

Jenkins Installation

Installation Methods

- 1. apt-get
- 2. Jenkins war file

Jenkins Installation using “apt”

Install Java , Tomcat, Maven

Step-1: This is the Debian/Ubuntu package repository of Jenkins to automate installation and upgrade. To use this repository, first add the key to your system:

- # wget -q -O - <https://pkg.jenkins.io/debian-stable/jenkins.io.key> | sudo apt-key add –

Jenkins Installation

Step-2 : Then add the following entry in your /etc/apt/sources.list:

```
deb https://pkg.jenkins.io/debian-stable binary/
```

Step-3 : Update your local package index, then finally install Jenkins:

```
#sudo apt-get update
```

```
#sudo apt-get install jenkins
```

Start Service

#service jenkins start

Open Browser → <http://localhost:8080>

Jenkins Installation using “war”

- i) Install tomcat Server
- ii) Download jenkins.war file
- iii) deploy jenkins.war in tomcat/webapps
- iv) start tomcat service
- v) browser --->
<http://localhost:8080/jenkins>

Git Project

- 1) install git in machine (Server)

```
#apt-get update
```

```
#apt-get install git-core -y
```

- 2) add git path

```
jenkins --> manage jenkins
```

```
--> Global tool Configuration
```

```
Name : git
```

```
path : /usr/bin/git --> save
```

- 3) New item --> Name : git_demo --> ok

```
select "Source code management"
```

```
select "Git" --> provide git Hub URL for a Repo.
```

```
--> save and build
```

ANT Proj

- 1) select new item (ant-proj) --> select "free style"**
- 2) provide a Git path in Source Code Management**
- 3) select 'Manage Jenkins' --> 'Global tool config'**
add Home_dir for JDK , ANT
- 4) 'Build' --> select 'invoke ant' --> select Ant Version
--> save & build**

MAVEN Proj

- 1) select new item (mvn-proj) --> select "free style"**
- 2) provide a Git path in Source Code Management**
- 3) select 'Manage Jenkins' --> 'Global tool config'
add Home_dir for MAVEN**
- 4) 'Build' --> select 'invoke top level maven target'
--> provide Maven version : mvn 3.3
goal : compile
--> save & build**

to Add Plugins:

**Manage Jenkins --> Manage plugins --> Available
search for Maven integration plugin
--> select "install without restart"**

- 1) select new item (mvn-pack) --> select "maven proj"**
- 2) provide a Git path in Source Code Management**
 - 3) 'Build' --> goal : package**
 - 4) select "post steps" --> select "run only if build success"**
 - Execute shell -->**
 - cp /root/.jenkins/workspace/mvn_pack/target**
 - /javaee7-simple-sample.war**
 - /opt/apache-tomcat-9.0.0.M15/webapps/**
 - echo "Application Deployed"**

Jenkins slave :

Step-1 : #sudo su -

```
#vi /etc/ssh/sshd_config  
    permit_rootlogin = yes  
#service ssh restart  
#passwd root <----- provide 'root' passwd
```

Step-2 : install java

```
#apt-get install openjdk-7-jdk -y  
#java -version  
#mkdir /tmp/jenkins
```

(Master)

Step-3 : #ssh-keygen

```
#ssh-copy-id root@192.168.33.61 (slave ip)  
#ssh root@192.168.33.61 (slave ip)
```

Build Pipe Line

- 1) select "Manage Jenkins" --> "Manage Plugins"
select "Available" --> select "Build Pipe Line Plugin"

- 2) select the Project --> "Configure"
Post Build Actions --> select "Build other Projects" ->
save

- 3) select (+) in all Projects
View Name : pipe_view
select Build pipe line view --> ok
"select Initial Job" : slave_init --> ok

java path:

```
-----  
#export JAVA_HOME=/opt/jdk1.8.0_121  
#export PATH=$JAVA_HOME/bin:$PATH
```

tomcat path

```
-----  
#export CATALINA_HOME=/opt/apache-tomcat-8.5.12  
#export PATH=$CATALINA_HOME/bin:$PATH
```

Maven Path

```
-----  
#export M2_HOME=/opt/apache-maven-3.3.9  
#export PATH=$M2_HOME/bin:$PATH
```

ANT path

```
-----  
#export ANT_HOME=/opt/apache-ant-1.10.1  
#export PATH=/opt/apache-ant-1.10.1/bin:$PATH
```

Sonatype Nexus Installation

download jdk1.8 (from www.oracle.com/downloads....)

download nexus-3.x (from www.sonatype.com/download..)

```
$ tar -xzf jdk1.8....
```

```
$ tar -xzf nexus-3.x....
```

```
$ vi .profile
```

```
    export JAVA_HOME="/opt/jdk1.8.0_121"
```

```
    export PATH=$JAVA_HOME/bin:$PATH
```

```
$ source .profile
```

```
$ cd nexus-3.x../bin/
```

```
$ ./nexus run
```

Browser ---> <http://192.168.x:8081>