

## Module 6: Jenkins Assignment - 2

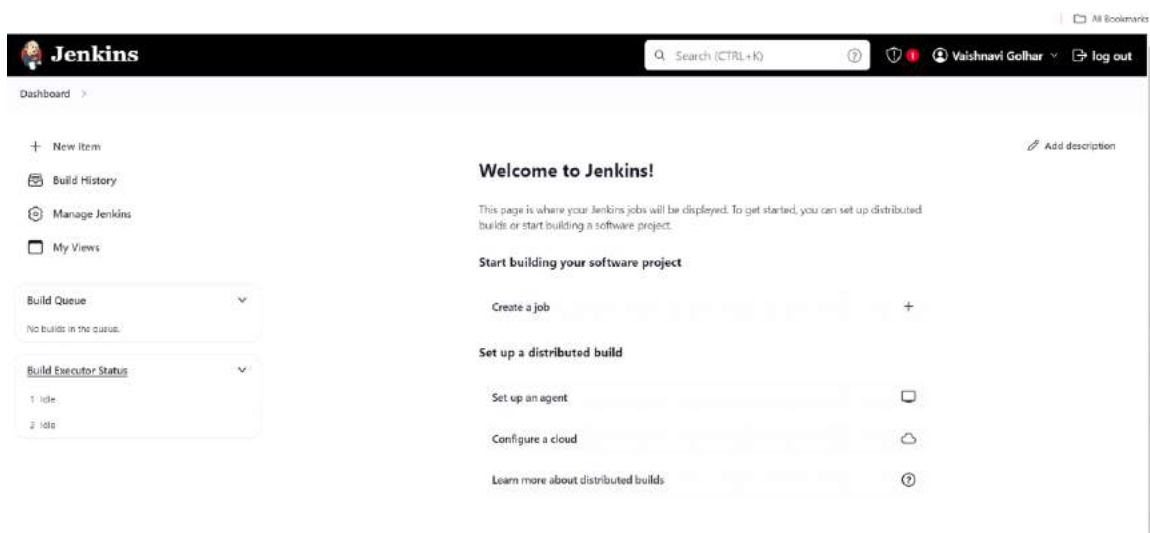
### Tasks To Be Performed:

1. Add 2 nodes to Jenkins master
2. Create 2 jobs with the following jobs:
  - a. Push to test
  - b. Push to prod
3. Once a push is made to test branch, copy Git files to test server
4. Once a push is made to master branch, copy Git files to Prod server

### SOLUTION:

A) 3 instances have been successfully saved as “Jenkins-Master”, “Test” & “Prod”.

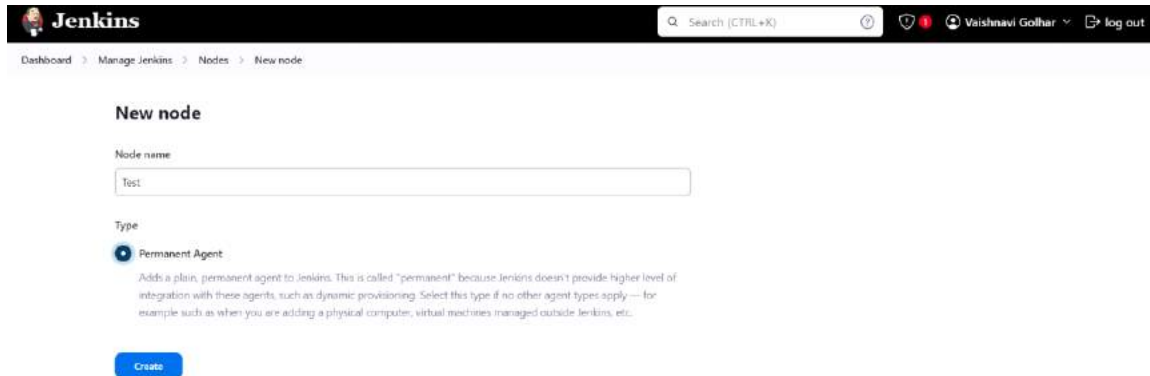
a} Installed Jenkins and Java on Jenkins-Master



b} Install “Java” on “Test Server”.

c} Install “Java” on “Prod Server”.

d} Add “Test Server” to Jenkins Master



The screenshot shows the Jenkins 'New node' configuration page. The 'Node name' field is filled with 'Test'. The 'Type' is set to 'Permanent Agent'. A description is provided: 'Adds a plain, permanent agent to Jenkins. This is called "permanent" because Jenkins doesn't provide higher level of integration with these agents, such as dynamic provisioning. Select this type if no other agent types apply — for example such as when you are adding a physical computer, virtual machines managed outside Jenkins, etc.' A blue 'Create' button is at the bottom.

**Jenkins** Search (CTRL+K) Vaishnavi Golhar log out

Dashboard > Manage Jenkins > Nodes > New node

### New node

Node name  
Test

Type  
☒ Permanent Agent

Adds a plain, permanent agent to Jenkins. This is called "permanent" because Jenkins doesn't provide higher level of integration with these agents, such as dynamic provisioning. Select this type if no other agent types apply — for example such as when you are adding a physical computer, virtual machines managed outside Jenkins, etc.

Create



The screenshot shows the Jenkins 'New node' configuration page with more fields filled. 'Name' is 'Test'. 'Description' is 'This is test node'. 'Number of executors' is '1'. 'Remote root directory' is '/home/ubuntu/jenkins'. 'Labels' is 'Test'. A 'Preview' link is visible below the description field.

**Jenkins** Search (CTRL+K) Vaishnavi Golhar log out

Dashboard > Manage Jenkins > Nodes >

Name  
Test

Description  
This is test node

Plain text: Preview

Number of executors  
1

Remote root directory  
/home/ubuntu/jenkins

Labels  
Test



The screenshot shows the Jenkins 'Nodes' page. A table lists the nodes: 'Built-in Node' and 'Test'. The 'Test' node is shown as 'Offline' with a red icon. The table includes columns for Name, Architecture, Clock Difference, Free Disk Space, Free Swap Space, Free Temp Space, and Response Time. A 'New Node' button and 'Configure Monitors' link are at the top right.

**Jenkins** Search (CTRL+K) Vaishnavi Golhar log out

Dashboard > Manage Jenkins > Nodes >

Nodes [New Node](#) [Configure Monitors](#)

	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-in Node	Linux (amd64)	In sync	4.47 GiB	9 B	4.47 GiB	0ms
	Test		N/A	N/A	N/A	N/A	N/A
	Data obtained	8 ms	6 ms	4 ms	4 ms	3 ms	3 ms

Icons: S M L Legend

Dashboard > Nodes > Test > Log

```
openjdk version "17.0.11" 2024-04-16
OpenJDK Runtime Environment (build 17.0.11+9-Ubuntu-1)
OpenJDK 64-Bit Server VM (build 17.0.11+9-Ubuntu-1, mixed mode, sharing)
[06/11/24 17:40:40] [SSH] Checking java version of /home/ubuntu/jenkins/jdk/bin/java
Could not figure out the Java version of /home/ubuntu/jenkins/jdk/bin/java
bash: line 1: /home/ubuntu/jenkins/jdk/bin/java: No such file or directory

[06/11/24 17:40:40] [SSH] Checking java version of java
[06/11/24 17:40:40] [SSH] java -version returned 17.0.11.
[06/11/24 17:40:40] [SSH] Starting sftp client.
[06/11/24 17:40:40] [SSH] Copying latest remoting.jar...
[06/11/24 17:40:40] [SSH] Copied 1,369,595 bytes.
Expanded the channel window size to 4096
[06/11/24 17:40:40] [SSH] Starting agent process: cd "/home/ubuntu/jenkins" && java -jar remoting.jar -workDir /home/ubuntu/jenkins -jar-cache
/home/ubuntu/jenkins/remoting/jarCache
Jun 11, 2024 5:40:40 PM org.jenkinsci.remoting.engine.WorkDirManager initializeWorkDir
INFO: Using /home/ubuntu/jenkins/remoting as a remoting work directory
Jun 11, 2024 5:40:40 PM org.jenkinsci.remoting.engine.WorkDirManager setupLogging
INFO: Both error and output logs will be printed to /home/ubuntu/jenkins/remoting
<==[JENKINS REMOTING CAPACITY]==>channel started
Remoting version: 3206.vb_15dc773f6a_9
Launcher: SSHLauncher
Communication Protocol: Standard in/out
This is a Unix agent
Agent successfully connected and online
```

## e} Add “Prod Server” to Jenkins Master

Jenkins

Search (CTRL+K)

🔒 🔴 👤 Vaishnavi Gollur 🚪 log out

Dashboard > Nodes > New node

New node

Node name

Prod

Type

☒ Permanent Agent

Adds a plain, permanent agent to Jenkins. This is called “permanent” because Jenkins doesn’t provide higher level of integration with these agents, such as dynamic provisioning. Select this type if no other agent types apply — for example such as when you are adding a physical computer, virtual machines managed outside Jenkins, etc.

☐ Copy Existing Node

Create

Jenkins

Search (CTRL+K)

🔒 🔴 👤 Vaishnavi Gollur 🚪 log out

Dashboard > Nodes >

Name

Prod

Description

This is prod node

Plan text

Preview

Number of executors

1

Remote root directory

/home/ubuntu/jenkins

Labels

Prod

Usage

Use this node as much as possible

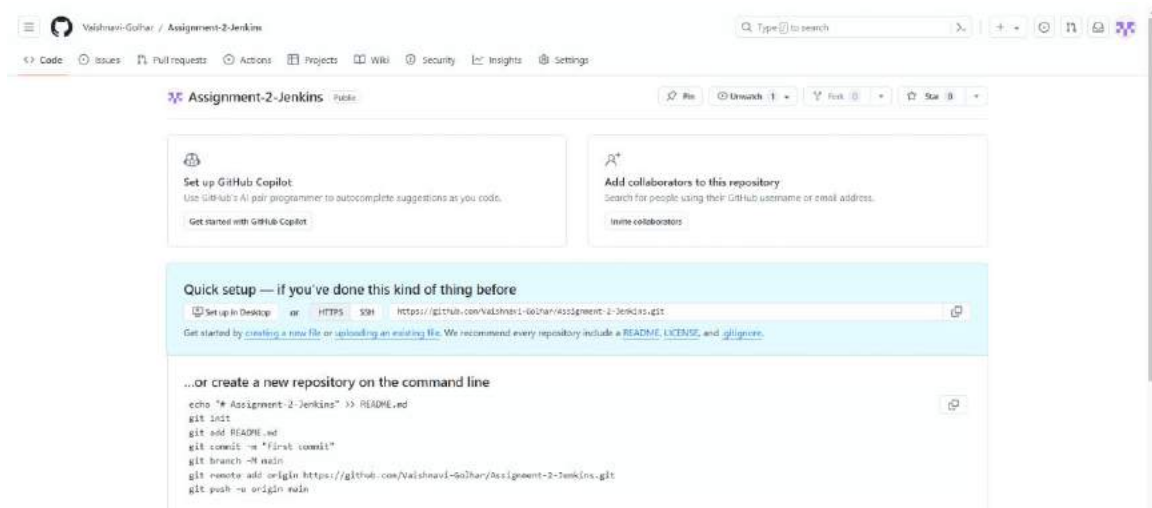


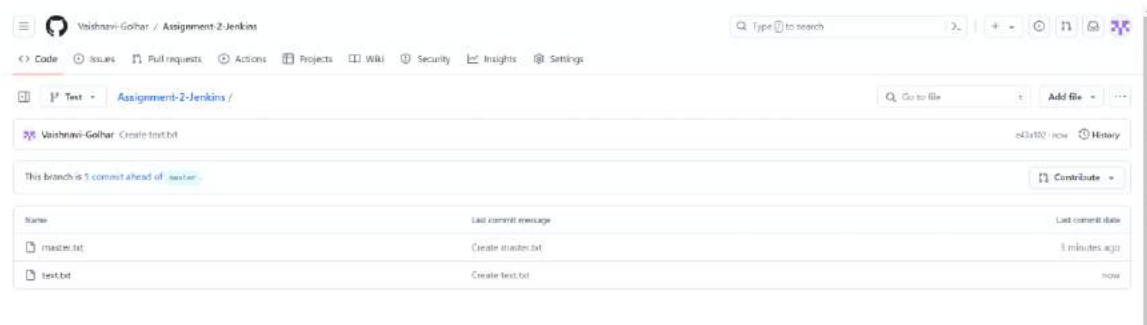
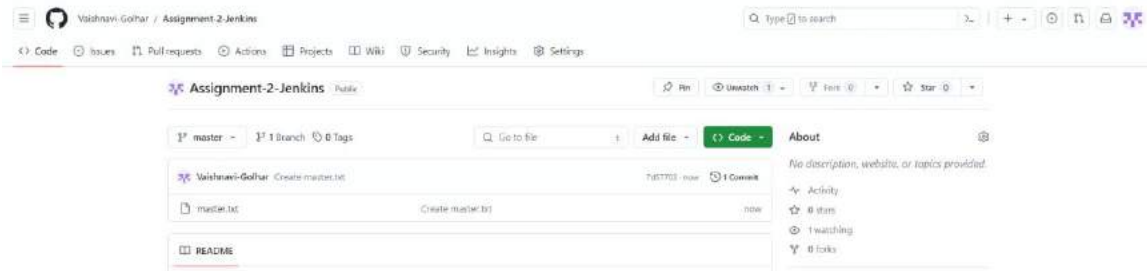
**Problem (2) Solution: Create 2 jobs with the following jobs:**

**a. Push to test**

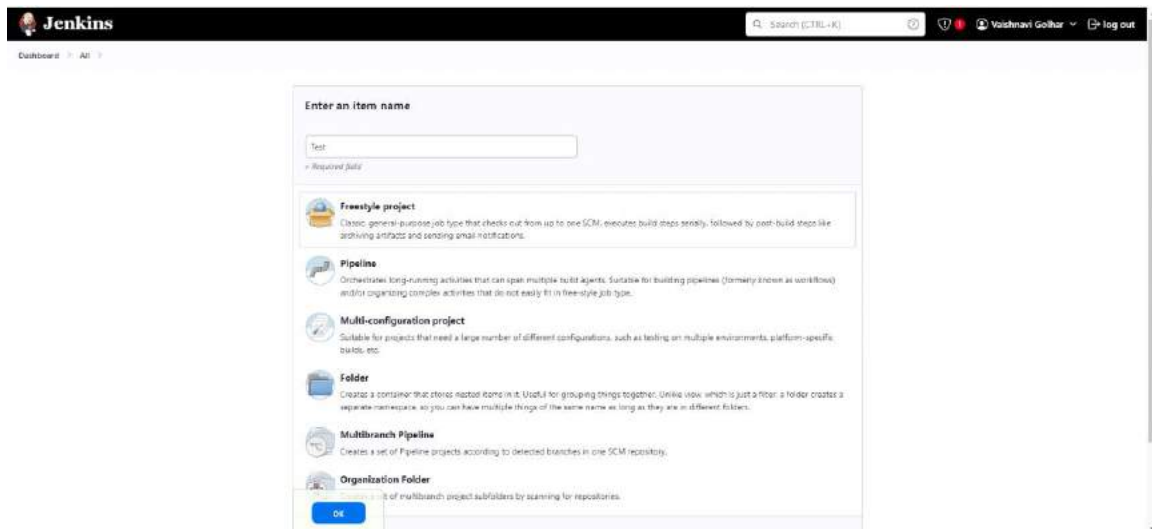
**b. Push to prod**

**A. Create a Repository in Git Hub as “Assignment-2-Jenkins”**





## B. Create a Job for Pushing to Test Repo



## Configure

### General

#### Source Code Management

#### Build Triggers

#### Build Environment

#### Build Steps

#### Post-build Actions


## General

Enabled 

### Description

This is the test job

Plan tool: [Preview](#)

☐ Delete old builds 

☒ Get repo project

Project url 


<https://github.com/salesian-doherty/designer-2-jenkins.git>

Advanced 

☐ This project is parameterized 

☐ Throttle builds 


☐ Execute concurrent builds if necessary 


☒ Restrict where this project can be run 

Label Expression 

[Test](#)

[Label Test](#) matches 1 node. Permissions or other restrictions provided by plugins may further reduce that list.

Branches to build 

Branch Specifier (blank for 'any') 

[\\*/test](#)

### Build Triggers


#### Build Environment


#### Build Steps

#### Post-build Actions

### Build Triggers

☐ Trigger builds remotely (e.g., from scripts) 

☐ Build after other projects are built 


☐ Build periodically 

☒ Get build triggers for GitScm polling 

☐ Poll SCM 

### Build Environment

☐ Delete workspace before build starts

☐ Use secret folders (e.g. AWS) 

☐ Add timestamps to the Console Output

☐ Inspect build log for published build scans

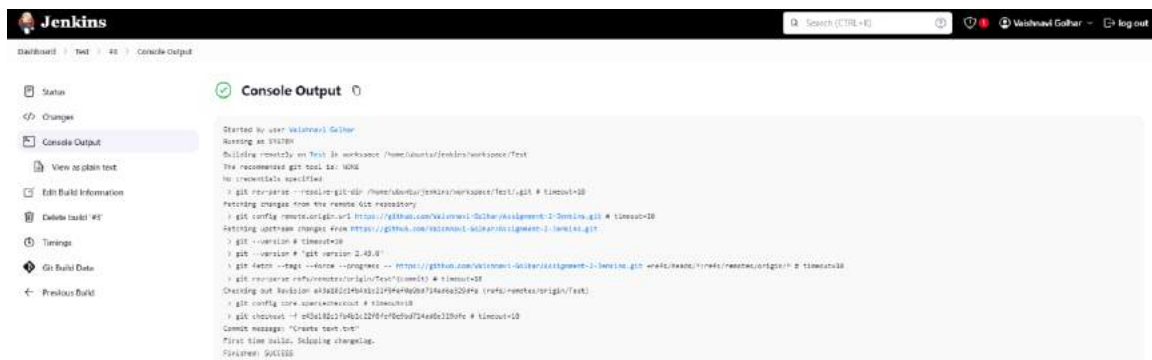
☐ Reconfigure a build if it's stuck

☐ With Ant 

### Build Steps

[Save](#)

[Apply](#)



```

aws      Services Search [Alt+S]
Adding debian:e-Sign Root CA 2017.pem
Adding debian:eSni_Root_Certification_Authority.pem
Adding debian:euSign ECC Root CA - C3.pem
Adding debian:euSign EC Root CA - G3.pem
Adding debian:euSign Root CA - C1.pem
Adding debian:euSign Root CA - G1.pem
Adding debian:vTrus ECC Root CA.pem
Adding debian:vTrus_Root_CA.pem
Done.
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-6-231:~$ sudo apt-get install jenkins
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libfreetype6 libfontconfig1 libjpeg-turbo8 libjpeg9 libpng16-16 libtiff5
Use 'dpkg --get-selections' to see which packages are automatically installed.
The following NEW packages will be installed:
  jenkins
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 45.0 MB of archives.
After this operation, 170 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://mirrors.aliyun.com/ubuntu/pool/universe/o/openssh-jenkins/jenkins_2.17.6-1ubuntu1~ppc64el.deb [45.0 MB]
Fetched 45.0 MB in 2s (22.5 MB/s)
Selecting previously unselected package jenkins.
(Reading database ... 123456 files and directories currently installed.)
Preparing to unpack jenkins_2.17.6-1ubuntu1~ppc64el.deb ...
Unpacking jenkins (2.17.6-1ubuntu1~ppc64el) ...
Setting up jenkins (2.17.6-1ubuntu1~ppc64el) ...
jenkins.service is enabled.
To enable Jenkins as a systemd service, run:
systemctl enable jenkins.service
To start Jenkins, run:
systemctl start jenkins.service
To check the status of Jenkins, run:
systemctl status jenkins.service
To view the logs of Jenkins, run:
journalctl -fu jenkins
To stop Jenkins, run:
systemctl stop jenkins.service
To restart Jenkins, run:
systemctl restart jenkins.service
To reload the configuration of Jenkins, run:
systemctl daemon-reload
To update Jenkins, run:
sudo apt-get update
sudo apt-get upgrade

```

### C) Create a Job for Pushing to Prod Repo





No VM guests are running outdated hypervisor (qemu) binaries on this host.

```
ubuntu@ip-172-31-9-19:~$ mkdir jenkins
ubuntu@ip-172-31-9-19:~$ cd jenkins
ubuntu@ip-172-31-9-19:~/jenkins$ pwd
/home/ubuntu/jenkins
ubuntu@ip-172-31-9-19:~/jenkins$ ls
remoting  remoting.jar  workspace
ubuntu@ip-172-31-9-19:~/jenkins$ cd workspace/
ubuntu@ip-172-31-9-19:~/jenkins/workspace$ ls
Prod
ubuntu@ip-172-31-9-19:~/jenkins/workspace$ ls Prod
master.txt
ubuntu@ip-172-31-9-19:~/jenkins/workspace$
```

i-051a8011967b67e94 (Prod)

Public IP: 54.153.32.228 Private IP: 172.31.9.19

