

Ubuntu 18.04 – Instructions for Installation:

Open-JDK 1.8:

- Update the package list first
 - `>sudo apt update`
 - `>sudo apt install openjdk-8-jdk`
 - `>java -version`

Set JAVA_HOME environment variable:

- Update JAVA_HOME variable in your .bashrc profile file to point to JDK 1.8
 - First check the location of the installed JDK1.8 (by default it gets installed in the location `/usr/lib/jvm/java-8-openjdk-amd64/`)
 - `>vi ~/.bashrc`
 - Go to the end of the file and add the following line
 - `Export JAVA_HOME=/usr/lib/jvm/java-8-openjdk-amd64/`
 - Save and exit
 - Refresh the session to get JAVA_HOME env variable and check if it got loaded correctly
 - `>source ~/.bashrc`
 - `>echo $JAVA_HOME`

Git Client:

- `sudo apt update`
- `>sudo apt install git`
- `>git --version`

Maven 3.6 or any other latest version:

- `sudo apt update`
- `sudo apt install maven`
- `mvn -version`

Jenkins 2.X:

- Add Jenkins repository key to the system, update and then install Jenkins
 - `>wget -q -O - https://pkg.jenkins.io/debian/jenkins.io.key | sudo apt-key add -`
 - `>sudo sh -c 'echo deb http://pkg.jenkins.io/debian-stable binary/ > /etc/apt/sources.list.d/jenkins.list'`
 - `>sudo apt update`
 - `>sudo apt install Jenkins`
 - Start Jenkins Service
 - `>sudo systemctl start jenkins`
 - At any time, to check on Jenkins service status
 - `>sudo systemctl status Jenkins`
 - To stop Jenkins service
 - `>sudo systemctl stop jenkins`

Docker CE:

- Update apt package manager list
- `>sudo apt-get update`
- `>sudo apt-get install apt-transport-https ca-certificates curl gnupg-agent \ software-properties-common`
- Add Docker GPG Keys
- `>curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -`
- `>sudo apt-key fingerprint 0EBFCD88`

```
• pub  rsa4096 2017-02-22 [SCEA]
•      9DC8 5822 9FC7 DD38 854A E2D8 8D81 803C 0EBF CD88
• uid          [ unknown] Docker Release (CE deb) <docker@docker.com>
• sub  rsa4096 2017-02-22 [S]
```

- `>sudo add-apt-repository \ "deb [arch=amd64] https://download.docker.com/linux/ubuntu \ $(lsb_release -cs) stable"`
- Update apt package manager index
- `>sudo apt-get update`
- `> sudo apt-get install docker-ce docker-ce-cli containerd.io`
- `> sudo systemctl start docker`
- Add present user to docker user group so that they have required permissions to launch docker containers
- `>sudo usermod -aG docker $USER`
- Either logout and open a new terminal so that the user group permissions take effect or run the following command to activate changes to the group
- `> newgrp docker`
- Verify if you can launch docker without having to sudo
- `>docker --version`
- `>docker run --it hello-world`