**Jenkins Installation**

**Prerequisites**

Java should be installed v1.8.X (greater than v1.8)

Security group open to port 8080

**$ yum -y install java-1.8.0-openjdk / $ yum -y install java-1.8\***

**$ java -version**

**$ find usr/lib/jvm/java-1.8\* | head -n 3**

**$ vi .bash\_profile -> i -> esc -> :wq!**

in bash profile setup the JAVA\_HOME path

then PATH=xx:$JAVA\_HOME:xxx

**$ yum install -y wget**

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

**$ rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io.key**

**$ yum -y install jenkins**

**$ jenkins –version**

**$ service jenkins start / $ systemctl start jenkins**

**$ service jenkins status / $ systemctl status jenkins**

**$ service jenkins stop / $ systemctl stop jenkins**

**Jenkins master/slave configuration**

**Step 1: Setup Jenkins Slave**

install java on the slave server and update the java path in bash\_profile

**# useradd jenkins-slave-01** (add one user)

**# sudo su – jenkins-slave-01** (make that user super user)

**# ssh-keygen -t rsa -N “” -f /home/jenkins-slave-01/.ssh/id\_rsa** (the private and public key will be stored in that location)

**# cd .ssh** (move to .ssh directory)

**# cat id\_rsa.pub > authorized\_keys** (copy the contents of public keys to authorized keys)

**# chmod 700** **authorized\_keys** (make it secured from read and write)

**Step 2: Configuration on master**

Copy the slave node public key **id\_rsa.pub** to master node’s **known\_hosts**

**# mkdir -p /var/lib/jenkins/.ssh** (make a directory .ssh in jenkins)

**# cd /var/lib/jenkins/.ssh**  (move to that directory)

**# ssh-keyscan -H private-ip ec2 >> /var/lib/jenkins/.ssh/known\_hosts** (copy that key in to known\_hosts)

**# chown jenkins:jenkins known\_hosts** (change the ownership of the file)

**# chmod 700 known\_hosts** (make it secured from read and write)

**Step 3: On jenkins master**

**Manage jenkins** -> **Manage nodes** -> **New node**

**Node Name**: xxxxx

Select permanent agent and hit ok

**Description:** describe about your node

**# of executors:** number of jobs to run simultaneously

**Remote Root Directory:** it should be the directory in the slave node where jenkins must work

**Labels:** label for a group of nodes

**Usage:** use this node as much as possible (for better performance)

**Launch method:** launch agent agents via SSH

**Host:** ec2 slave instance private ip address

**Credentials:** add -> jenkins

**Domain:** Global credentials

**Kind:** SSH username with private key

**Scope:** Global

**Username:** jenkins-slave-01 (the user which we created)

**Private Key** -> Enter Directly

Go to slave server ( in .ssh directory **#more id\_rsa** and copy this here)

**Passphrase:** if any

**ID:** --

**Description:** --

**ADD**

**Credentials:** jenkins-slave-01

**SAVE**

**1. Plugin Management**

**2. Global System Configuration**

**-Environmental variables**

**3. Global Tool Configuration**

**4. Node Configuration**

**-Remote Root Directory**

**-Executors**

**-Tools/Environmental Variables**

**5. Job Configuration**

**-When to run (scheduled^ / on demand)**

**-Where to run (on which machine job must run)**

**-What to run (which job must run)**

**^(CRON : minute hour DOM MOY DOW) (\* \* \* \* \*) which means it runs for a minute**

**When to run ( free style -> build triggers -> build periodically)**

**What to run ( free style -> build -> script)**

**Where to run (free style -> general -> restrict where to run -> label expression)**