[Copy Code](#)

```
$ sudo systemctl status jenkins
```

[Copy Code](#)

If all went well, the start of the performance should demonstrate that the service is active and ready to boot:

Output:

```
jenkins.service - LSB: Start Jenkins at boot time
  Loaded: loaded (/etc/init.d/jenkins; generated)
  Active: active (exited) since Sat 2021-04-17 00:34:17 IST; 26s ago
  Docs: man:systemd-sysv-generator(8)
  Process: 17609 ExecStart=/etc/init.d/jenkins start (code=exited,
status=0/SUCC
```

[Copy Code](#)

As Jenkins is running, so adjust the firewall rules to complete our further setup of Jenkins from the web browser.

Step 4: Opening the Firewall

1. Jenkins works by default on port 8080, so let's open the port with ufw:

```
$ sudo ufw allow 8080
```

27017	ALLOW	192.168.1.10
8080	ALLOW	Anywhere
8000 (v6)	ALLOW	Anywhere (v6)
CUPS (v6)	ALLOW	Anywhere (v6)
27017 (v6)	ALLOW	Anywhere (v6)
8080 (v6)	ALLOW	Anywhere (v6)

[Copy Code](#)

3. If the firewall is inactive, the following commands will allow OpenSSH and turn it back on:

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

[Copy Code](#)

We can finish the initial configuration with Jenkins installed and our firewall configured.

Note: If you decide to continue to use Jenkins, use a Nginx Reverse Proxy at Ubuntu 18.04 to configure Jenkins with SSL when your exploration has been completed to



2. You can use the cat command to display the password:

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

Code Copied

3. Copy the alphanumeric terminal 32-character password and paste into the Administrator Password field, then click Continue.

Output:

```
0aaaf00d9afe48e5b7f2a494d1881326
```

Copy Code

3. You will see a configuration instance page, which asks you to confirm your Jenkins instance's URL of choice. Confirm either your server's domain name or the IP address of your server.

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 `EC2_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 2.277.3

Not now

Save and Finish

You have to login to your Jenkins Dashboard by visiting



Welcome to Jenkins!

Sign in

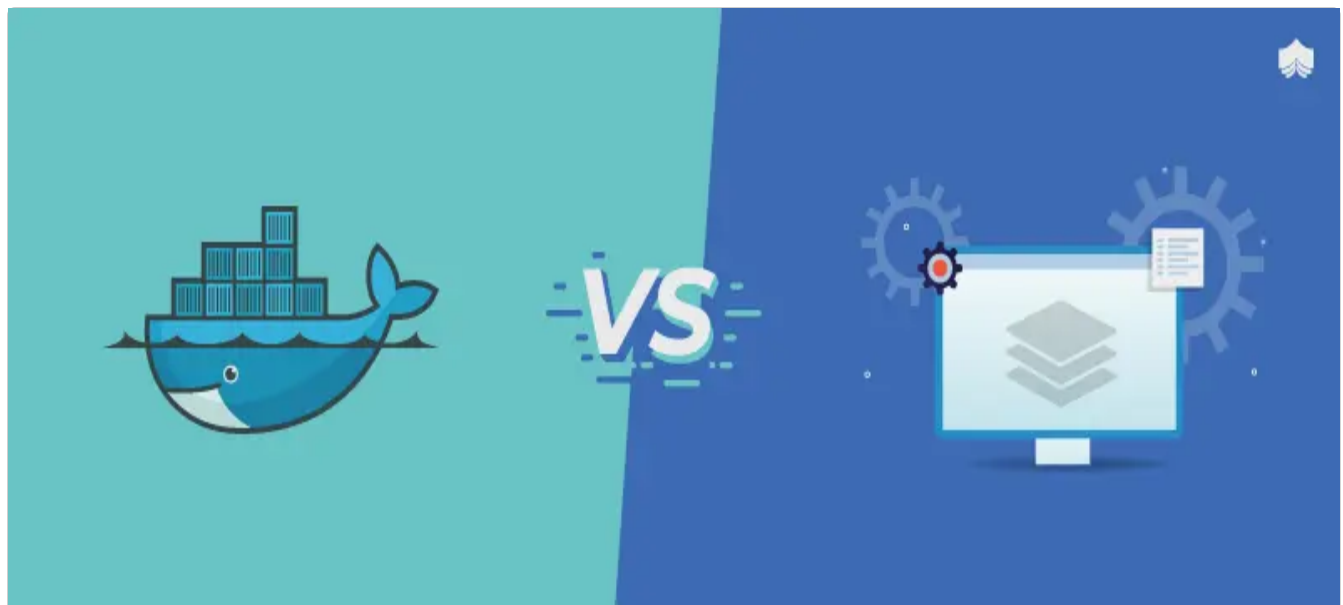
☐ Keep me signed in

Now in the Build section,

Join the discussion

Your email address will not be published. Required fields are marked *

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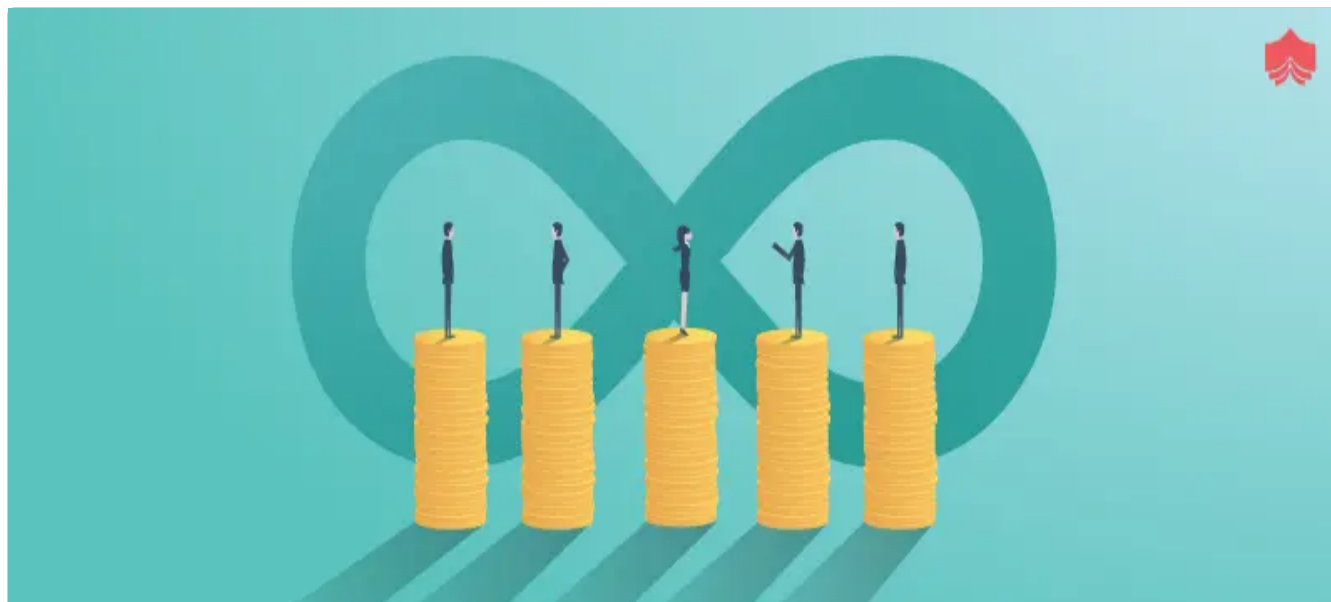
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