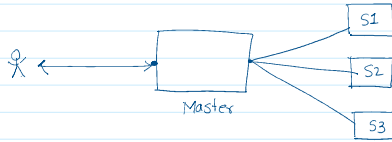


31.30Jul.Jenkins(Master Slave)

Sunday, July 30, 2023 4:36 PM

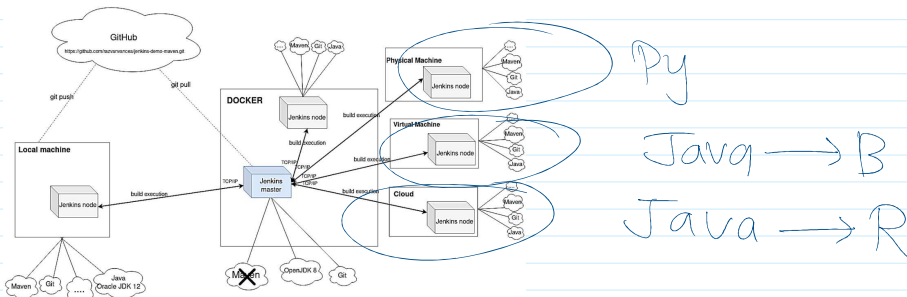


Master

- Acts to schedule the jobs
- Assign slave's
- Send build to Slaves to execute the Jobs.
- Monitor slave (offline/online)

Benefits

- distributed build
- Faster thought
- Quicker Feedback.
- Scalable Architecture.



Type	Name	Public IP	Private IP
Master	master	13.127.223.212	172.31.9.241
Slave1	slave1		

Master Node:

\$ sudo su -

```
# apt update
# apt install openjdk-11-jdk -y
# java -version
# javac -version
```

cat >> /etc/hosts

```
172.31.9.241 master
172.31.12.64 slave1
```

```
# hostname master
# bash
```

```
# curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee \
/usr/share/keyrings/jenkins-keyring.asc > /dev/null
```

```
# echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \
https://pkg.jenkins.io/debian-stable/binary/ | sudo tee \
/etc/apt/sources.list.d/jenkins.list > /dev/null
```

```
# apt update && apt install jenkins -y
```

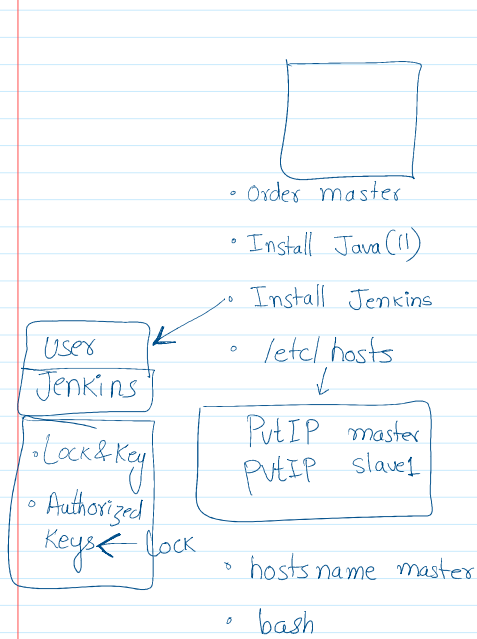
```
# systemctl status jenkins && systemctl enable jenkins
```

SLAVE1:

```
$ sudo su -
# apt update
# apt install openjdk-11-jdk -y
# java -version
# javac -version
# cat << EOF >> /etc/hosts
###jenkins-Master Slave
172.31.9.241 master
172.31.12.64 slave1
EOF

# useradd -m -s /bin/bash jenkins

# su - jenkins
```

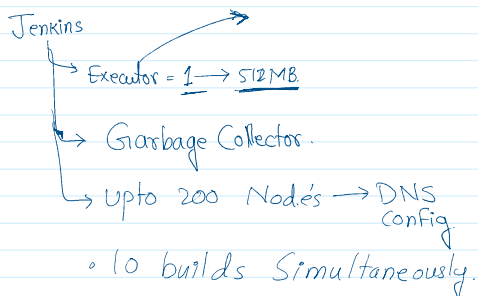


```
ssh-keygen -b 3072 -t rsa -f ~/.ssh/nubeera_lock_key -q -N ""
mv nubeera_lock_key nubeera_key && mv nubeera_lock_key.pub nubeera_lock.pub
chmod 400 nubeera_key
```

```
sudo bash -c 'cat << EOF > /var/lib/jenkins/.ssh/config
Host *
  User jenkins
  IdentityFile /var/lib/jenkins/.ssh/nubeera_key
EOF'
```

```
cat ~/.ssh/nubeera_lock.pub | cat >> ~/.ssh/authorized_keys
```

```
curl ifconfig.me
ip -4 addr show eth0 | grep -oP '(?<=inet)([d+\.]+[d+])?[3]'
```



4 Physical Slave's

• 64 Core 7

4 Physical Slave's

- 64 Core
- 128GB
- 2TB

53
slave's

JenkinsX

Jenkins

- + Single Node
- + Monolithic Installation
- + Self hosted Platform + MN

30%

Blue
Ocean

JenkinsX

K8S

API

API

```
curl ifconfig.me
ip -4 addr show eth0 | grep -oP '(?=<inet(s)\d+(\.\d+){3})'

Type                PublicIP                PrivateIP
master               65.2.124.238           172.31.38.40
slave1               65.2.38.115            172.31.35.46

MASTER MACHINE
=====
$ sudo su -
# apt update && apt install openjdk-11-jdk -y
# java -version
# javac -version

# curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee \
  /usr/share/keyrings/jenkins-keyring.asc > /dev/null

# echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \
  https://pkg.jenkins.io/debian-stable/binary/ | sudo tee \
  /etc/apt/sources.list.d/jenkins.list > /dev/null

# apt update && apt install jenkins -y

# systemctl status jenkins && systemctl enable jenkins

# cat<< EOF >> /etc/hosts

###Jenkins-Master Slave
172.31.38.40      master
172.31.35.46     slave1

EOF

su - jenkins

ssh-keygen -b 3072 -t rsa -f ~/.ssh/nubeera_lock_key -q -N ""
mv kubeera_lock_key kubeera_key && mv kubeera_lock_key.pub kubeera_lock.pub
chmod 400 kubeera_key
cat ~/.ssh/nubeera_lock.pub | cat >> ~/.ssh/authorized_keys
Copy From Master cat ~/.ssh/nubeera_lock.pub and Paste to slave1 cat >> ~/.ssh/authorized_keys

sudo bash -c 'cat<< EOF > /var/lib/jenkins/.ssh/config
Host *
  User jenkins
  IdentityFile /var/lib/jenkins/.ssh/nubeera_key
EOF'

ssh -i kubeera_key jenkins@slave1
ssh slave1

SLAVE1 MACHINE
=====
$ sudo su -
# apt update
# apt install openjdk-11-jdk -y
# java -version
# javac -version
```

```
# cat<< EOF >> /etc/hosts
###Jenkins-Master Slave
172.31.38.40      master
172.31.35.46      slave1
EOF

# useradd -m -s /bin/bash jenkins

# su - jenkins
$ ssh localhost
$ cd .ssh
$ cat >> authorized_keys
    Upload id_rsa.pub from master to slave( jenkins user ~/.ssh/authorized_keys)

$ exit

# su - jenkins

$ cd .ssh
$ ssh -i id_rsa jenkins@slave1

$ cat > config
Host *
    User jenkins
    IdentityFile /var/lib/jenkins/.ssh/id_rsa

UI Steps
Master --> Slave
    Paste id_rsa --> slave1(~/.ssh/id_rsa)
    Paste id_rsa.pub --> slave1(~/.ssh/authorized_keys)

Manage Jenkins --> Add node
Name: slave1
Check on: "Permanent Agent" option
Click on: 'OK'.

Now type node information details.
Description: slave01 node agent server
Remote root directory: /home/jenkins
Labels: slave01
Launch method: Launch slave agent via SSH, type the host ip address 'SLAVE1 Private IP Address', choose the authentication using 'Jenkins' credential.
```