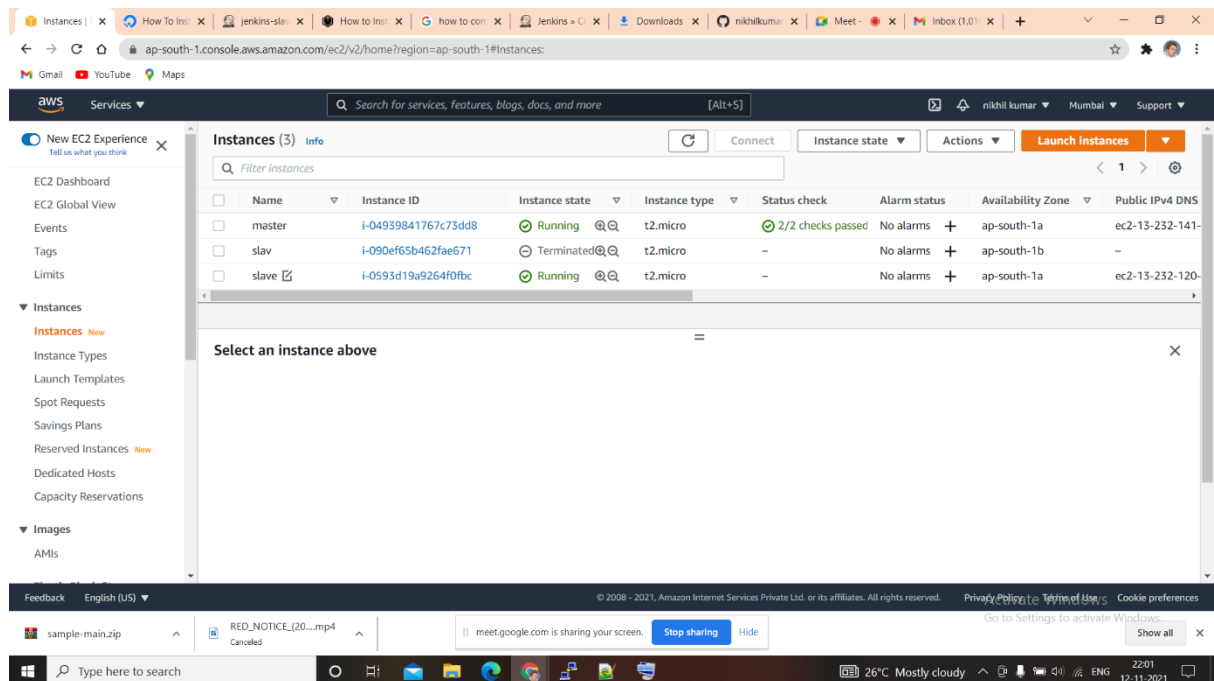


Jenkins Assignment – CS457 (DevOps)

Master-Slave

- Team 9

1. Create two AWS ec-2 Ubuntu instances as master and slave.
Install java on both the machines and Jenkins only on the master machine



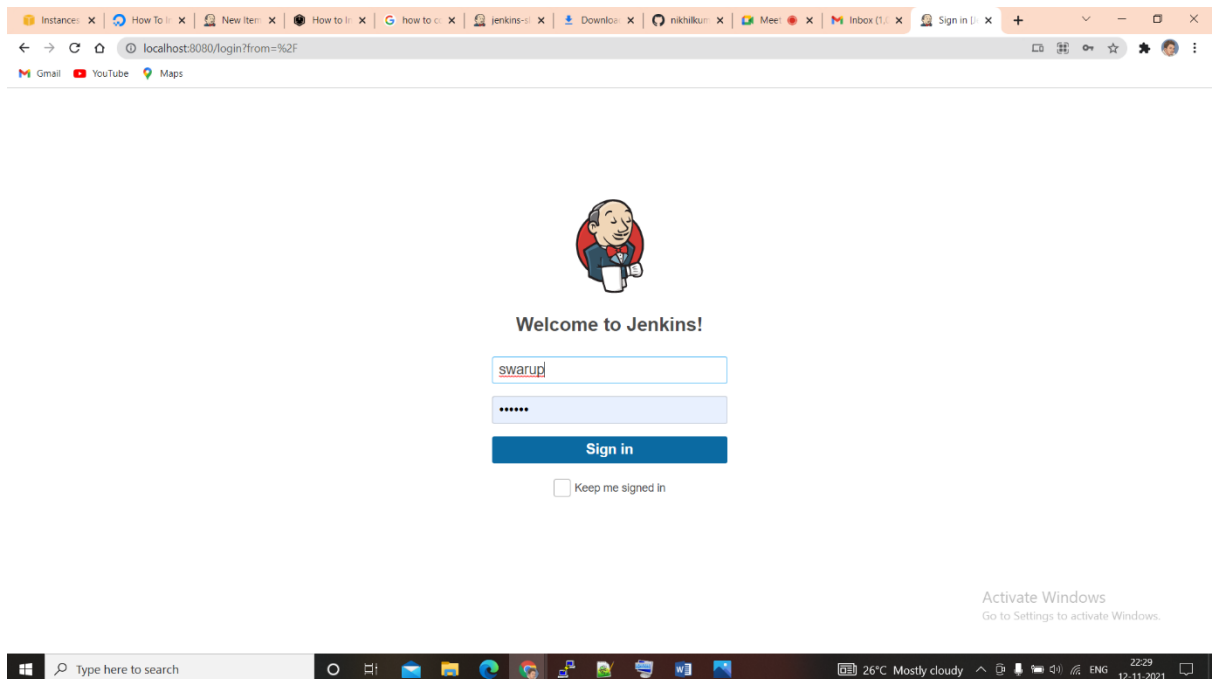
To install java –

```
sudo apt-get install  
sudo apt install openjdk-8-jdk  
java -version
```

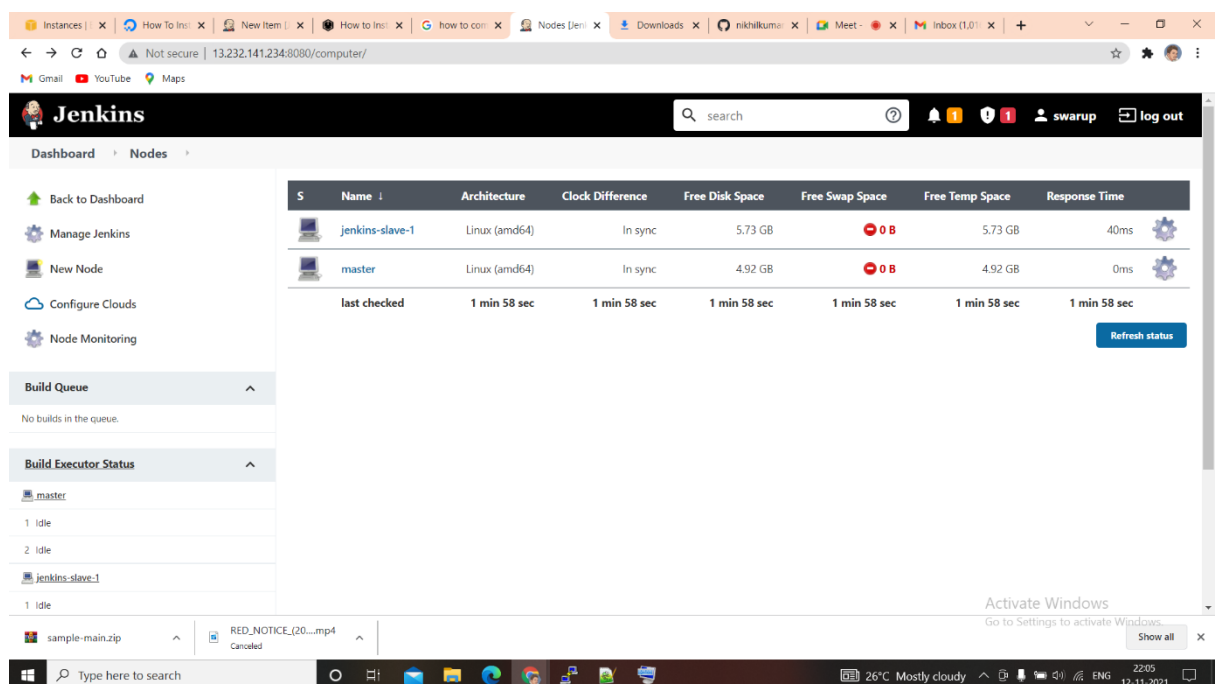
to install Jenkins –

```
wget -q -O - https://pkg.jenkins.io/debian/jenkins.io.key | sudo apt-key  
add –  
sudo sh -c 'echo deb http://pkg.jenkins.io/debian-stable binary/ >  
/etc/apt/sources.list.d/jenkins.list'  
sudo apt install Jenkins  
systemctl status Jenkins  
sudo ufw allow 8080  
sudo ufw status
```

2 . Open Jenkins with ip address of master with localhost 8080 in your web browser and login to Jenkins.



3. Create new node to connect to slave instance in Jenkins and configure it



```
ubuntu@ip-172-31-35-141: ~/jenkins/workspace/jenkins-slave-2
login as: ubuntu
Authenticating with public key "imported-openssh-key"
Passphrase for key "imported-openssh-key":
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.11.0-1020-aws x86_64)

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

System information as of Fri Nov 12 15:27:23 UTC 2021

System load: 0.08      Processes: 103
Usage of /: 25.0% of 7.69GB   Users logged in: 1
Memory usage: 24%      IPv4 address for eth0: 172.31.35.141
Swap usage: 0%

23 updates can be applied immediately.
15 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Last login: Fri Nov 12 15:20:32 2021 from 106.217.231.111
ubuntu@ip-172-31-35-141:~$ sudo apt-get update
Hit:1 http://security.ubuntu.com/ubuntu focal-security InRelease
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal InRelease
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu focal-backports InRelease
Reading package lists... Done
ubuntu@ip-172-31-35-141:~$ java -version
openjdk version "11.0.0.9"
OpenJDK Runtime Environment (build 11.0.0.9-292-b10-0ubuntu1~20.04-b10)
OpenJDK 64-Bit Server VM (build 25.292-b10, mixed mode)
ubuntu@ip-172-31-35-141:~$ la
.bash_logout .code .ssh jenkins
.bashrc .profile .sudo_as_admin_successful
ubuntu@ip-172-31-35-141:~$ ls
jenkins
ubuntu@ip-172-31-35-141:~$ cd jenkins
ubuntu@ip-172-31-35-141:~/jenkins$ cd
ubuntu@ip-172-31-35-141:~$ sudo chmod 777 -R jenkins
ubuntu@ip-172-31-35-141:~$ ls
jenkins
ubuntu@ip-172-31-35-141:~$ cd jenkins/
ubuntu@ip-172-31-35-141:~/jenkins$ ls
ubuntu@ip-172-31-35-141:~/jenkins$ pwd
/home/ubuntu/jenkins
ubuntu@ip-172-31-35-141:~/jenkins$ ^C
ubuntu@ip-172-31-35-141:~/jenkins$ cd
ubuntu@ip-172-31-35-141:~$ cd jenkins/
```

Instances | How To Ins | New Item | How to con | jenkins-slave | Downloads | nikhilkuma | Meet | Inbox (1,0) | +

Not secure | 13.232.141.234:8080/computer/jenkins-slave-1/configure

Dashboard | Nodes | jenkins-slave-1

Back to List | Status | Delete Agent | **Configure** | Build History | Load Statistics | Script Console | Log | System Information | Disconnect

Build Executor Status

1 Idle	
2 Idle	

Name: jenkins-slave-1

Description: This is Jenkins Slave 1

Number of executors: 5

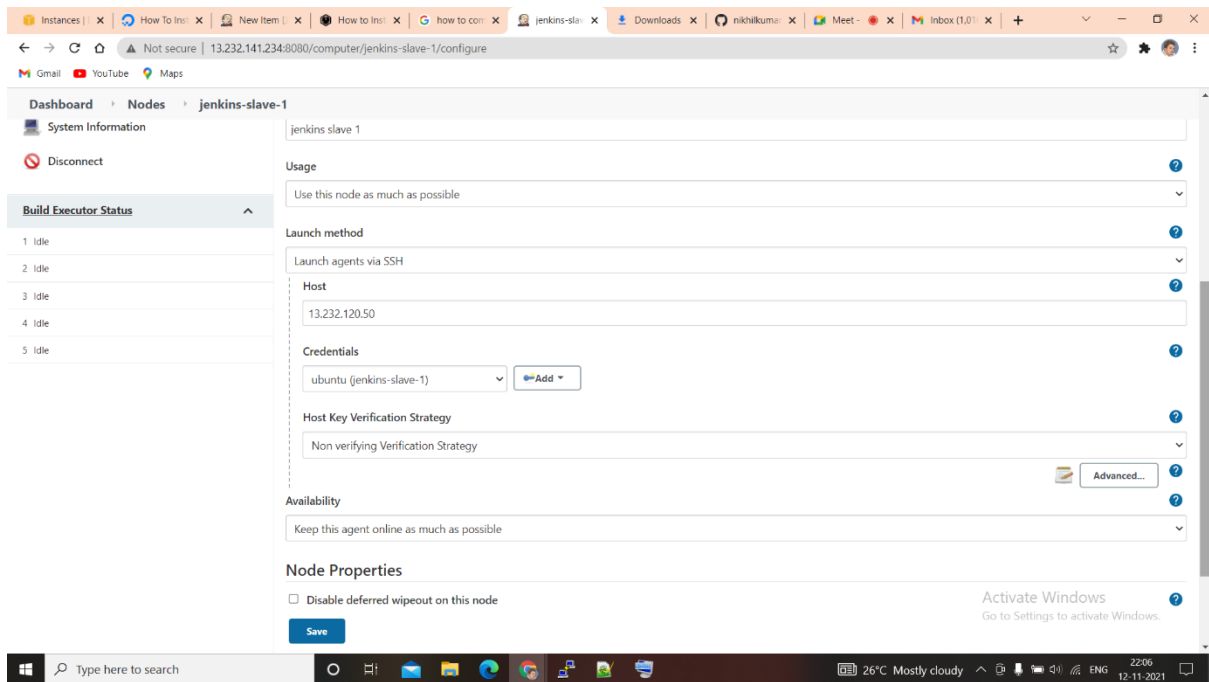
Remote root directory: /home/ubuntu/jenkins

Labels: jenkins slave 1

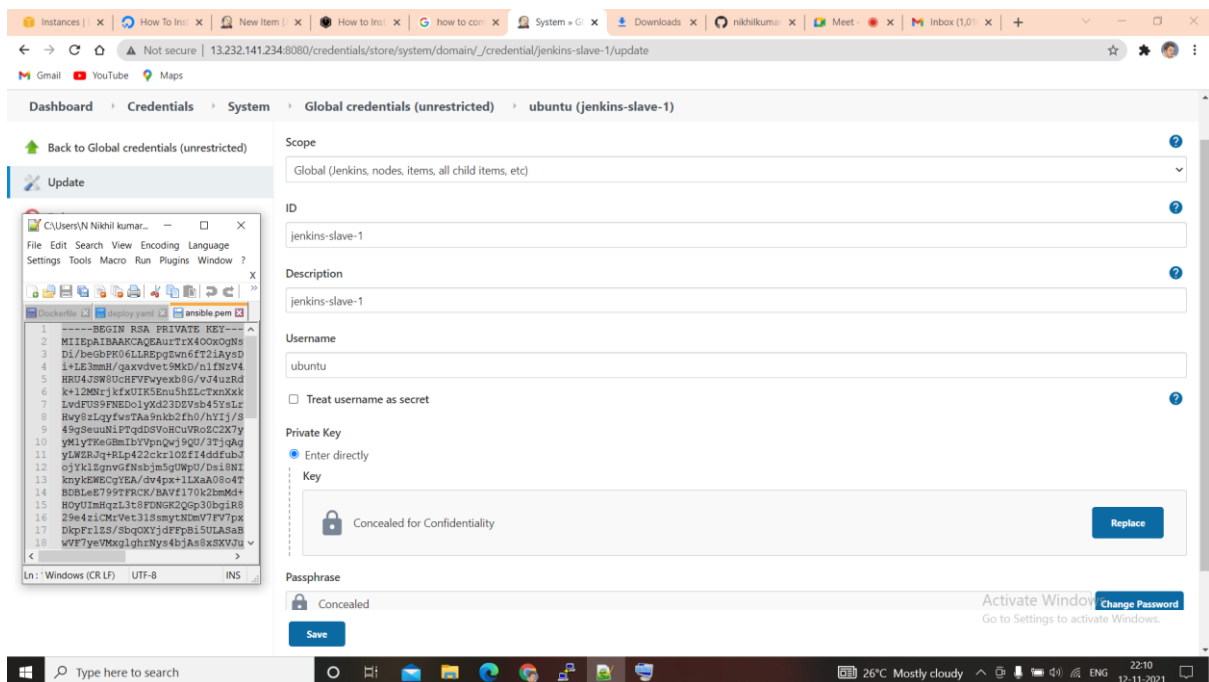
Usage: Use this node as much as possible

Launch method: Save

sample-main.zip | RED_NOTICE(20...mp4 | Cancelled



4 .Manage credentials to connect to github..



5 . Create new job Jenkins-slave-2 configure it and build it

The screenshot shows the Jenkins Dashboard. The left sidebar contains navigation links: New Item, People, Build History, Project Relationship, Check File Fingerprint, Manage Jenkins, My Views, Lockable Resources, and New View. The main content area displays a table of build executors. Below the table, there are links for 'Icon: S M L', 'Legend', and 'Atom feed for all', 'Atom feed for failures', and 'Atom feed for just latest builds'. The 'Build Queue' section shows 'No builds in the queue.' The 'Build Executor Status' section shows a single executor named 'master'.

S	W	Name ↓	Last Success	Last Failure	Last Duration
✓	☁	jenkins-slave-1	48 min - #4	50 min - #2	2.3 sec
✓	⚙	jenkins-slave-2	8.4 sec - #2	N/A	0.64 sec

The screenshot shows the configuration page for 'jenkins-slave-2'. The 'Source Code Management' tab is selected. The 'Repository' section is configured with 'Git' as the provider, 'https://github.com/nikhilkumar1602/sample.git' as the Repository URL, and 'nikhilkumar1602/***** (test jenkins)' as the Credentials. The 'Branches to build' section is configured with '*/main' as the Branch Specifier. The 'Save' button is highlighted.

General | **Source Code Management** | Build Triggers | Build Environment | Build | Post-build Actions

☐ None
☒ Git

Repositories

Repository URL:

Credentials:

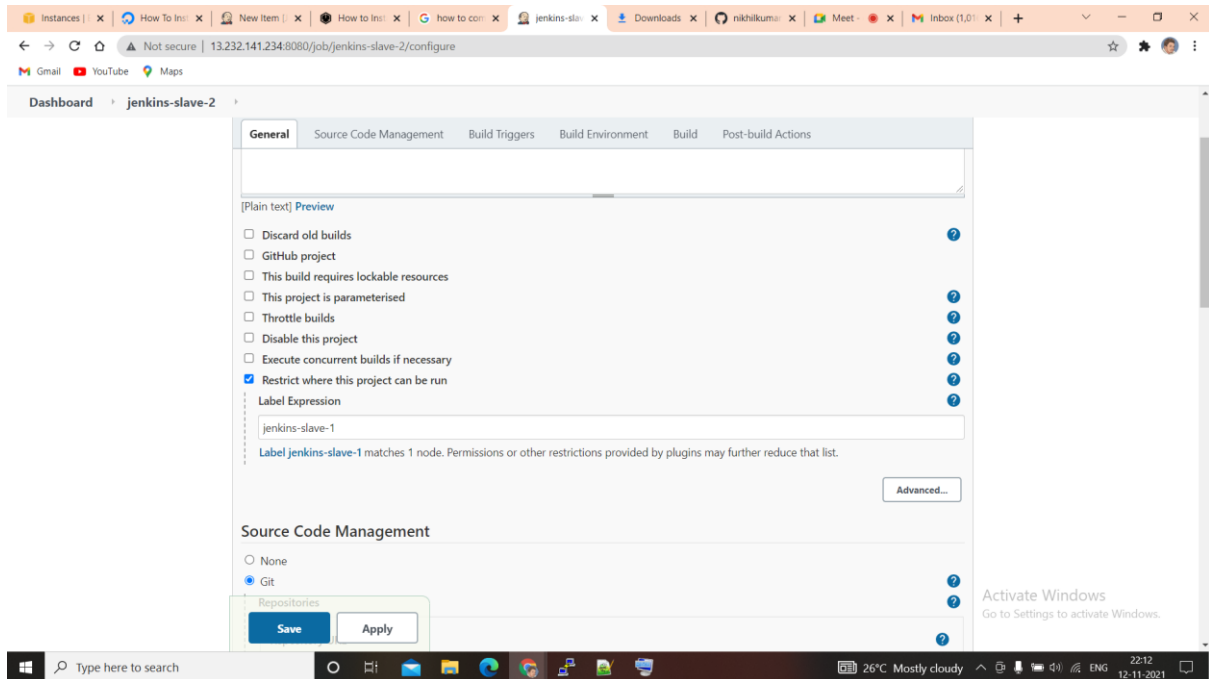
Advanced...
Add Repository

Branches to build

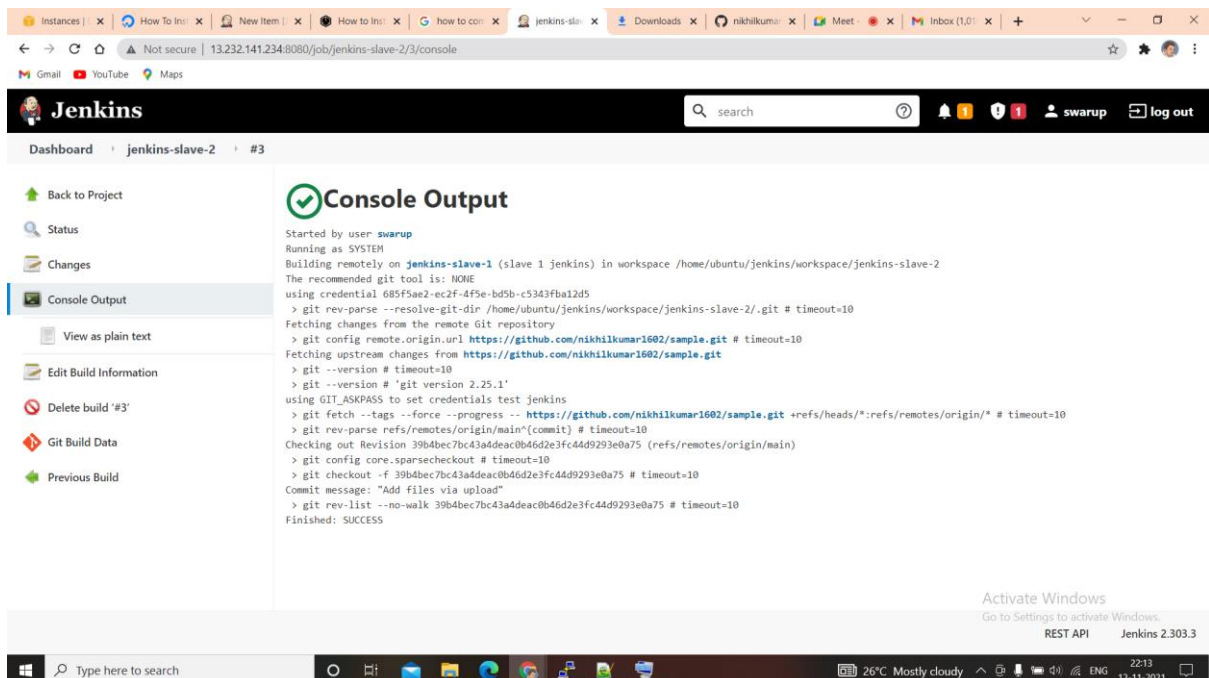
Branch Specifier (blank for 'any'):

Add Branch

Save Apply



6. Console output after building the job



7. we can check the jobs which or running on the AWS slave instance

The screenshot shows the Jenkins web interface for a project named 'jenkins-slave-2'. The interface includes a sidebar with navigation options such as 'Status', 'Changes', 'Workspace', 'Build Now', 'Configure', 'Delete Project', and 'Rename'. The main content area displays 'Permalinks' for the last build, stable build, successful build, and completed build. A terminal window is overlaid on the page, showing a shell session on an Ubuntu instance. The terminal output includes directory listings for '/jenkins' and '/jenkins/workspace', and a command to run 'cd jenkins-slave-2'.

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