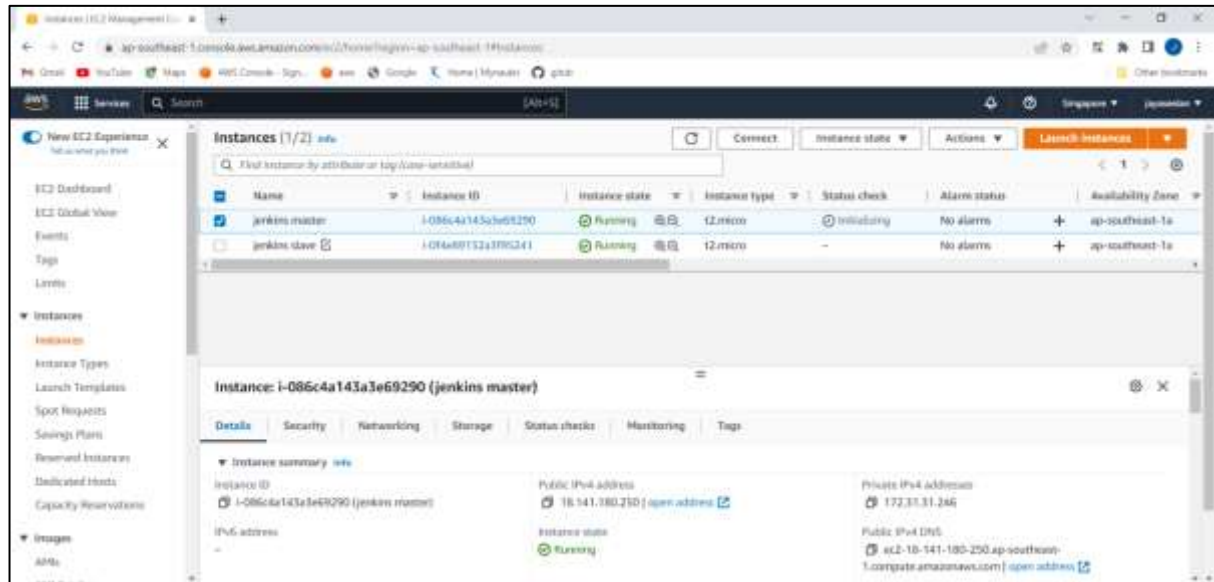


Jenkins master slave architecture

Step1:Launch Two Ec2 Ubuntu Server At A Time

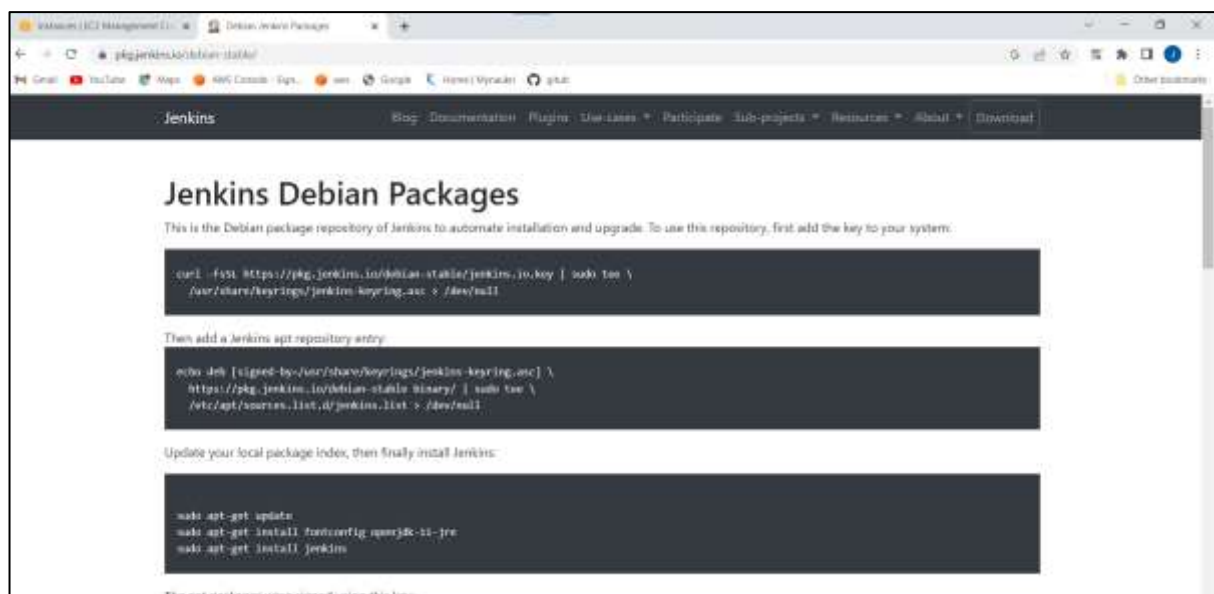
Name 1.jenkins master and 2.jenkins slave --->key(.pem)

Security(all tcp) ----->storage(30gb)---->launch instance



Step2:login jenkins master server using pem key convert ppk

And install java and Jenkins using Ubuntu commands(google--->Jenkins.io -->download-->Ubuntu/debian click--->commands shown that command use

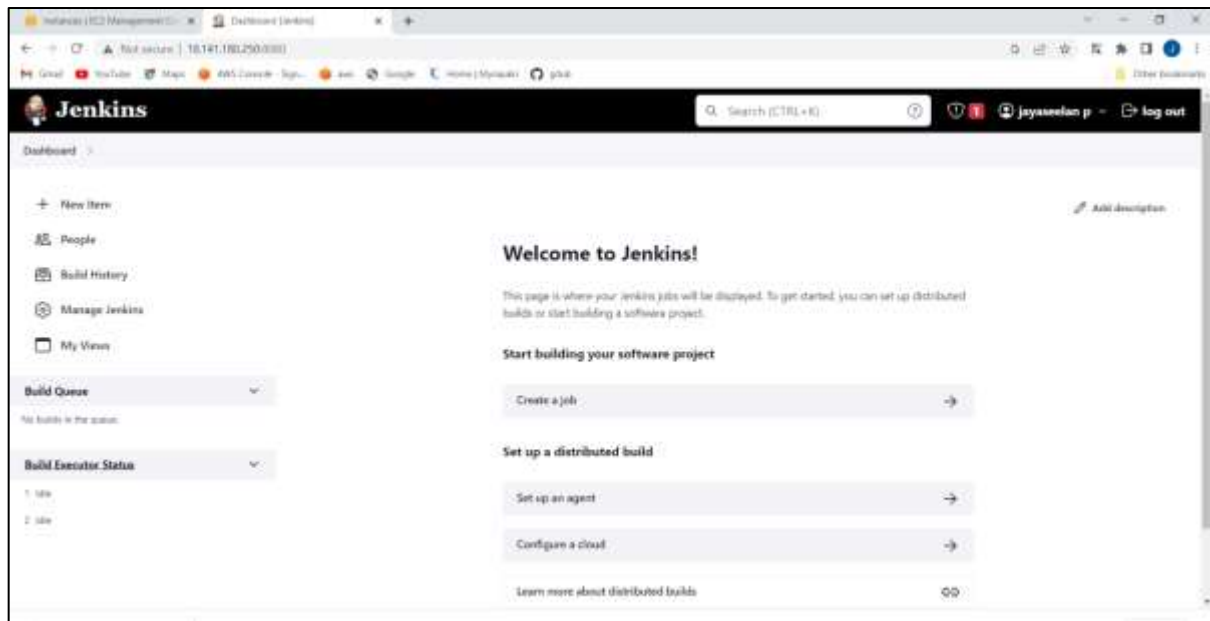


After java and Jenkins install put public ip:8080 put chrome open Jenkins page --> 18.141.180.250:8080

Now password put using

```
#sudo cat /var/lib/jenkins/secrets/initialAdminPassword
```

Set username and password --->continue



Step3:Login Jenkin Slave Server

Install only java ---> `#sudo apt-get install fontconfig openjdk-11-jre`

`#mkdir seelan -->cd seelan --->pwd -->shown current directory location`

```
* Support: https://ubuntu.com/advantage

System information as of Sun Feb 12 06:45:07 UTC 2023

System load: 0.0          Processes: 100
Usage of /: 6.3% of 28.09GB  Users logged in: 0
Memory usage: 30%         IPy4 address for eth0: 172.31.24.195
Swap usage: 0%

* Ubuntu Pro delivers the most comprehensive open source security and
  compliance features.
  https://ubuntu.com/advantage/pro

* Introducing Expanded Security Maintenance for Applications.
  Receive updates to over 25,000 software packages with your
  Ubuntu Pro subscription. Free for personal use.
  https://ubuntu.com/advantage/pro

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

New release '22.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Sun Feb 12 06:31:21 2023 from 157.31.197.171
ubuntu@ip-172-31-24-195:~$ mkdir seelan
ubuntu@ip-172-31-24-195:~$ cd seelan
ubuntu@ip-172-31-24-195:~/seelan$ pwd
/home/ubuntu/seelan
ubuntu@ip-172-31-24-195:~/seelan$
```

Step4:Master Server

#ll --->shown .ssh/

#cd .ssh/ -->ll --->shown authorized_keys

#ssh localhost ---> (yes/no/[fingerprint])? **Yes**

#ll ---->shown known_hosts

```
Last login: Sun Feb 12 06:00:52 2023 from 157.51.197.171
ubuntu@ip-172-31-24-195:~$ ll
total 32
drwxr-xr-x 4 ubuntu ubuntu 4096 Feb 12 06:18 ./
drwxr-xr-x 3 root root 4096 Feb 12 06:18 ../
-rw-r--r-- 1 ubuntu ubuntu 79 Feb 12 06:18 .bash_history
-rw-r--r-- 1 ubuntu ubuntu 220 Feb 25 2020 .bash_logout
-rw-r--r-- 1 ubuntu ubuntu 1771 Feb 25 2020 .bashrc
drwx----- 1 ubuntu ubuntu 4096 Feb 12 06:00 .cache/
-rw-r--r-- 1 ubuntu ubuntu 607 Feb 25 2020 .profile
drwx----- 1 ubuntu ubuntu 4096 Feb 12 06:13 .ssh/
-rw-r--r-- 1 ubuntu ubuntu 0 Feb 12 06:09 .sudo_as_admin_successful
ubuntu@ip-172-31-24-195:~$ cd .ssh/
ubuntu@ip-172-31-24-195:~/.ssh$ ssh localhost
Warning: Permanently added 'localhost' (publickey).
Permission denied (publickey).
ubuntu@ip-172-31-24-195:~/.ssh$ sudo ssh localhost
Warning: Permanently added 'localhost' (publickey).
The authenticity of host 'localhost (127.0.0.1)' can't be established.
ECDSA key fingerprint is SHA256:dRqG8S4h/hH0ff6onjC8f0G8ajllvrogINW8H8Qg.
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added 'localhost' (ECDSA) to the list of known hosts.
root@localhost:~#
ubuntu@ip-172-31-24-195:~/.ssh$
```

Now create two file

#touch id_rsa.pub

#touch id_rsa

Now copy authorized_keys id_rsa.pub

#cp authorized_keys id_rsa.pub

Now copy pem key to --->#vi id_rsa

#chmod 400 *

#ssh localhost --->shown ip in last line

```
ubuntu@ip-172-31-24-195:~$ cat /home/ubuntu/.ssh/id_rsa
It is required that your private key files are NOT accessible by others.
This private key will be ignored.
Load key /home/ubuntu/.ssh/id_rsa: bad permissions
ubuntu@localhost: Permission denied (publickey).
ubuntu@ip-172-31-24-195:~$ ssh id_rsa
Warning: Permanently added 'localhost' (publickey).
root@localhost:~#
ubuntu@ip-172-31-24-195:~$ ll
total 24
drwx----- 2 ubuntu ubuntu 4096 Feb 12 06:40 ./
drwxr-xr-x 4 ubuntu ubuntu 4096 Feb 12 06:40 ../
-rw-r--r-- 1 ubuntu ubuntu 258 Feb 12 06:40 authorized_keys
-rw-r--r-- 1 ubuntu ubuntu 1671 Feb 12 06:40 id_rsa
-rw-r--r-- 1 ubuntu ubuntu 388 Feb 12 06:38 id_rsa.pub
-rw-r--r-- 1 ubuntu ubuntu 222 Feb 12 06:13 known_hosts
ubuntu@ip-172-31-24-195:~$ ssh localhost
Warning: Permanently added 'localhost' (publickey).
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 5.15.0-56-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of sun Feb 12 06:41:16 UTC 2023

System load: 0.02               Processes: 101
Usage of /:  9.1% of 38.4Gib     Users logged in: 1
Memory usage: 623                IP address for eth0: 172.31.24.195
Swap usage: 0k

 * Introduction: Extended Security Maintenance for Applications.
   Ensure updates to over 28,000 software packages with your
   Ubuntu Pro subscription. Free for personal use.
   https://ubuntu.com/esc/pro

Extended Security Maintenance for Applications is not enabled.
11 updates can be applied immediately.
9 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

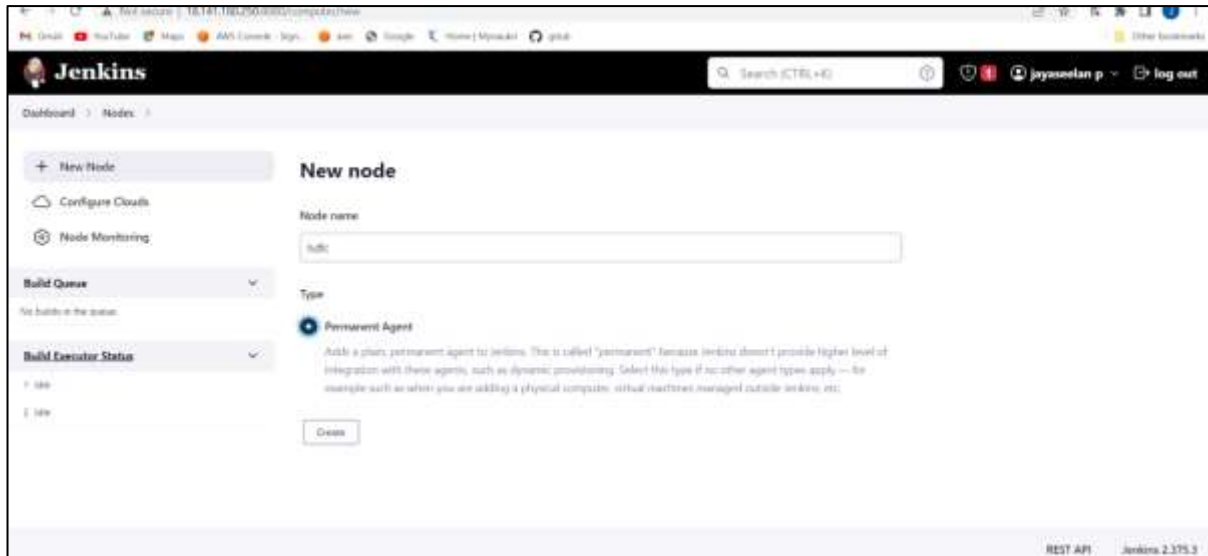
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esc or run: sudo pro status

New release '22.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

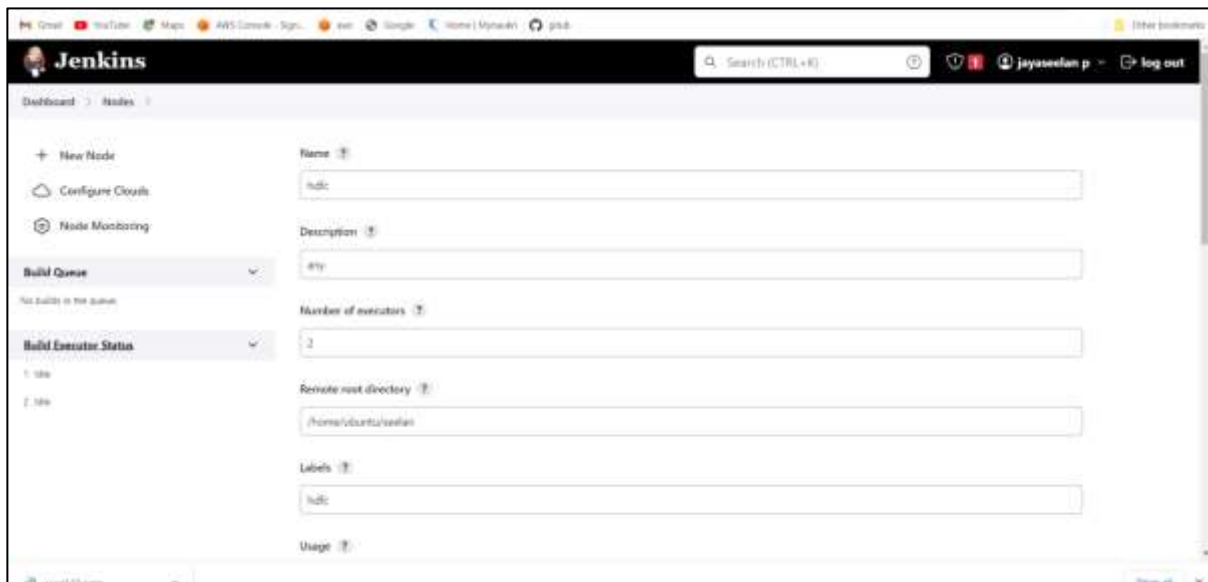
Last login: Sun Feb 12 06:41:09 2023 from 157.51.197.171
ubuntu@ip-172-31-24-195:~$
```

Step5: Jenkins agent setup and create node

Jenkin dashboard --->manage jenkins--->set up agent--->node name(hdfc)---->click permanent agent--->create.



Name(hdfc)---->description(any)---->number of executors(2)---->remote root directory(slave server creating directory path ----> /home/ubuntu/seelan--->lables(hdfc)



Launch method --->select launch agent via ssh--->host(slave server ip)--->

Use this node as much as possible

Launch method [?](#)

Launch agents via SSH

Host [?](#)

54.179.118.152

Credentials [?](#)

None

+ Add

Host Key Verification Strategy [?](#)

Known hosts file Verification Strategy

Credential --->add --->Jenkins--->kind(ssh username with private key)--->id (Ubuntu) --->password(ubuntu)--->private key - -->click enter directory --->add -->pem key copy and paste-->add

Kind

SSH Username with private key

Scope [?](#)

Global (Jenkins, nodes, items, all child items, etc)

ID [?](#)

ubuntu

Description [?](#)

Username

ubuntu

Advanced...

☐ Test username as secret [?](#)

Private Key

☒ Enter directly

Key

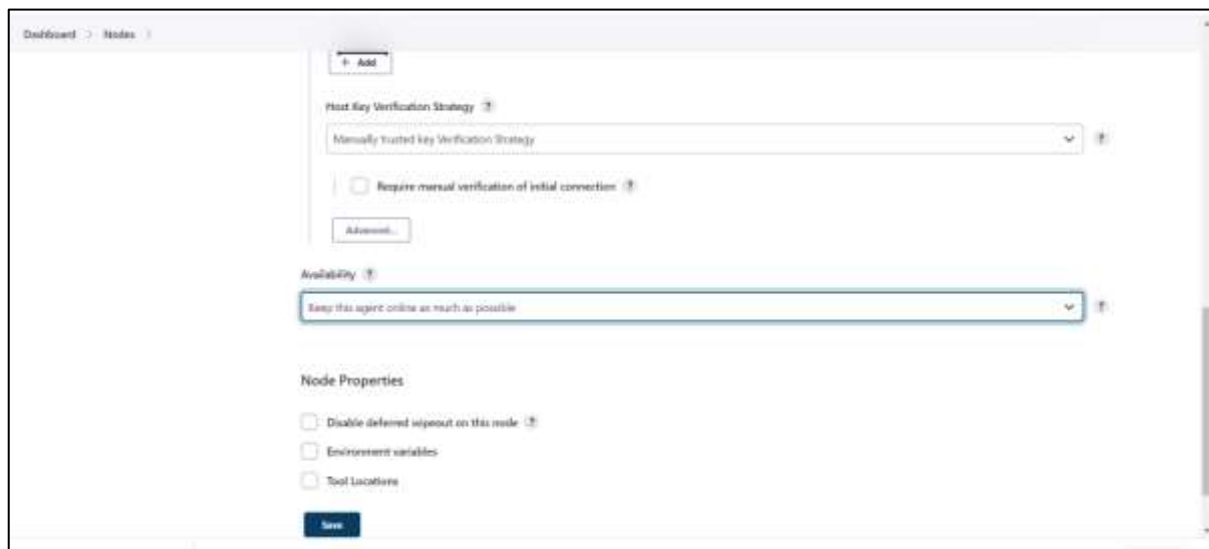
Enter New Secret Below

```
-----BEGIN RSA PRIVATE KEY-----
MIIEpQIBAAQCAQEAhcyMAMPZUNjwL3AgP7fZwTj0xyJk/wl9W6ACdwpJroww9P8
bWxTl9eCkTTZkshZbJl9pM8d6VWl6S4Zx80x8t8U0VJ06v6S+890o7M8J8
```

Passphrase

Add Cancel

Credential select Ubuntu ---> Host Key Verification Strategy (manually trusted key verification strategy) --->save



Dashboard > Nodes

+ Add

Host Key Verification Strategy

Manually trusted key Verification Strategy

☐ Require manual verification of initial connection

Advanced...

Availability

Keep this agent online as much as possible

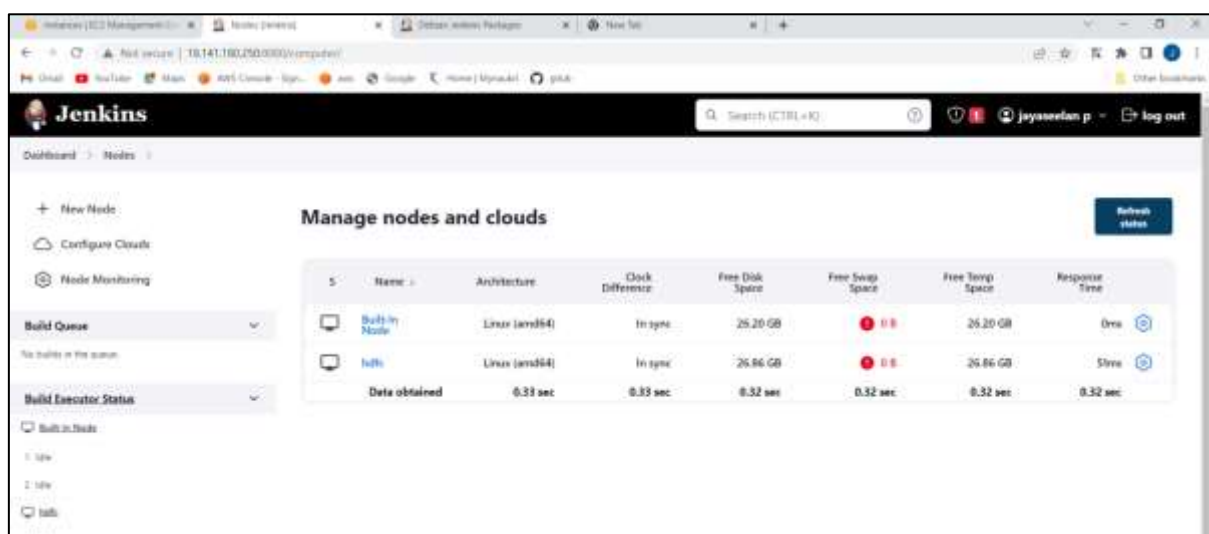
Node Properties

☐ Disable deferred wipeout on this node

☐ Environment variables

☐ Tool Locations

Save



Jenkins

Dashboard > Nodes

+ New Node

Configure Clouds

Node Monitoring

Build Queue

No builds in the queue

Build Executor Status

1: idle

2: idle

heli

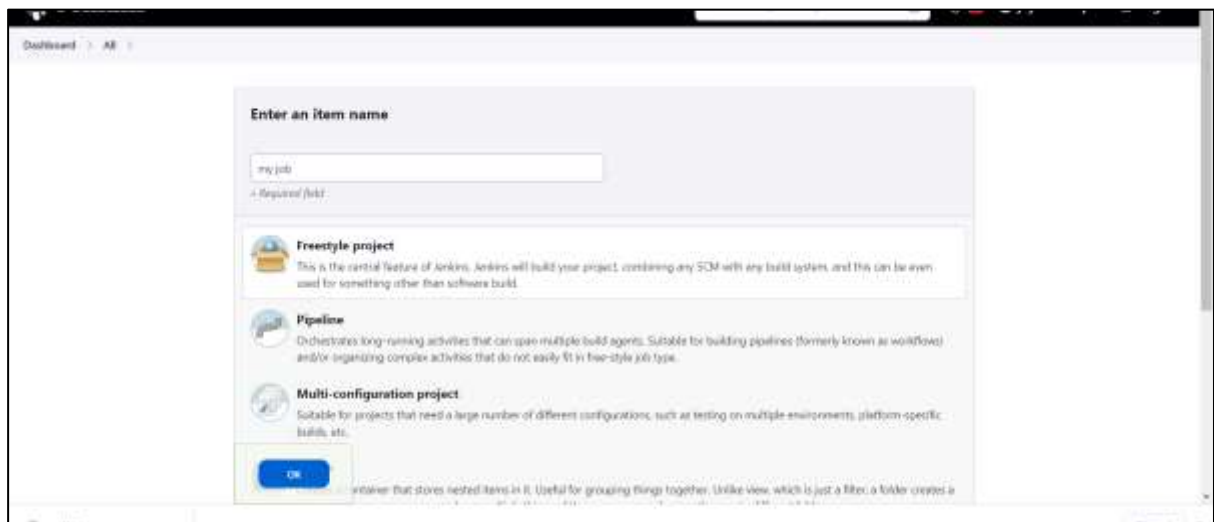
Manage nodes and clouds

S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-in Node	Linux (amd64)	In sync	25.20 GB	0 B	25.20 GB	One
	heli	Linux (amd64)	In sync	25.86 GB	0 B	25.86 GB	Three
	Data obtained	0.33 sec	0.33 sec	0.32 sec	0.32 sec	0.32 sec	0.32 sec

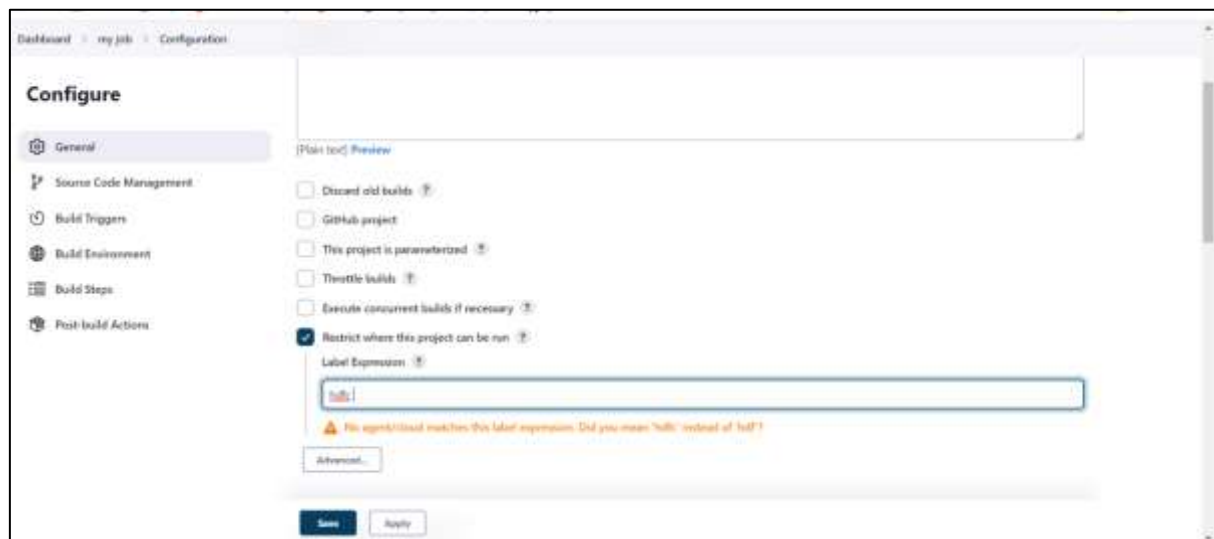
Node created..

Step6:Create Job

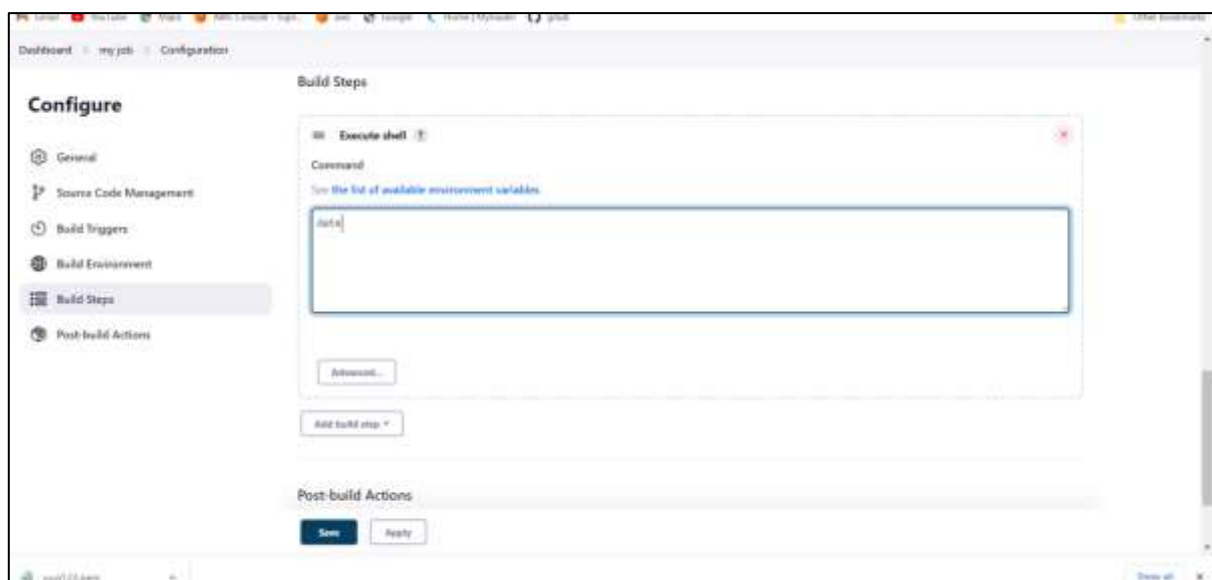
Jenkins dashboard --->new item ---> job name(my job) --->select freestyle project--->ok



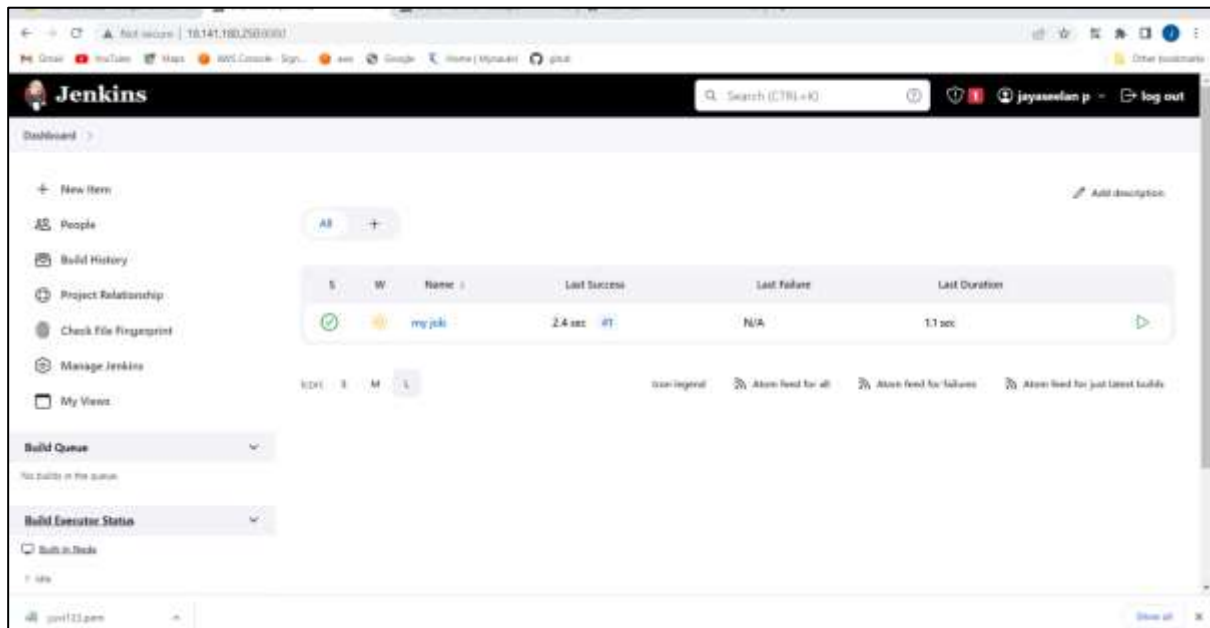
Restrict where this project can be run --->label expression(hdfe)
shown select



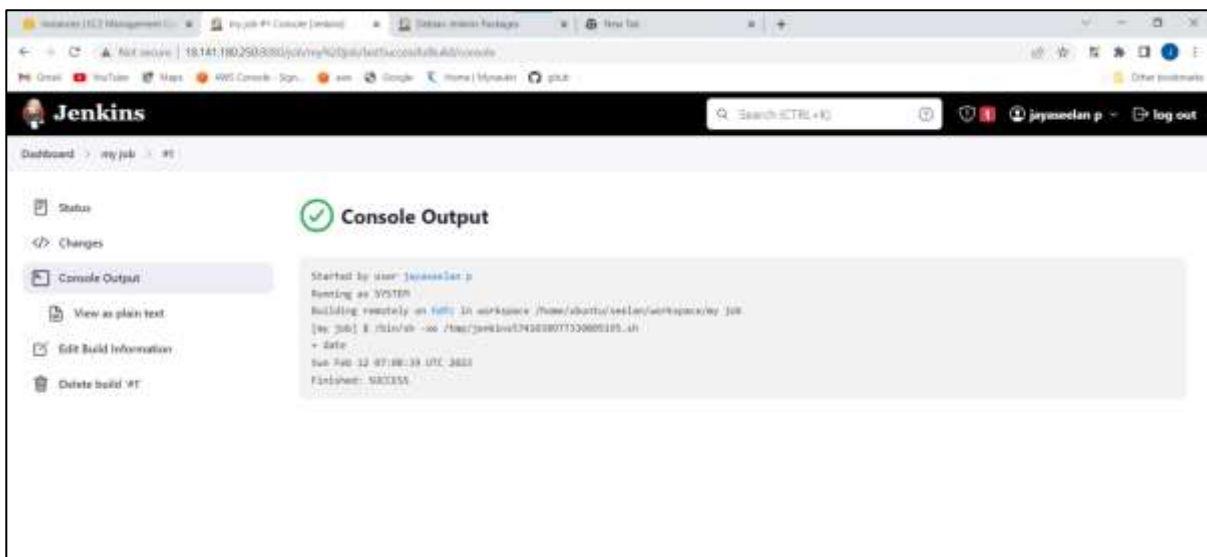
Build steps --->execute shell --->command (date)--->apply and
save



job created and click run onetime



check console output it will show date



Finally check slave server #cd seelan

#ll ---->shown workspace

#cd workspace --->#ll --->shown my job

