



How To Install Jenkins on Ubuntu 18.04

Posted July 9, 2018 ©123.9k

UBUNTU

SYSTEM TOOLS

UBUNTU 18.04

By [Melissa Anderson](#) and [Kathleen Juell](#)

[Become an author](#)

Not using **Ubuntu 18.04**? Choose a different version:



Introduction

Jenkins is an open-source automation server that automates the repetitive technical tasks involved in the continuous integration and delivery of software. Jenkins is Java-based and can be installed from Ubuntu packages or by downloading and running its web application archive (WAR) file — a collection of files that make up a complete web application to run on a server.

In this tutorial, you will install Jenkins by adding its Debian package repository, and using that repository to install the package with `apt`.

Prerequisites

To follow this tutorial, you will need:

- One Ubuntu 18.04 server configured with a non-root sudo user and firewall by following the [Ubuntu 18.04 initial server setup guide](#). We recommend starting with at least 1 GB of RAM. See [Choosing the Right Hardware for Masters](#) for guidance in planning the capacity of a production Jenkins installation.
- Java 8 installed, following our guidelines on [installing specific versions of OpenJDK on Ubuntu 18.04](#).

Step 1 — Installing Jenkins

The version of Jenkins included with the default Ubuntu packages is often behind the latest available version from the project itself. To take advantage of the latest fixes and features, you can use the project-maintained packages to install Jenkins.

First, add the repository key to the system:

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

When the key is added, the system will return `OK`. Next, append the Debian package repository address to the server's `sources.list`:

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

When both of these are in place, run `update` so that `apt` will use the new repository:

```
$ sudo apt update
```

Finally, install Jenkins and its dependencies:

```
$ sudo apt install jenkins
```

Now that Jenkins and its dependencies are in place, we'll start the Jenkins server.

Step 2 — Starting Jenkins

Let's start Jenkins using `systemctl`:

```
sudo systemctl start jenkins
```

Since `systemctl` doesn't display output, you can use its `status` command to verify that Jenkins started successfully:

```
$ sudo systemctl status jenkins
```

If everything went well, the beginning of the output should show that the service is active and configured to start at boot:

Output

```
• jenkins.service - LSB: Start Jenkins at boot time
  Loaded: loaded (/etc/init.d/jenkins; generated)
  Active: active (exited) since Mon 2018-07-09 17:22:08 UTC; 6min ago
    Docs: man:systemd-sysv-generator(8)
   Tasks: 0 (limit: 1153)
  CGroup: /system.slice/jenkins.service
```

Now that Jenkins is running, let's adjust our firewall rules so that we can reach it from a web browser to complete the initial setup.

Step 3 – Opening the Firewall

By default, Jenkins runs on port `8080`, so let's open that port using `ufw`:

```
$ sudo ufw allow 8080
```

Check `ufw`'s status to confirm the new rules:

```
$ sudo ufw status
```

You will see that traffic is allowed to port `8080` from anywhere:

Output

Status: active

To	Action	From
--	-----	----
OpenSSH	ALLOW	Anywhere
8080	ALLOW	Anywhere
OpenSSH (v6)	ALLOW	Anywhere (v6)
8080 (v6)	ALLOW	Anywhere (v6)

Note: If the firewall is inactive, the following commands will allow OpenSSH and enable the firewall:

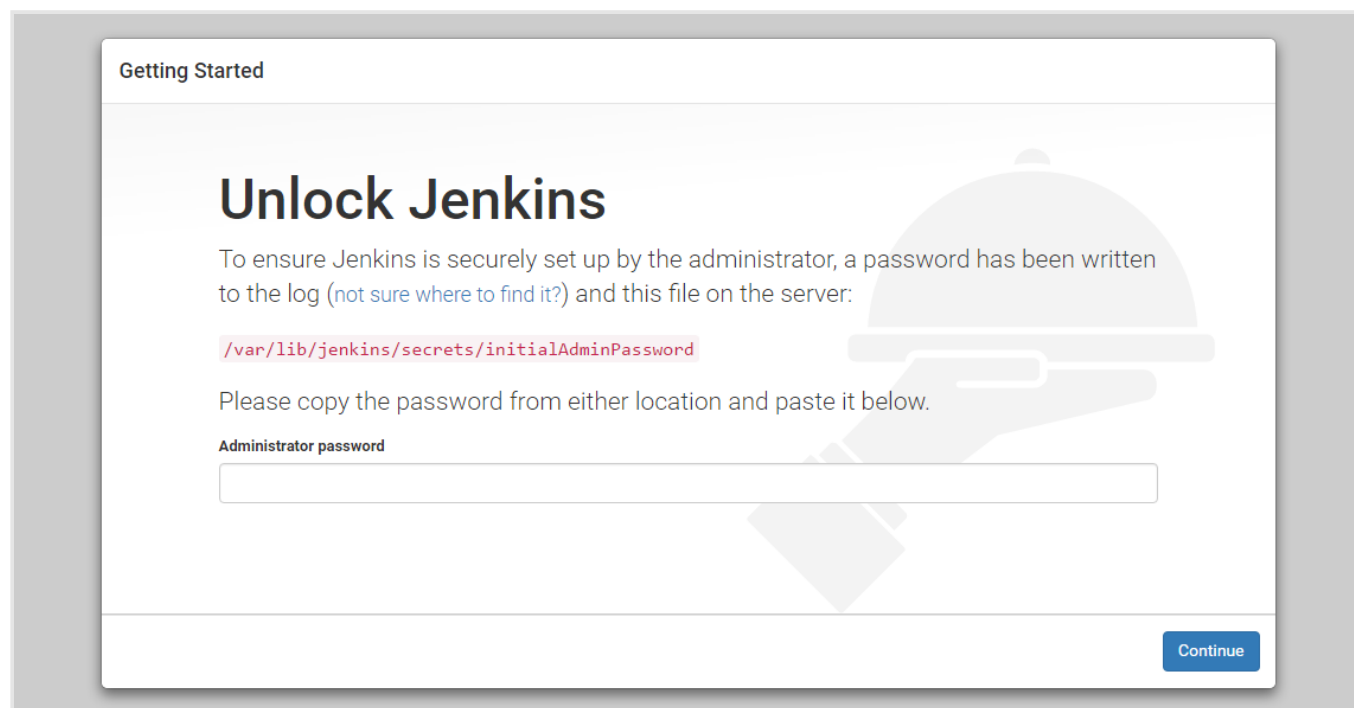
```
$ sudo ufw allow OpenSSH
$ sudo ufw enable
```

With Jenkins installed and our firewall configured, we can complete the initial setup.

Step 4 — Setting Up Jenkins

To set up your installation, visit Jenkins on its default port, `8080`, using your server domain name or IP address: `http://your_server_ip_or_domain:8080`

You should see the **Unlock Jenkins** screen, which displays the location of the initial password:

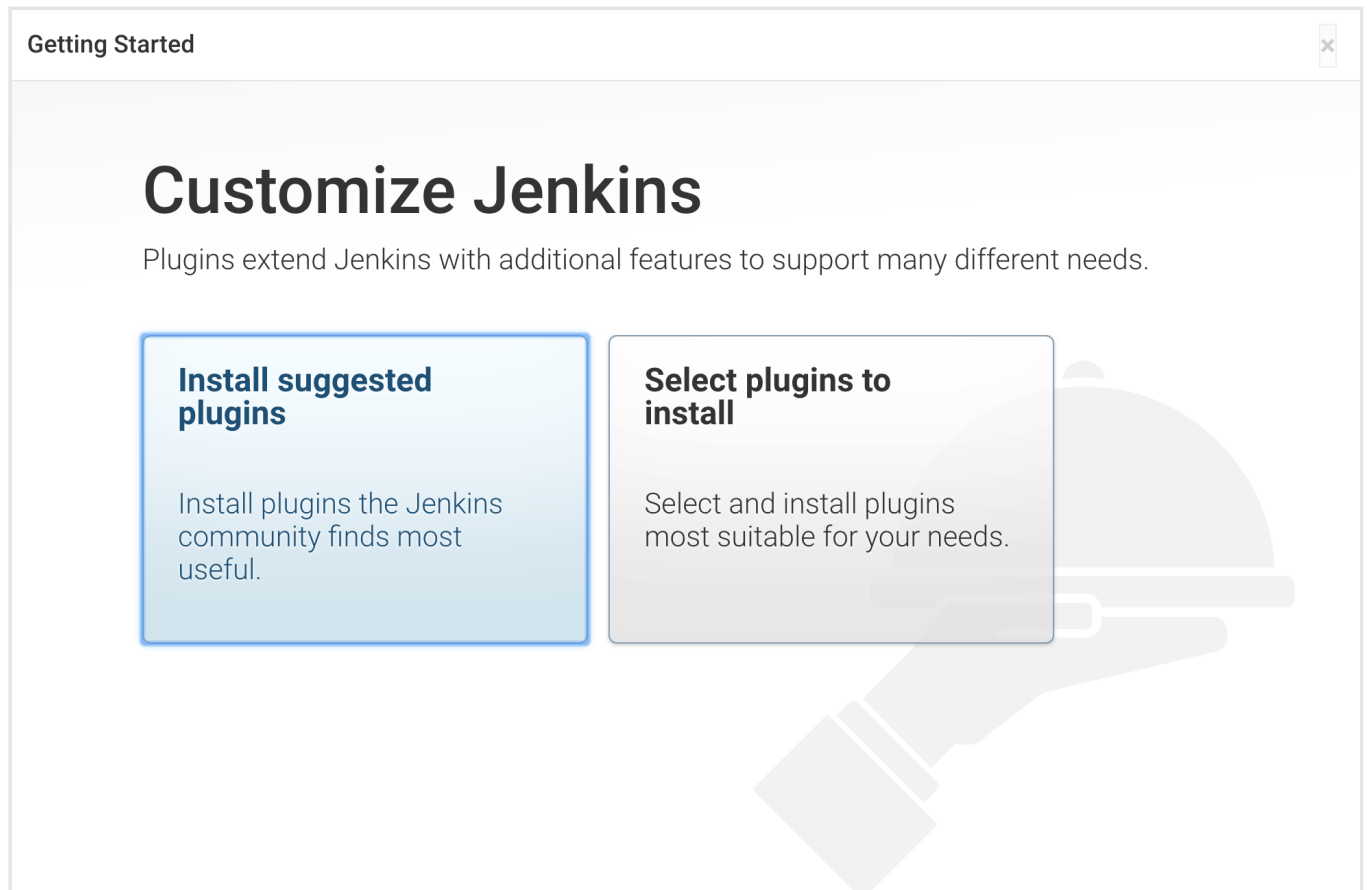


In the terminal window, use the `cat` command to display the password:

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

Copy the 32-character alphanumeric password from the terminal and paste it into the **Administrator password** field, then click **Continue**.

The next screen presents the option of installing suggested plugins or selecting specific plugins:



We'll click the **Install suggested plugins** option, which will immediately begin the installation process:

Getting Started

✓ Folders	✓ OWASP Markup Formatter	✓ Build Timeout	✓ Credentials Binding	<pre> ** Pipeline: Milestone Step ** JavaScript GUI Lib: jQuery bundles (jQuery and jQuery UI) ** Jackson 2 API ** JavaScript GUI Lib: ACE Editor bundle ** Pipeline: SCM Step ** Pipeline: Groovy ** Pipeline: Input Step ** Pipeline: Stage Step ** Pipeline: Job ** Pipeline Graph Analysis ** Pipeline: REST API ** JavaScript GUI Lib: Handlebars bundle ** JavaScript GUI Lib: Moment.js bundle Pipeline: Stage View ** Pipeline: Build Step ** Pipeline: Model API ** Pipeline: Declarative Extension Points API ** Apache HttpComponents Client 4.x API ** JSch dependency </pre>
✓ Timestamper	✓ Workspace Cleanup	✓ Ant	✓ Gradle	
🔄 Pipeline	🔄 GitHub Branch Source	🔄 Pipeline: GitHub Groovy Libraries	✓ Pipeline: Stage View	
🔄 Git	🔄 Subversion	🔄 SSH Slaves	🔄 Matrix Authorization Strategy	
🔄 PAM Authentication	🔄 LDAP	🔄 Email Extension	🔄 Mailer	

When the installation is complete, you will be prompted to set up the first administrative user. It's possible to skip this step and continue as `admin` using the initial password we used above, but we'll take a moment to create the user.

Note: The default Jenkins server is NOT encrypted, so the data submitted with this form is not protected. When you're ready to use this installation, follow the guide [How to Configure Jenkins with SSL Using an Nginx Reverse Proxy on Ubuntu 18.04](#). This will protect user credentials and information about builds that are transmitted via the web interface.

Create First Admin User

Username:

Password:

Confirm password:

Full name:

E-mail address:

Enter the name and password for your user:

Create First Admin User

Username:

Password:

Confirm password:

Full name:

E-mail address:

You will see an **Instance Configuration** page that will ask you to confirm the preferred URL for your Jenkins instance. Confirm either the domain name for your server or your server's IP address:

Instance Configuration

Jenkins URL:

http://203.0.113.0:8080/

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.

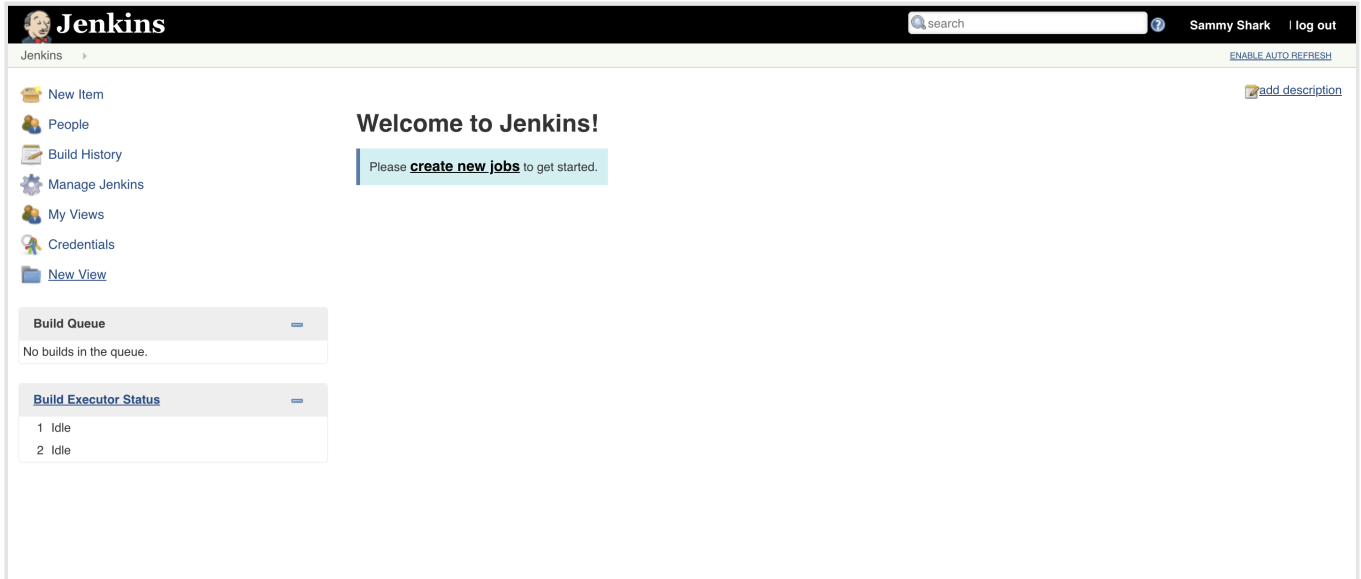
After confirming the appropriate information, click **Save and Finish**. You will see a confirmation page confirming that “**Jenkins is Ready!**”:

Jenkins is ready!

Your Jenkins setup is complete.

[Start using Jenkins](#)

Click **Start using Jenkins** to visit the main Jenkins dashboard:



At this point, you have completed a successful installation of Jenkins.

Conclusion

In this tutorial, you have installed Jenkins using the project-provided packages, started the server, opened the firewall, and created an administrative user. At this point, you can start exploring Jenkins.

When you've completed your exploration, if you decide to continue using Jenkins, follow the guide [How to Configure Jenkins with SSL Using an Nginx Reverse Proxy on Ubuntu 18.04](#) to protect your passwords, as well as any sensitive system or product information that will be sent between your machine and the server in plain text.

By [Melissa Anderson](#) and [Kathleen Juell](#)

Was this helpful?

Yes

No



[Report an issue](#)

Related

TUTORIAL

How To Install and Configure SimpleSAMLphp for SAML Authentication on Ubuntu 18.04

SimpleSAMLphp is an open-source PHP authentication ...

TUTORIAL

How To Run Multiple PHP Versions on One Server Using Apache and PHP-FPM on Ubuntu 18.04

The Apache web server uses virtual hosts to manage ...

TUTORIAL

How To Use the PDO PHP Extension to Perform MySQL Transactions in PHP on Ubuntu 18.04

A MySQL transaction is a group of logically related ...

TUTORIAL

How To Install MariaDB on Ubuntu 18.04

MariaDB is an open-source database management system, commonly used as an alternative for the MySQL portion of the

Still looking for an answer?









Ask a question



Search for more help

3 Comments

B *I*      

Leave a comment...

Sign In to Comment

 [x41102](#) September 6, 2018

1

Hi,

Thanks for this. Ran into an error after installation though, jenkins failed to start:

“”“

ERROR: No Java executable found in current PATH: /bin:/usr/bin:/sbin:/usr/sbin

If you actually have java installed on the system make sure the executable is in the
aforementioned

”””

Had to install Java(8) and it was all good after that. Read somewhere else that 18.04 defaults
to Java 9 which Jenkins “doesn’t want”.

[Reply](#) [Report](#)



[bwcunninghamii](#) July 30, 2019

0

apt install default-jre helped after I ran into this error as well. Although I did this on
ubuntu 16

[Reply](#) [Report](#)

 [digital40de01d99ecb8cba93c](#) November 10, 2018

0

Thank you, worked like a charm. Concise and easy to read.

[Reply](#) [Report](#)



This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.



BECOME A CONTRIBUTOR

You get paid; we donate to tech nonprofits.



GET OUR BIWEEKLY NEWSLETTER

Sign up for Infrastructure as a Newsletter.



COVID-19 SUPPORT PROGRAM

Working on something related
to COVID-19? DigitalOcean
would like to help.

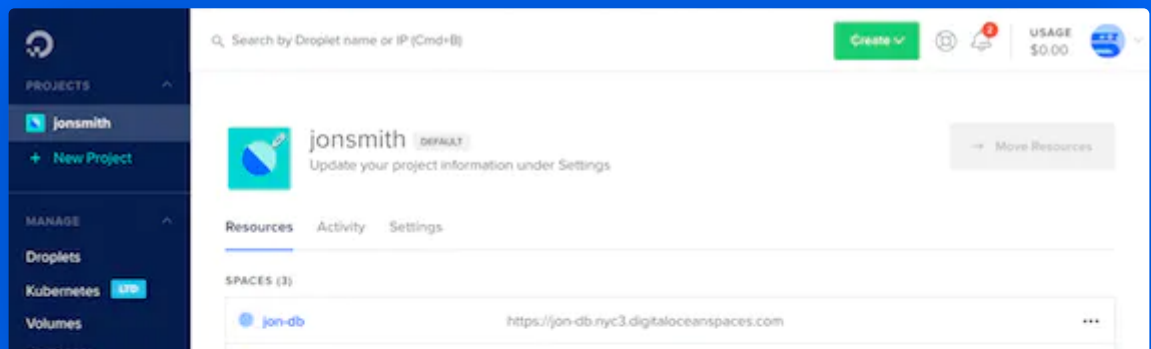
Featured on Community Kubernetes Course Learn Python 3 Machine Learning in Python
Getting started with Go Intro to Kubernetes

DigitalOcean Products Droplets Managed Databases Managed Kubernetes Spaces Object Storage
Marketplace

Welcome to the developer cloud

DigitalOcean makes it simple to launch in the cloud and scale up as you grow – whether you're running one virtual machine or ten thousand.

[Learn More](#)



© 2020 DigitalOcean, LLC. All rights reserved.

Company

[About](#)
[Leadership](#)
[Blog](#)
[Careers](#)
[Partners](#)
[Referral Program](#)

Products

[Products Overview](#)
[Pricing](#)
[Droplets](#)
[Kubernetes](#)
[Managed Databases](#)
[Spaces](#)
[Marketplace](#)

Press

Legal & Security

Load Balancers

Block Storage

Tools & Integrations

API

Documentation

Release Notes

Community

Tutorials

Q&A

Tools and Integrations

Tags

Product Ideas

Meetups

Write for DOnations

Droplets for Demos

Hatch Startup Program

Shop Swag

Research Program

Open Source

Code of Conduct

Contact

Get Support

Trouble Signing In?

Sales

Report Abuse

System Status