# Open JDK

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# Introduction

This page is based on experience of setting up the Open JDK 8 on Ubuntu 14.04.  Much of it may be applicable to other Java versions and distros.

# Installation

Run the following commands in order to install or update the Open JDK 8.

```
sudo add-apt-repository ppa:openjdk-r/ppa
sudo apt-get update
sudo apt-get install openjdk-8-jdk
```

## Plugin

In this example the Mozilla plugin is missing. This is not a big problem if you don't want to use for security reason.

In case you want to install it, here is the procedure to get it. At the time we wrote this guide the icedtea-8-plugin is not available in the standard repository.

```
sudo add-apt-repository ppa:maarten-fonville/ppa
sudo apt-get update
sudo apt-get install icedtea-8-plugin
```

As we installed a new java component we need to re-run the **update-java-alternatives** command:

```
sudo update-java-alternatives -s java-8-openjdk-i386
```

Some problem can happen depending the sequence and the way you try to achieve this task. I face some issues with missing or wrong symbolic link.

Here is the output of our **/usr/lib/jvm** directory :

```
user@machine:~$ cd /usr/lib/jvm
user@machine:/usr/lib/jvm$ ls -al
total 88
drwxr-xr-x   6 root root  4096 Apr 19 15:39 .
drwxr-xr-x 210 root root 53248 Mar 31 07:41 ..
lrwxrwxrwx   1 root root    23 Apr 19 15:39 default-java -> java-1.8.0-openjdk-i386
lrwxrwxrwx   1 root root    19 Mar  5  2013 java-1.6.0-openjdk-i386 -> java-6-openjdk-i386
-rw-r--r--   1 root root  2345 Jan 26 23:05 .java-1.6.0-openjdk-i386.jinfo
lrwxrwxrwx   1 root root    19 Apr  8  2014 java-1.7.0-openjdk-i386 -> java-7-openjdk-i386
-rw-r--r--   1 root root  2396 Mar 24 16:46 .java-1.7.0-openjdk-i386.jinfo
lrwxrwxrwx   1 root root    19 Jan 29 06:25 java-1.8.0-openjdk-i386 -> java-8-openjdk-i386
-rw-r--r--   1 root root  2501 Jan 29 06:25 .java-1.8.0-openjdk-i386.jinfo
drwxr-xr-x   3 root root  4096 Mar 12  2013 java-6-openjdk-common
drwxr-xr-x   7 root root  4096 Feb 13 09:18 java-6-openjdk-i386
drwxr-xr-x   7 root root  4096 Mar 25 07:59 java-7-openjdk-i386
drwxr-xr-x   7 root root  4096 Apr 19 13:04 java-8-openjdk-i386
lrwxrwxrwx   1 root root    30 Apr 19 15:28 .java-8-openjdk-i386.jinfo -> .java-1.8.0-openjdk-i386.jinfo
```

The **default-java** should be linked with your desired JVM and also a **.default-java.jinfo** should be linked as well to your desired JVM **jinfo** file.

The command **update-java-alternatives** complained also with a missing **.java-8-openjdk-i386.jinfo** file. I created an appropriate link towards the existing **.java-1.8.0-openjdk-i386.jinfo** file.

# Java Source

When I've installed the Open JDK 8 I realized that the Java source code was not available. Usually below you **default-java** directory you should see a **src.zip** file. In my case the **src.zi**p file was a reported broken link towards **../openjdk-8/src.zip**.

Run the following command :

```
sudo apt-get install openjdk-8-source
```

While installing a java component the command can give a few hints :

```
user@machine:~$ sudo apt-get install openjdk-8-source
[sudo] password for user:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  linux-headers-3.13.0-79 linux-headers-3.13.0-79-generic
  linux-image-3.13.0-79-generic linux-image-extra-3.13.0-79-generic
Use 'apt-get autoremove' to remove them.
The following extra packages will be installed:
  openjdk-8-jdk openjdk-8-jdk-headless openjdk-8-jre openjdk-8-jre-headless
Suggested packages:
  openjdk-8-demo visualvm openjdk-8-jre-jamvm fonts-ipafont-gothic
  fonts-ipafont-mincho ttf-telugu-fonts ttf-oriya-fonts ttf-kannada-fonts
  ttf-bengali-fonts
The following NEW packages will be installed:
  openjdk-8-jdk-headless openjdk-8-source
The following packages will be upgraded:
  openjdk-8-jdk openjdk-8-jre openjdk-8-jre-headless
3 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 81.2 MB of archives.
After this operation, 52.1 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

In that case an **sudo apt-get autoremove** is suggested and additional packages are also suggested.

We have also an idea of the openjdk-8-source estimated size of 52,1 MB. Once installed I got a new directory below my **/usr/lib/jvm** directory. The **openjdk-8** directory exists and contains the needed **src.zip** file thus fixing the reported broken link.

Enjoy