

We are going to install **Jenkins** on **Linux**, the following guide is build on a VM-based **ubuntu 18.04 LTS** system.

Pre-installation check:

In order to play with Jenkin, you have to make sure **Java8** is installed. In our project, we also need **python 3.7**

There twos are pre-installed, therefore, we won't re-iterate it here again.

To check if you have Java8 or not, type **java -version** in your terminal

```
student@ubuntu:~$ java -version
openjdk version "1.8.0_242"
OpenJDK Runtime Environment (build 1.8.0_242-8u242-b08-0ubuntu3-18.04-b08)
OpenJDK 64-Bit Server VM (build 25.242-b08, mixed mode)
```

To check if you have python3 or not, type **python3** in your terminal:

```
student@ubuntu:~$ python3
Python 3.6.9 (default, Nov 7 2019, 10:44:02)
[GCC 8.3.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

Install jenkins on ubuntu:

The details description can be found from Jenkins official website here:

<https://www.jenkins.io/doc/book/installing/#debianubuntu>

or by the youtube tutorials here:

<https://www.youtube.com/watch?v=rgai3yzRsA0>

However, you just need to follow the following main steps we extracted from the site.

```
wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo apt-key add -
sudo sh -c 'echo deb https://pkg.jenkins.io/debian-stable binary/ > \
/etc/apt/sources.list.d/jenkins.list'
sudo apt-get update
sudo apt-get install jenkins
```

Snapshot of running above command:

```
student@ubuntu:~$ wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo apt-key add -
[sudo] password for student:
OK
student@ubuntu:~$
```

```
student@ubuntu:~$ sudo sh -c 'echo deb https://pkg.jenkins.io/debian-stable binary/ > \
> /etc/apt/sources.list.d/jenkins.list'
student@ubuntu:~$ sudo apt-get update
Get:1 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]
Hit:2 http://ppa.launchpad.net/webupd8team/java/ubuntu bionic InRelease
Ign:3 https://pkg.jenkins.io/debian-stable binary/ InRelease
```

```
Reading package lists... Done
student@ubuntu:~$ sudo apt-get install jenkins
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  daemon net-tools
The following NEW packages will be installed:
  daemon jenkins net-tools
0 upgraded, 3 newly installed, 0 to remove and 541 not upgraded.
Need to get 65.9 MB of archives.
After this operation, 67.6 MB of additional disk space will be used.
Do you want to continue? [Y/n] yes
Get:1 http://us.archive.ubuntu.com/ubuntu bionic/universe amd64 daemon amd64 0.6.4-1build1 [99.5 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu bionic/main amd64 net-tools amd64 1.60+git20161116.90da8a0-1ubuntu1 [194 kB]
Get:2 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.235.1 [65.6 MB]
Fetched 65.9 MB in 27s (2,420 kB/s)
Selecting previously unselected package daemon.
(Reading database ... 246762 files and directories currently installed.)
Preparing to unpack .../daemon_0.6.4-1build1_amd64.deb ...
Unpacking daemon (0.6.4-1build1) ...
Selecting previously unselected package net-tools.
Preparing to unpack .../net-tools_1.60+git20161116.90da8a0-1ubuntu1_amd64.deb ...
Unpacking net-tools (1.60+git20161116.90da8a0-1ubuntu1) ...
Selecting previously unselected package jenkins.
Preparing to unpack .../jenkins_2.235.1_all.deb ...
Unpacking jenkins (2.235.1) ...
Setting up daemon (0.6.4-1build1) ...
Setting up net-tools (1.60+git20161116.90da8a0-1ubuntu1) ...
Setting up jenkins (2.235.1) ...
Processing triggers for systemd (237-3ubuntu10.38) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
Processing triggers for ureadahead (0.100.0-21) ...
student@ubuntu:~$
```

Now, we are **done** with Jenkins Installation! Let's check if it works

Start Jenkins Service

To see if Jenkins is correctly installed, let us start the Jenkins Service.

You can start the Jenkins service with the command:

```
sudo systemctl start jenkins
```

You can check the status of the Jenkins service using the command:

```
sudo systemctl status jenkins
```

Snapshot of running above command:

```
student@ubuntu:~$ sudo systemctl start jenkins
student@ubuntu:~$ sudo systemctl status jenkins
● jenkins.service - LSB: Start Jenkins at boot time
   Loaded: loaded (/etc/init.d/jenkins; generated)
   Active: active (exited) since Mon 2020-07-06 16:08:17 CEST; 6min ago
     Docs: man:systemd-sysv-generator(8)
    Tasks: 0 (limit: 9464)
   CGroup: /system.slice/jenkins.service

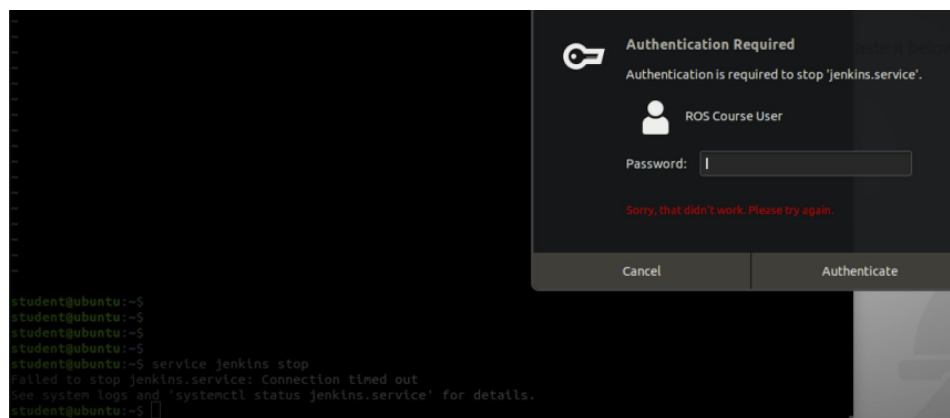
Jul 06 16:08:16 ubuntu systemd[1]: Starting LSB: Start Jenkins at boot time...
Jul 06 16:08:16 ubuntu jenkins[4073]: Correct java version found
Jul 06 16:08:16 ubuntu jenkins[4073]: * Starting Jenkins Automation Server jenk
Jul 06 16:08:16 ubuntu su[4114]: Successful su for jenkins by root
Jul 06 16:08:16 ubuntu su[4114]: + ??? root:jenkins
Jul 06 16:08:16 ubuntu su[4114]: pam_unix(su:session): session opened for user j
Jul 06 16:08:16 ubuntu su[4114]: pam_unix(su:session): session closed for user j
Jul 06 16:08:17 ubuntu jenkins[4073]: ...done.
Jul 06 16:08:17 ubuntu systemd[1]: Started LSB: Start Jenkins at boot time.
```

The detailed descriptions of start, check and stop Jenkins service can be found from Jenkins official website here: <https://www.jenkins.io/doc/book/installing/>

Stop Jenkins Service

You can stop the Jenkins service with the command:

```
service jenkins stop
```



type your user password to stop the service

If you check the status of the Jenkins service, you will see below:

```
student@ubuntu:~$ service jenkins stop
student@ubuntu:~$ sudo systemctl status jenkins
● jenkins.service - LSB: Start Jenkins at boot time
   Loaded: loaded (/etc/init.d/jenkins; generated)
   Active: inactive (dead) since Mon 2020-07-06 16:39:02 CEST; 2s ago
     Docs: man:systemd-sysv-generator(8)
  Process: 2284 ExecStop=/etc/init.d/jenkins stop (code=exited, status=0/SUCCESS)
  Process: 818 ExecStart=/etc/init.d/jenkins start (code=exited, status=0/SUCCESS)
```

Connect to localhost to see Jenkins Dashboard

Authentication for first time connection:

If you are the first time to connect to Jenkins dashboard, it will ask your password.

Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password is generated and stored in 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.

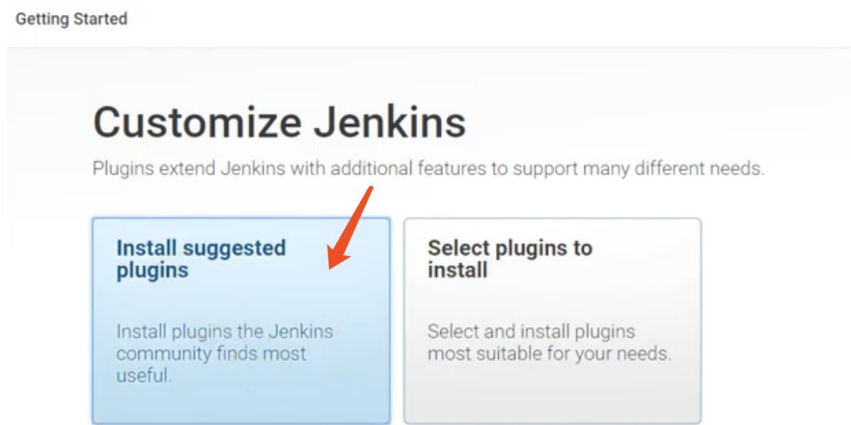
Administrator password

Just follow what it instructed by typing the command at the terminal:

```
student@ubuntu:~$ sudo cat /var/lib/jenkins/secrets/initialAdminPassword
[sudo] password for student:
f14e1ee0552b4a378a1069be2786496a
```

Configuration on Jenkins

Once it succeed, you will be able to see this:



Now the plugins are getting to be installed:

