**JENKINS SETUP FOR EC2**

**PREREQUISITES;**

**1.JDK 1.8**

**2. MAVEN**

**3. GIT**

**4. Jenkins**

1. **JDK 8 Setup.**

**#Use the following commands**

yum install -y java-1.8.0-openjdk-devel.x86\_64;

1. **MAVEN setup**

**#Use the following commands**

sudo wget [https://repos.fedorapeople.org/repos/dchen/apache-maven/epel-apache-maven.repo -O /etc/yum.repos.d/epel-apache-maven.repo](https://repos.fedorapeople.org/repos/dchen/apache-maven/epel-apache-maven.repo%20-O%20/etc/yum.repos.d/epel-apache-maven.repo);

sudo sed -i s/\$releasever/6/g /etc/yum.repos.d/epel-apache-maven.repo;

sudo yum install -y apache-maven;

**#set the java version using following commands:**

#When prompted, enter the number for Java 8

sudo /usr/sbin/alternatives --config java;

sudo /usr/sbin/alternatives --config javac;

1. **GIT setup**

**#Use the following commands**

yum install -y git;

1. **Jenkins Setup:**

**#Use the following commands**

sudo wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat-stable/jenkins.repo;

sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io.key;

yum install -y jenkins;

1. **Configure Jenkins**

**#Use the following commands.**

service jenkins start;

**#To get IP address.**

curl ifconfig.co;

**# Go to Browser: To access jenkins**

<http://ipaddress:8080/> #

13.234.17.210:8080

enter the jenkins secret password (see below note section)

Note:

**#To get the password use the following command**

cat /var/lib/jenkins/secrets/initialAdminPassword

1. **Install Jenkins Plugins**

1. Click on install suggested plugins. (#takes some time to install, may be 5 min..)

2. Enter new Username, Password as “test” and email as “gsaryash@gmail.com” when asked

3. click on save and continue.

That’s It Jenkins Loaded..!!

**For Deployments:**

**Install plugin:** Deploy to container

Click on manage jenkins > click on manage plugins > click on Available > search for **Deploy to container** plugin and then Install it.

1. **Jenkins Configuration**

vi /etc/sysconfig/jenkins

JENKINS\_HOME="/var/lib/jenkins"

JENKINS\_USER="jenkins"

JENKINS\_PORT="8080"

above parameters are important.

In Jenkins page

# **Manage Jenkins**

[[manage-option](http://52.66.96.172:8080/configure)](http://52.66.96.172:8080/configure" \o "Configure System)

**[Configure System](http://52.66.96.172:8080/configure" \o "Configure System)**

Home directory /var/lib/jenkins

# of executors 2

Jenkins Location

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Jenkins URL http://52.66.96.172:8080/

System Admin e-mail address

E-mail Notification

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SMTP server

Default user e-mail suffix

**Configure Global Security**

**Security Realm**

Jenkins’ own user database

**Authorization**

Logged-in users can do anything

**Global Tool Configuration**

1. **JDK**

JDK installations

Name Java8

JAVA\_HOME /usr/lib/jvm/java-1.8.0-openjdk.x86\_64

/usr/lib/jvm/java-1.8.0-openjdk.x86\_64

In putty

which java

cd /usr/lib/java

ll

cd ../jvm

ll

cd java-1.8.0-openjdk.x86\_64

ls

pwd

/usr/lib/jvm/java-1.8.0-openjdk.x86\_64

1. Git
2. Maven

Maven installations

Name Maven

Install from apache

Version 3.6.1

**In dashboard**

Please [**create new jobs**](http://52.66.96.172:8080/newJob) to get started

Enter an item name “Demo”

Select “freestyle project”

<https://github.com>

login details

**Source Code Management**

**Git**

<https://github.com/GSaritha16/Hello.git>

<https://github.com/raghuopsdev/hello-world.git>

https://github.com/princeanurag2011/myproject.git

|  |  |  |  |
| --- | --- | --- | --- |
| **Build Triggers** | | | |
| Build periodically | | | [Help for feature: Build periodically](http://13.234.17.210:8080/job/Demo/configure) |
|  |  | |  |
|  |  |  |  |
|  | Schedule |  |  |

|  |  |
| --- | --- |
| **Build Environment** | |
| Delete workspace before build starts |  |

|  |
| --- |
| **Build** |
| |  |  |  |  | | --- | --- | --- | --- | | **Invoke top-level Maven targets** | | | [[Help]](http://13.234.17.210:8080/job/Demo/configure) | |  |  | |  | |  | Maven Version |  |  | |  | |  |  | |  | Goals | |  | | --- | |  |   Clean install |  | |

|  |
| --- |
| **Post-build Actions** |
| |  |  |  |  | | --- | --- | --- | --- | | **Deploy war/ear to a container** | | |  | |  | WAR/EAR files |  | [Help for feature: WAR/EAR files](http://13.234.17.210:8080/job/Demo/configure) | |  | |  |  | |  |  | |  | |  | Context path |  | [Help for feature: Context path](http://13.234.17.210:8080/job/Demo/configure) | |  | |  |  | |  |  | |  | |  | Containers | |  |  |  |  | | --- | --- | --- | --- | | **Tomcat 7.x Remote** | | |  | |  | Credentials | Add   * Jenkins |  | |  | |  |  | |  | Tomcat URL | http://13.234.17.210:9080 |  | |  | |

1. **Install Tomcat**

yum install -y tomcat7 tomcat7-webapps tomcat7-admin-webapps

cd /etc/tomcat7/

vi tomcat-users.xml

<role rolename="admin"/>

<role rolename="admin-gui"/>

<role rolename="admin-script"/>

<role rolename="manager"/>

<role rolename="manager-gui"/>

<role rolename="manager-script"/>

<role rolename="manager-jmx"/>

<role rolename="manager-status"/>

<user name="admin" password="adminadmin" roles="admin,manager,admin-gui,admin-script,manager-gui,manager-script,manager-jmx,manager-status" />

vi server.xml

Define a non-SSL HTTP/1.1 Connector on port 8080

-->

<Connector port="9080" protocol="HTTP/1.1"

connectionTimeout="20000"

redirectPort="8443" />

service tomcat7 restart

curl ifconfig.co

<http://13.234.17.210:9080/>

managerAPP click => <http://13.234.17.210:9080/manager/html>

managerAPP => abc => <http://13.234.17.210:9080/abc/>

**Client**

**Create another EC2 machine for client**

Jenkins machine

* **Generate Key**

cd /root/.ssh/ => to generate key

ssh-keygen

id\_rsa => file name to be generate

cat id\_rsa.pub = copy the key

ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQDaK9jWpgkos+kD68DFdBQOQAQ16/LIlzEtRrhZIw6MXwMhQHp8jdxbGRaUUmuOq6AXzTwnKHcIOW6AnArLlbXSVORMQF3cXL4zo7fLxL++GSILaf2nOWspiVVp/4IJwXbhFP+QziLMc9ZvmeYrjfHgRKsrEysqJ+E97uPTRxXhT9rB59sy3cubNAzOGI6Y+VsDei4jc3Zvi8lAKgmALt7jD/RfNQ+uPjAAQCQFfnuK5RpKhDT3m6TTM4/7J8t6M1fagryYliSWfGG9ugSXr1+emO+ee1B5WvwsBUA52D5XvX8QVC5LCZxLtwPv6GnnGlzimqOm5qLjlrXZxoB46loB root@ip-172-31-39-96

**Hosts**

cd /root/.ssh/

vi authorized\_keys = paste the key of controller

cd /etc/ssh

vi sshd\_config

uncomment PermitRootLogin yes

service sshd restart

yum install -y tomcat7 tomcat7-webapps tomcat7-admin-webapps

cd /etc/tomcat7/

vi tomcat-users.xml

<role rolename="admin"/>

<role rolename="admin-gui"/>

<role rolename="admin-script"/>

<role rolename="manager"/>

<role rolename="manager-gui"/>

<role rolename="manager-script"/>

<role rolename="manager-jmx"/>

<role rolename="manager-status"/>

<user name="admin" password="adminadmin" roles="admin,manager,admin-gui,admin-script,manager-gui,manager-script,manager-jmx,manager-status" />

service tomcat7 restart

curl ifconfig.co

<http://13.232.227.82:8080>

In dashboard

Please create new jobs to get started

Enter an item name “Demo1”

Select “freestyle project”

https://github.com

login details

Source Code Management

Git

https://github.com/princeanurag2011/myproject.git

Build Triggers

Build periodically

Schedule **H/5 \* \* \* \***

Build Environment

Delete workspace before build starts

Build

Invoke top-level Maven targets

Maven Version

Goals Clean install

Post-build Actions

Deploy war/ear to a container

WAR/EAR files \*\*/\*.war

Context path xyz

Containers Tomcat 7.x Remote

Tomcat URL http://13.233.104.244:8080