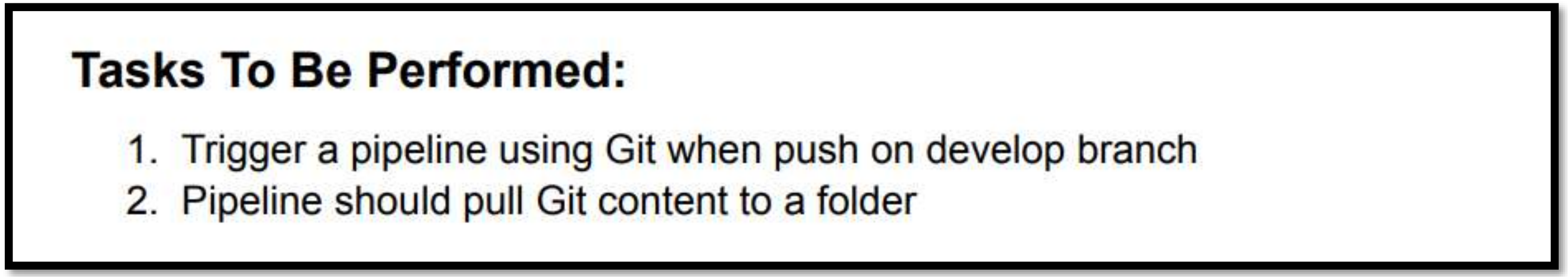
Module 6: Jenkins Assignment

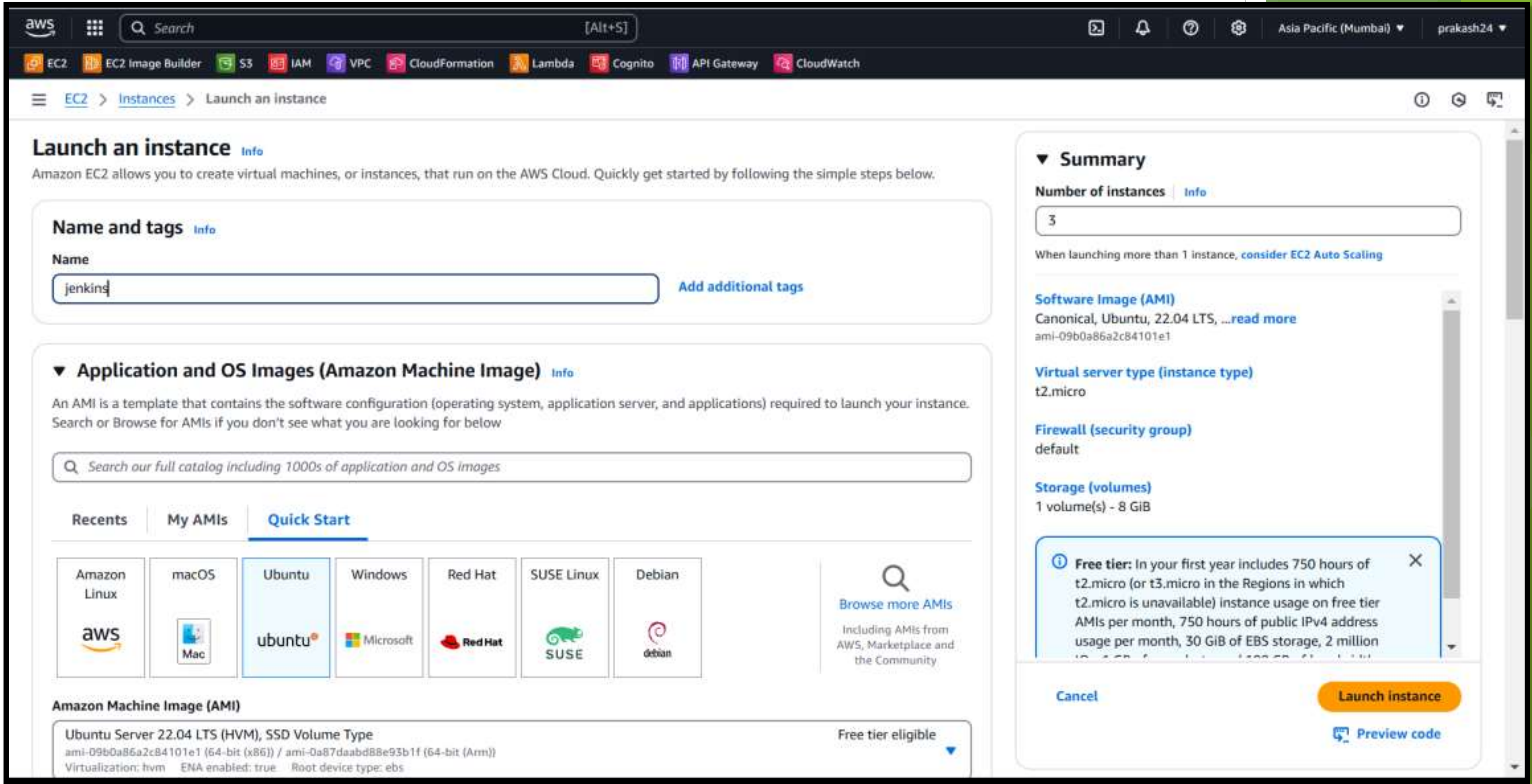
Module 6: Jenkins Assignment - 1



Tasks To Be Performed:

1. Trigger a pipeline using Git when push on develop branch
2. Pipeline should pull Git content to a folder

Launching 3 Ec2 Instance



Launch an instance Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Name: jenkins

Add additional tags

▼ Application and OS Images (Amazon Machine Image) Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Amazon Machine Image (AMI)

Ubuntu Server 22.04 LTS (HVM), SSD Volume Type — Free tier eligible
ami-09b0a86a2c84101e1 (64-bit (x86)) / ami-0a87daabd88e93b1f (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs

▼ Summary

Number of instances Info: 3

When launching more than 1 instance, consider EC2 Auto Scaling

Software Image (AMI)
Canonical, Ubuntu, 22.04 LTS, ...read more
ami-09b0a86a2c84101e1

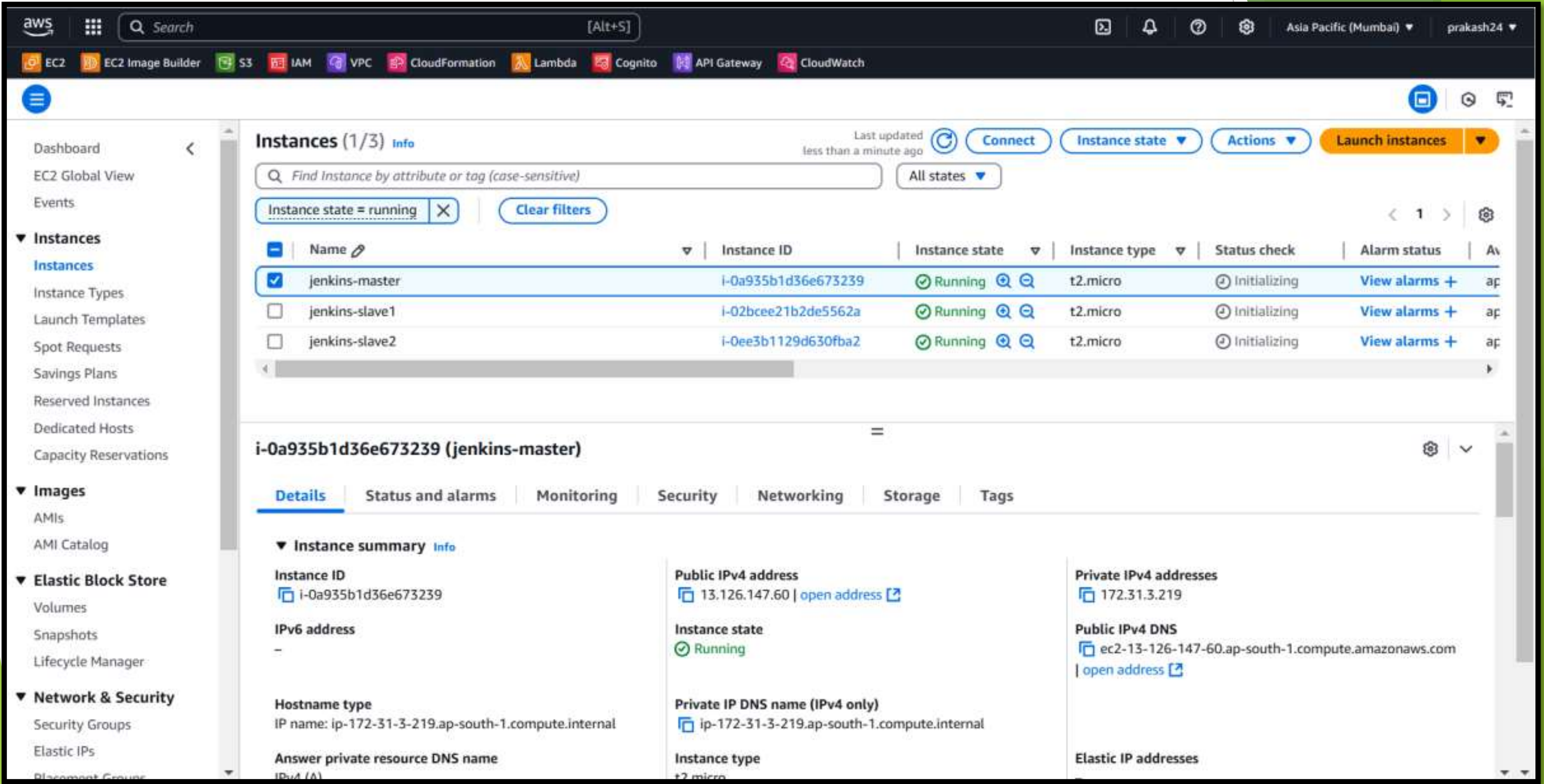
Virtual server type (instance type)
t2.micro

Firewall (security group)
default

Storage (volumes)
1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million

3 Ec2 Instance one master & 2 slave nodes



Instances (1/3) Info

☐	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Av
☑	jenkins-master	i-0a935b1d36e673239	Running	t2.micro	Initializing	View alarms +	ap
☐	jenkins-slave1	i-02bcee21b2de5562a	Running	t2.micro	Initializing	View alarms +	ap
☐	jenkins-slave2	i-0ee3b1129d630fba2	Running	t2.micro	Initializing	View alarms +	ap

i-0a935b1d36e673239 (jenkins-master)

Instance summary Info

Instance ID
i-0a935b1d36e673239

Public IPv4 address
13.126.147.60 | open address

Private IPv4 addresses
172.31.3.219

IPv6 address
–

Instance state
Running

Public IPv4 DNS
ec2-13-126-147-60.ap-south-1.compute.amazonaws.com | open address

Hostname type
IP name: ip-172-31-3-219.ap-south-1.compute.internal

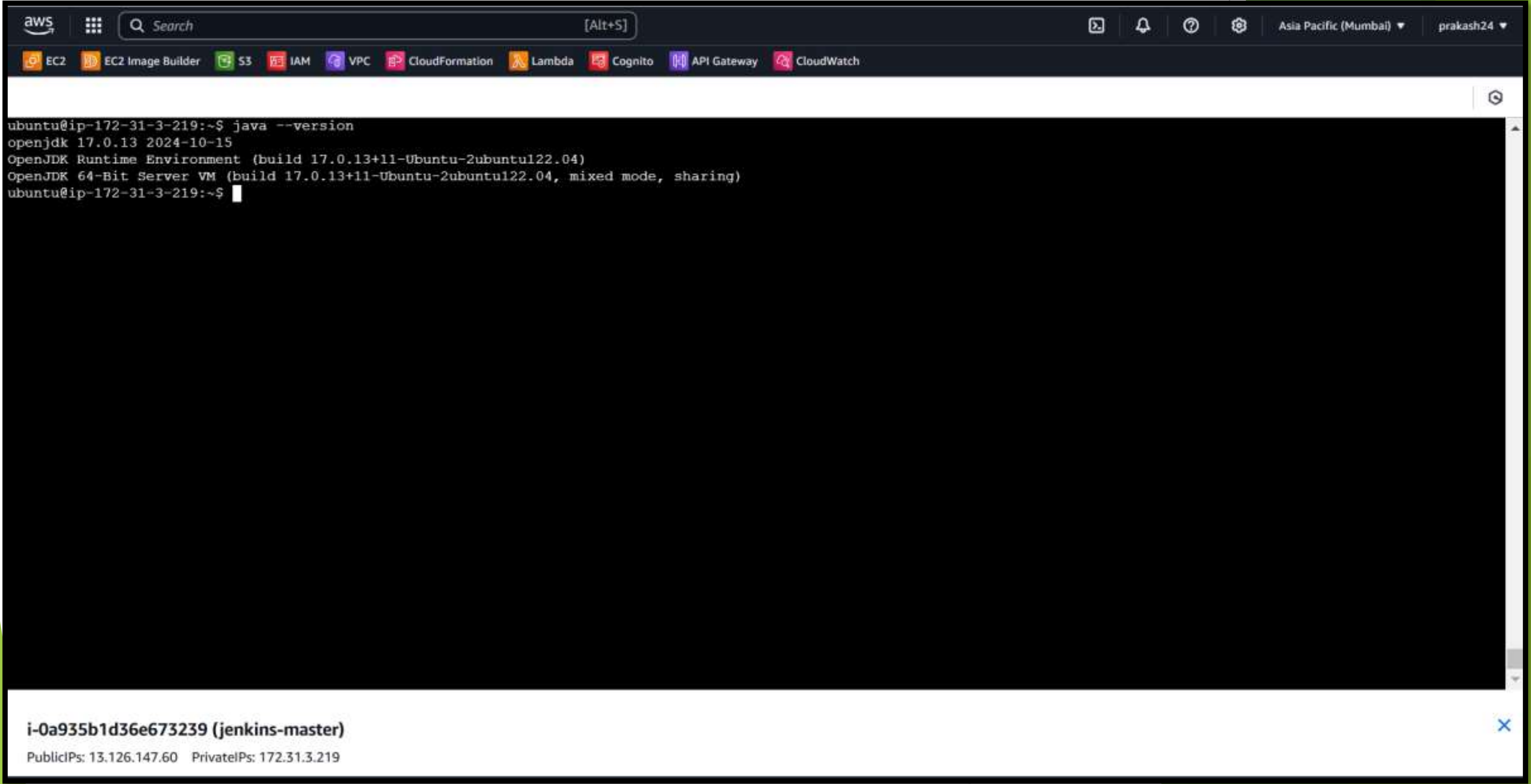
Private IP DNS name (IPv4 only)
ip-172-31-3-219.ap-south-1.compute.internal

Answer private resource DNS name
IPv4 (A)

Instance type
t2.micro

Elastic IP addresses

Ec2 Instance one master nodes

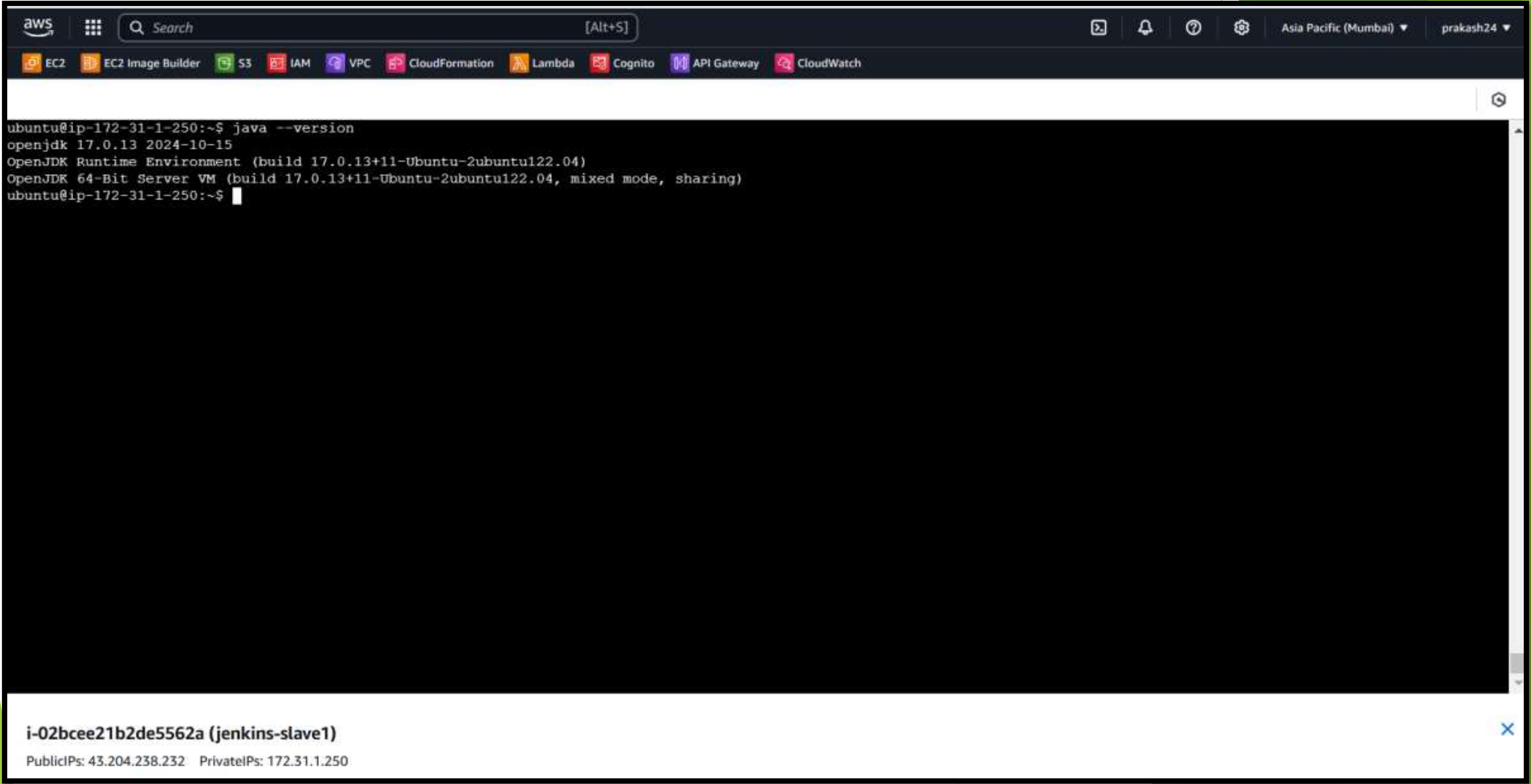


```
ubuntu@ip-172-31-3-219:~$ java --version
openjdk 17.0.13 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Ubuntu-2ubuntu122.04)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Ubuntu-2ubuntu122.04, mixed mode, sharing)
ubuntu@ip-172-31-3-219:~$
```

i-0a935b1d36e673239 (jenkins-master)

PublicIPs: 13.126.147.60   PrivateIPs: 172.31.3.219

Ec2 Instance Jenkins-slave1

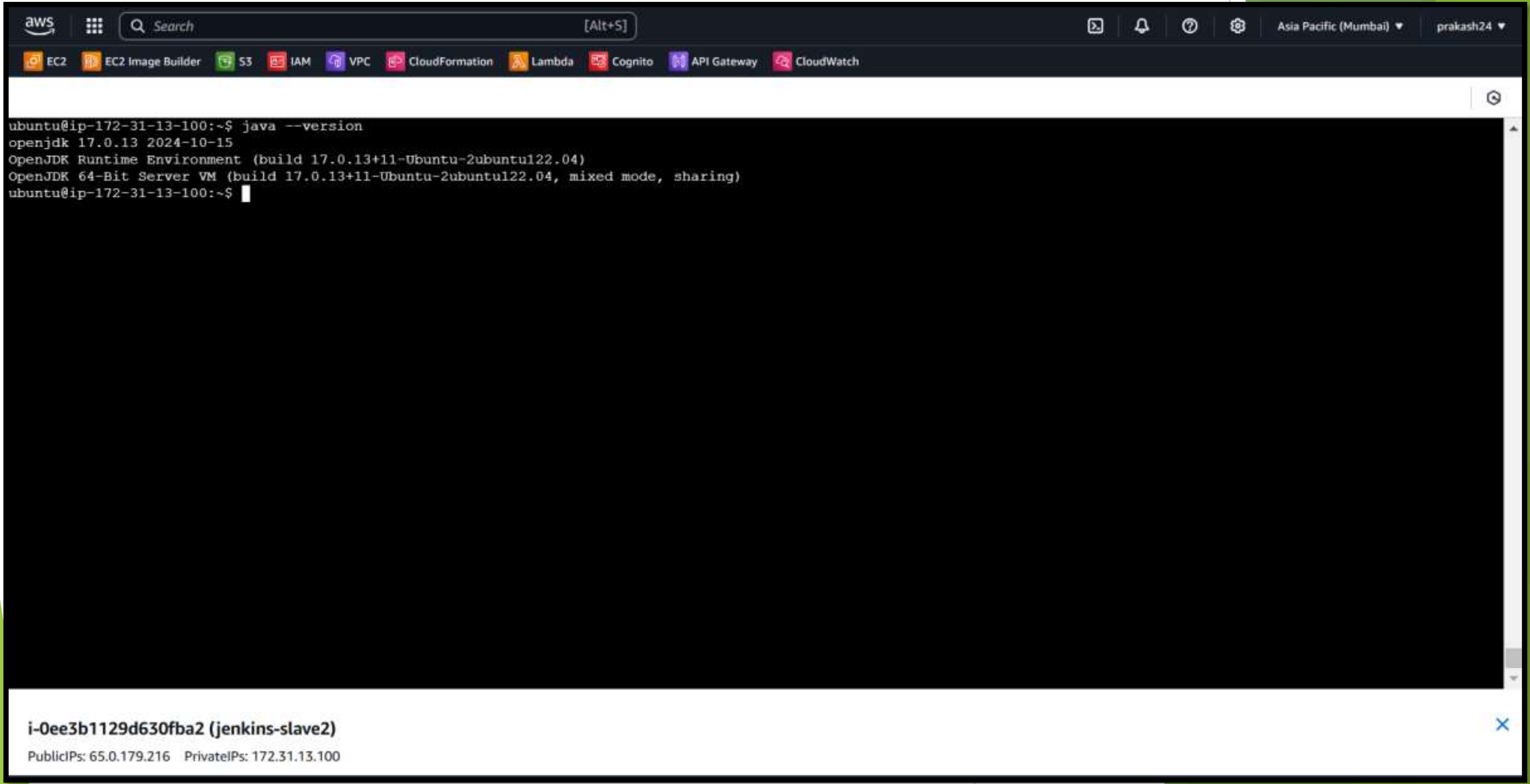


```
ubuntu@ip-172-31-1-250:~$ java --version
openjdk 17.0.13 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Ubuntu-2ubuntu122.04)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Ubuntu-2ubuntu122.04, mixed mode, sharing)
ubuntu@ip-172-31-1-250:~$
```

i-02bcee21b2de5562a (jenkins-slave1)

PublicIPs: 43.204.238.232 PrivateIPs: 172.31.1.250

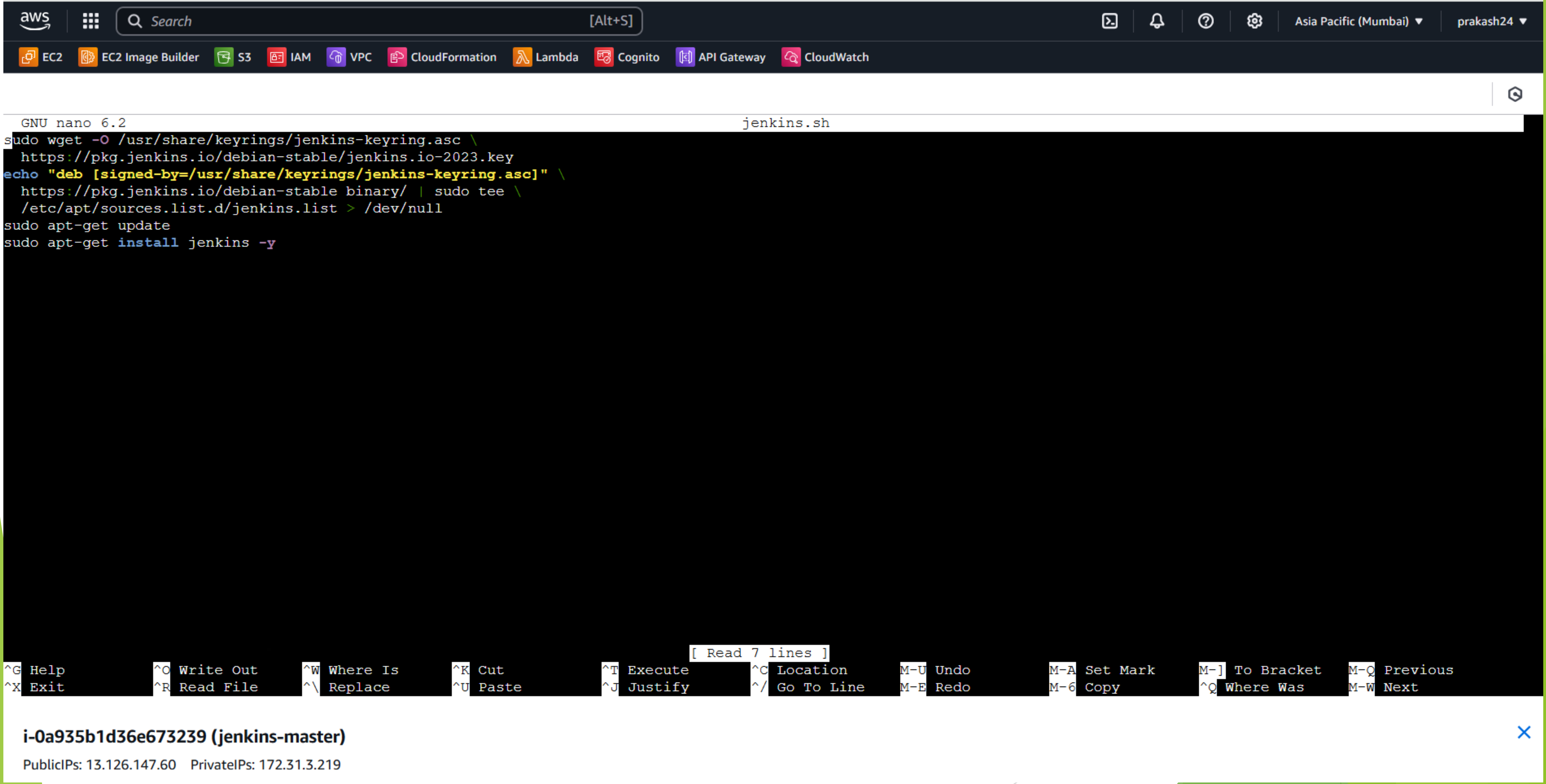
Ec2 Instance Jenkins-slave2



```
ubuntu@ip-172-31-13-100:~$ java --version
openjdk 17.0.13 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Ubuntu-2ubuntu122.04)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Ubuntu-2ubuntu122.04, mixed mode, sharing)
ubuntu@ip-172-31-13-100:~$
```

i-0ee3b1129d630fba2 (jenkins-slave2)

PublicIPs: 65.0.179.216 PrivateIPs: 172.31.13.100

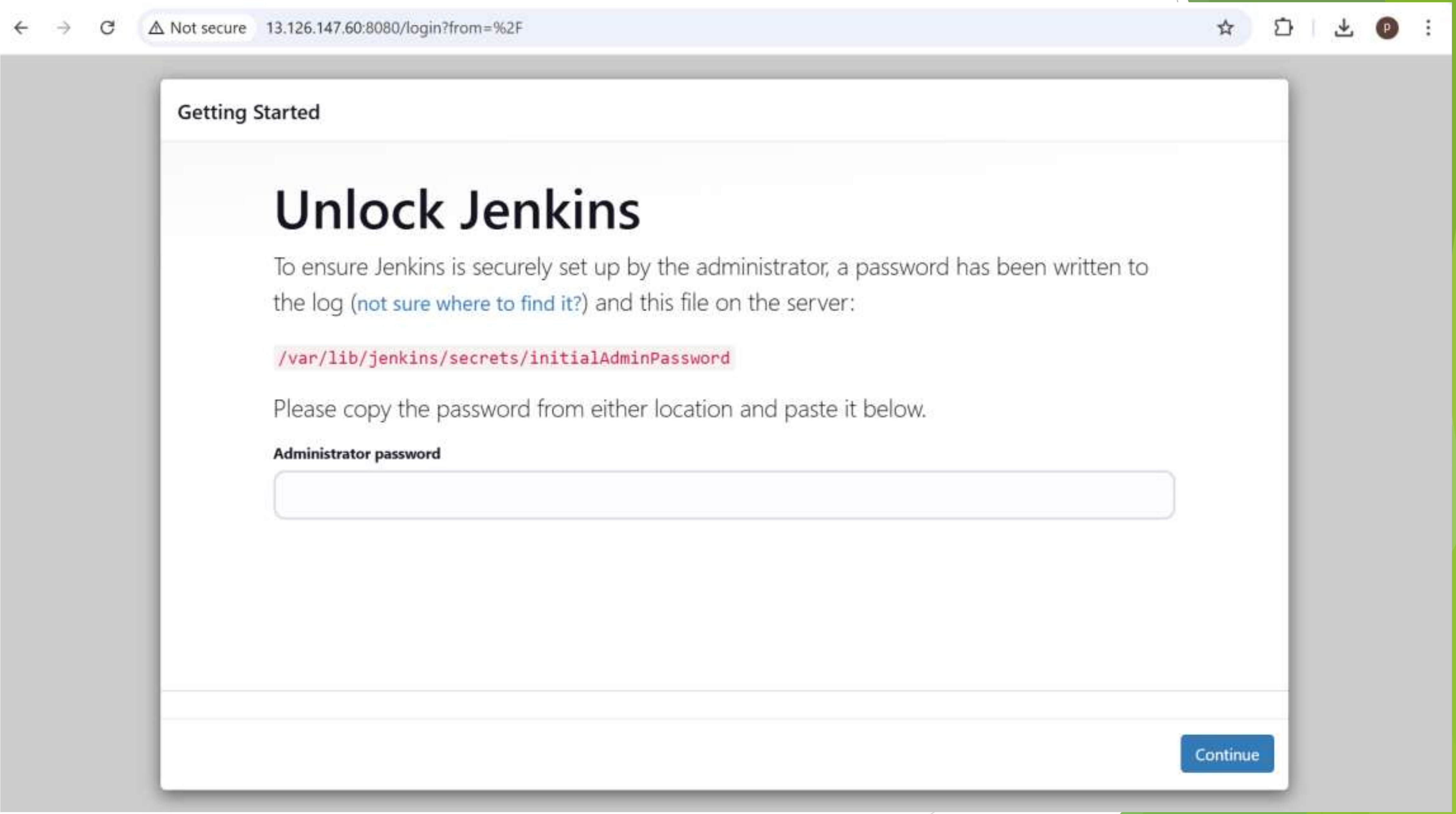


```
  GNU nano 6.2                                                jenkins.sh
sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
  https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]" \
  https://pkg.jenkins.io/debian-stable binary/ | sudo tee \
  /etc/apt/sources.list.d/jenkins.list > /dev/null
sudo apt-get update
sudo apt-get install jenkins -y

                                                           [ Read 7 lines ]
^G Help        ^O Write Out   ^W Where Is    ^K Cut         ^T Execute     ^C Location    M-U Undo       M-A Set Mark   M-] To Bracket M-Q Previous
^X Exit        ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line  M-E Redo       M-6 Copy       ^Q Where Was   M-W Next
```

i-0a935b1d36e673239 (jenkins-master)

PublicIPs: 13.126.147.60   PrivateIPs: 172.31.3.219

Jenkins landing page



Getting Started

Unlock Jenkins

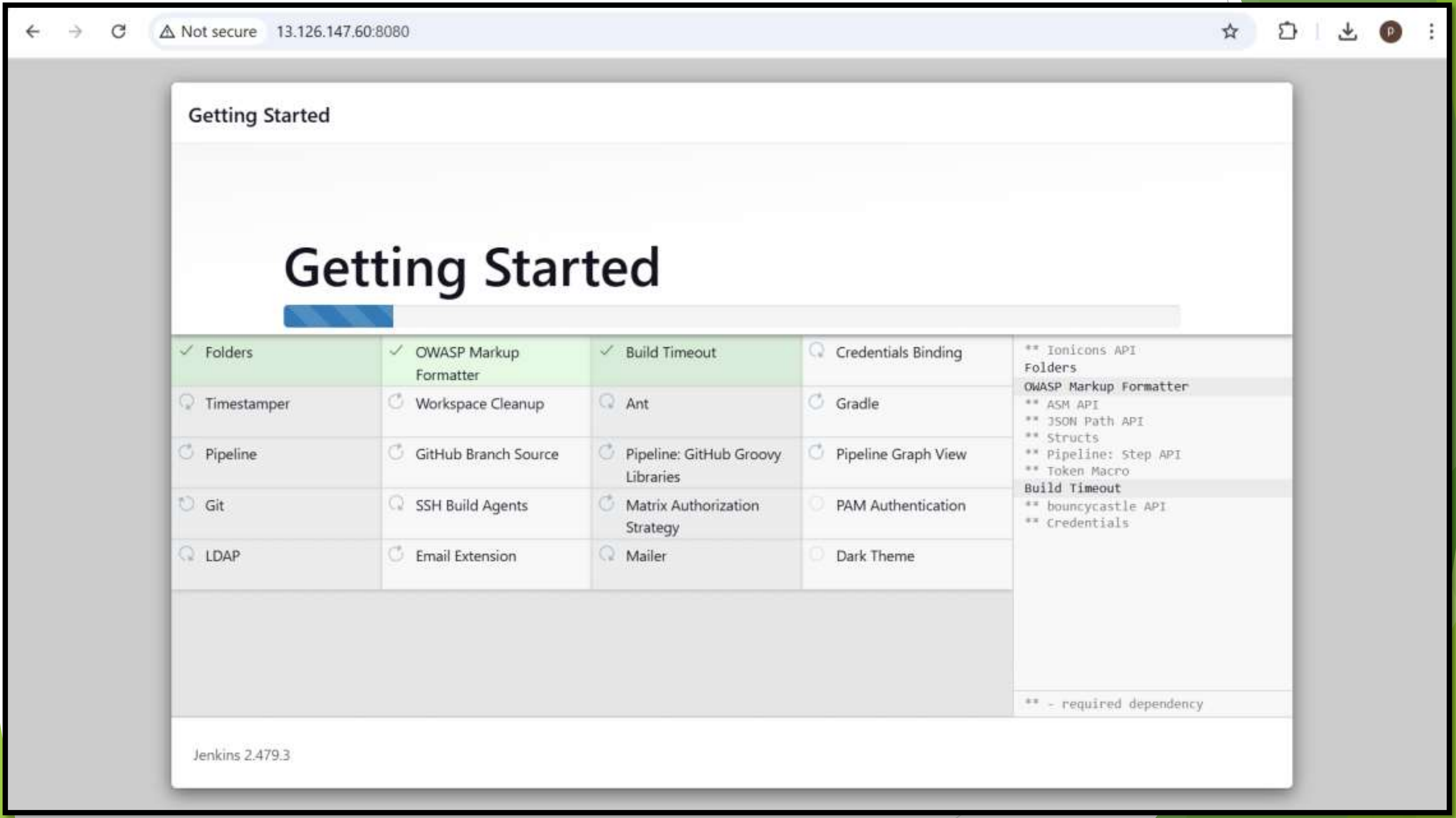
To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:

`/var/lib/jenkins/secrets/initialAdminPassword`

Please copy the password from either location and paste it below.

Administrator password

Installing all suggest plugin in Jenkins



Not secure 13.126.147.60:8080

Getting Started

Getting Started

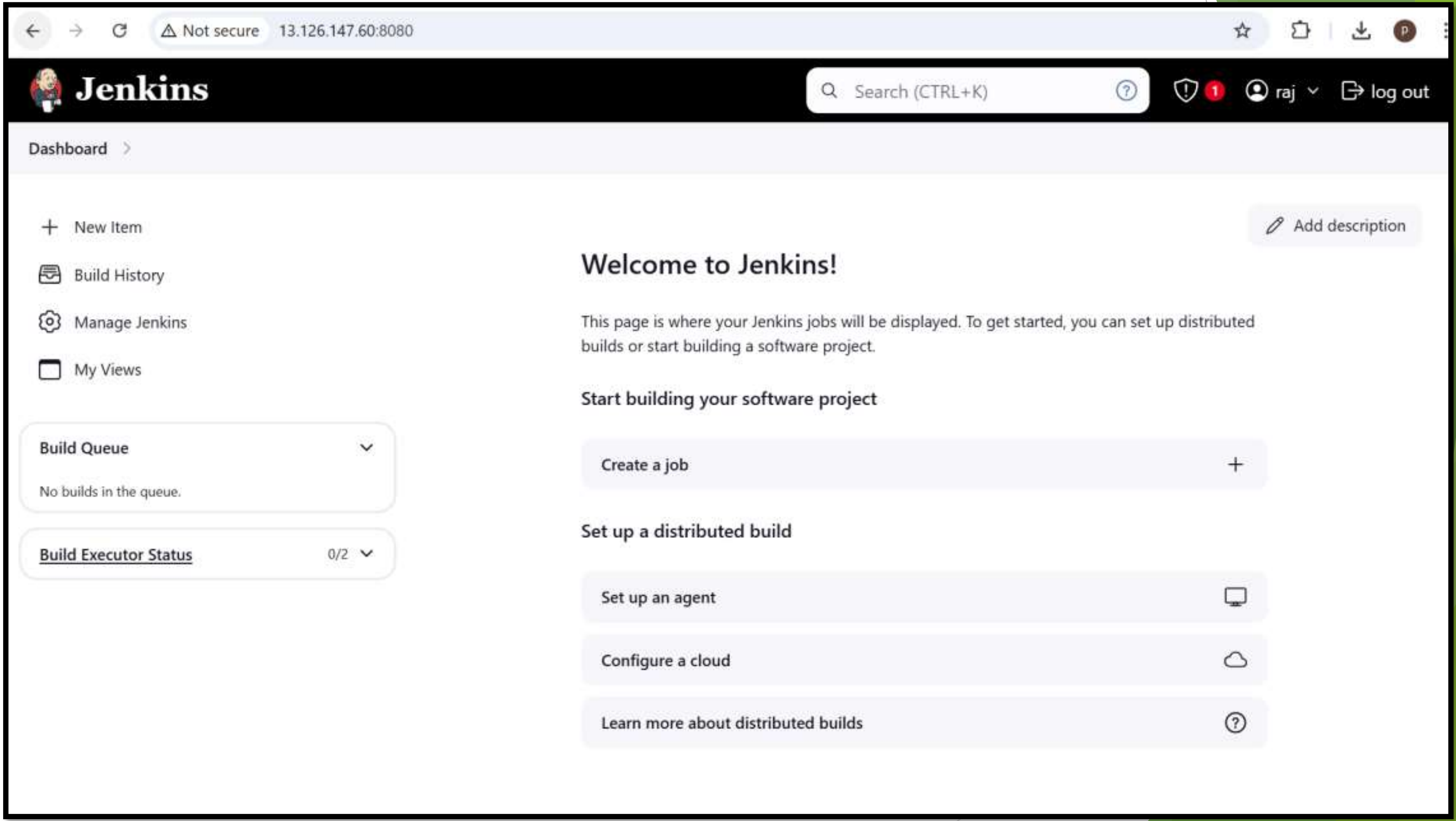
✓ Folders	✓ OWASP Markup Formatter	✓ Build Timeout	Credentials Binding
Timestamper	Workspace Cleanup	Ant	Gradle
Pipeline	GitHub Branch Source	Pipeline: GitHub Groovy Libraries	Pipeline Graph View
Git	SSH Build Agents	Matrix Authorization Strategy	PAM Authentication
LDAP	Email Extension	Mailer	Dark Theme

```
** Ionicons API
Folders
OWASP Markup Formatter
** ASM API
** JSON Path API
** Structs
** Pipeline: Step API
** Token Macro
Build Timeout
** bouncycastle API
** Credentials
```

```
** - required dependency
```

Jenkins 2.479.3

Home page of Jenkins



13.126.147.60:8080

Dashboard

Build Queue

No builds in the queue.

Build Executor Status 0/2

Welcome to Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

Start building your software project

Create a job +

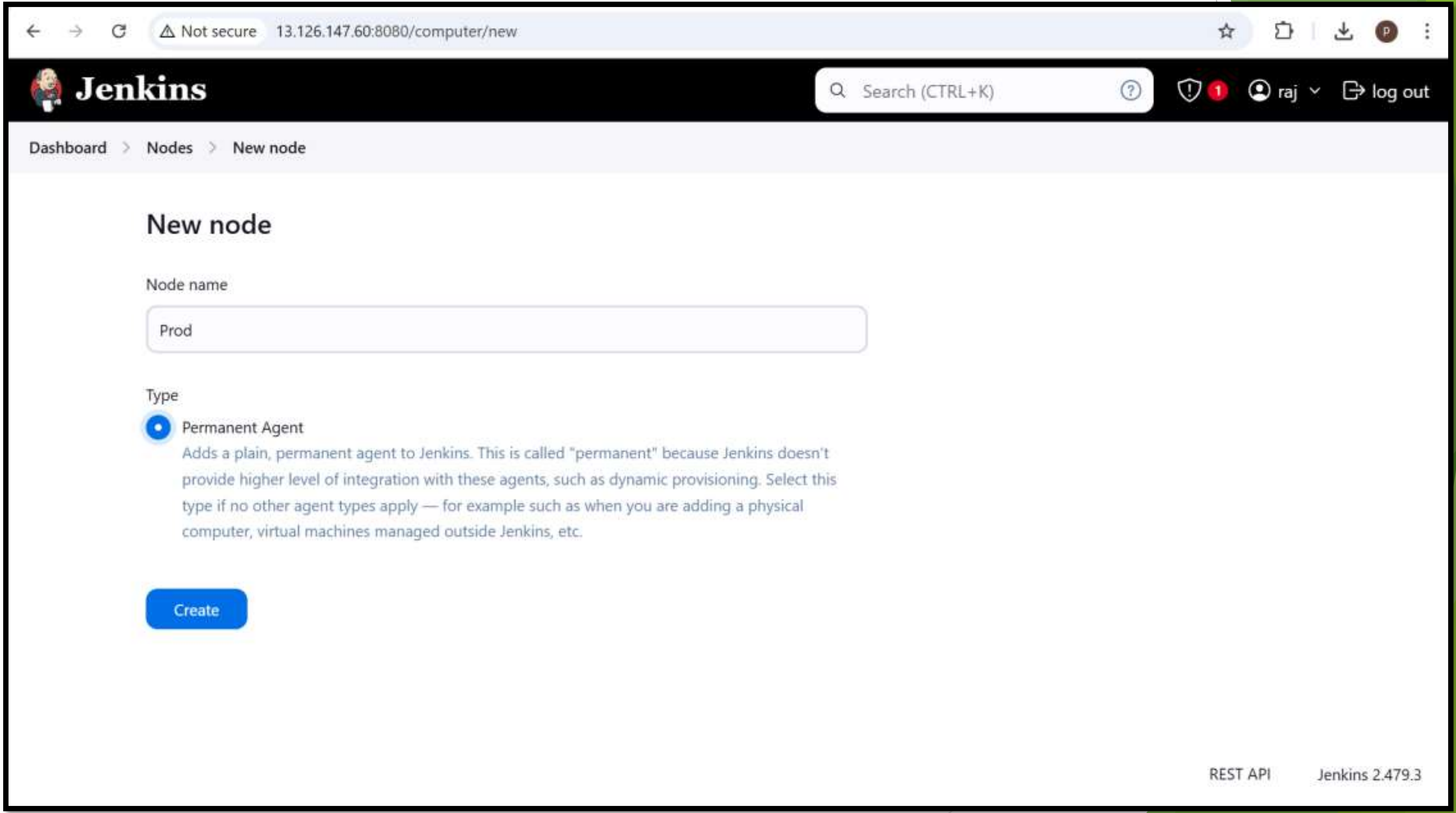
Set up a distributed build

Set up an agent

Configure a cloud

Learn more about distributed builds

Setting up Prod node in Jenkins



New node

Node name

Prod

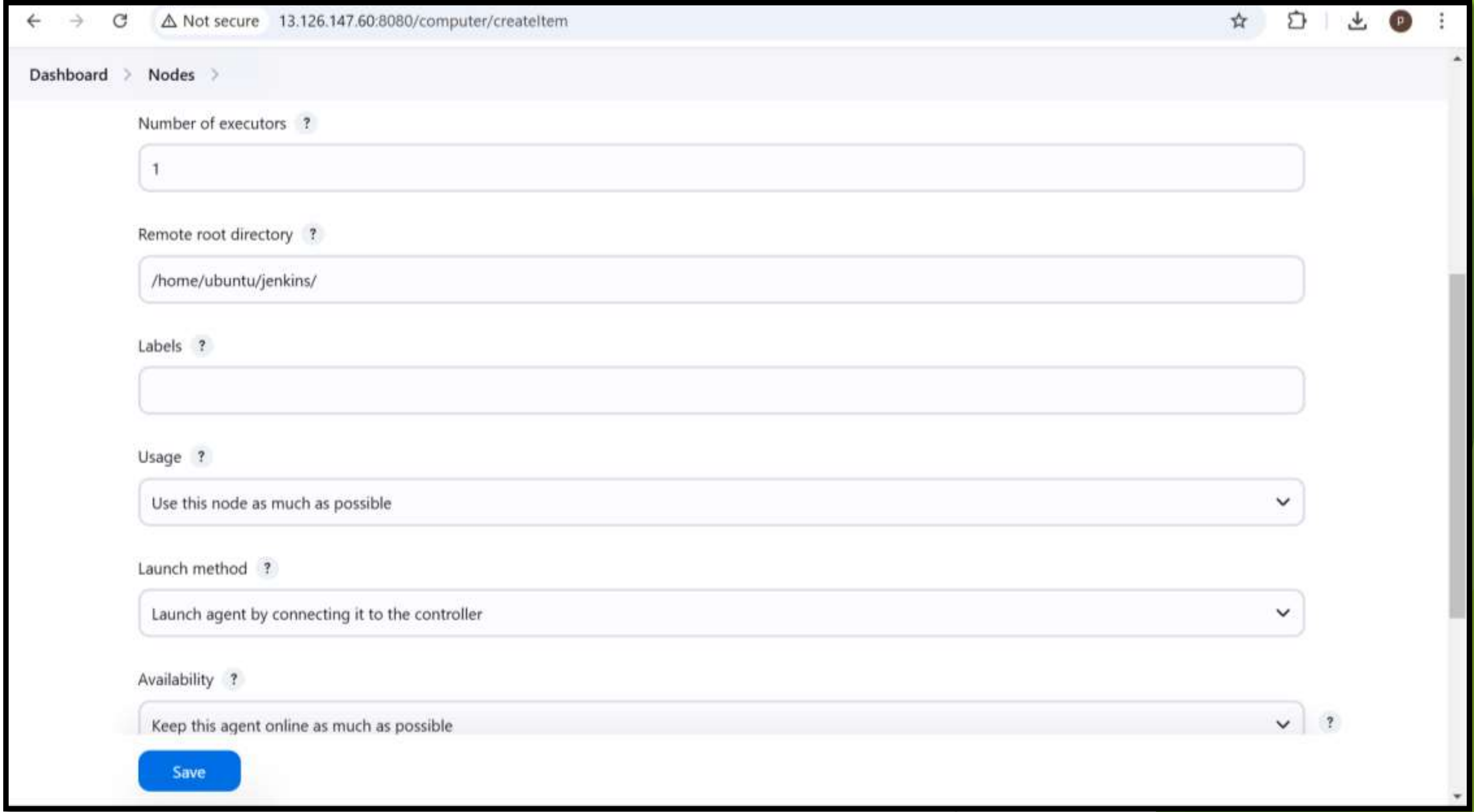
Type

● 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.

Create

Setting up Remote root directory for Prod node in Jenkins



Number of executors ?

1

Remote root directory ?

/home/ubuntu/jenkins/

Labels ?

Usage ?

Use this node as much as possible

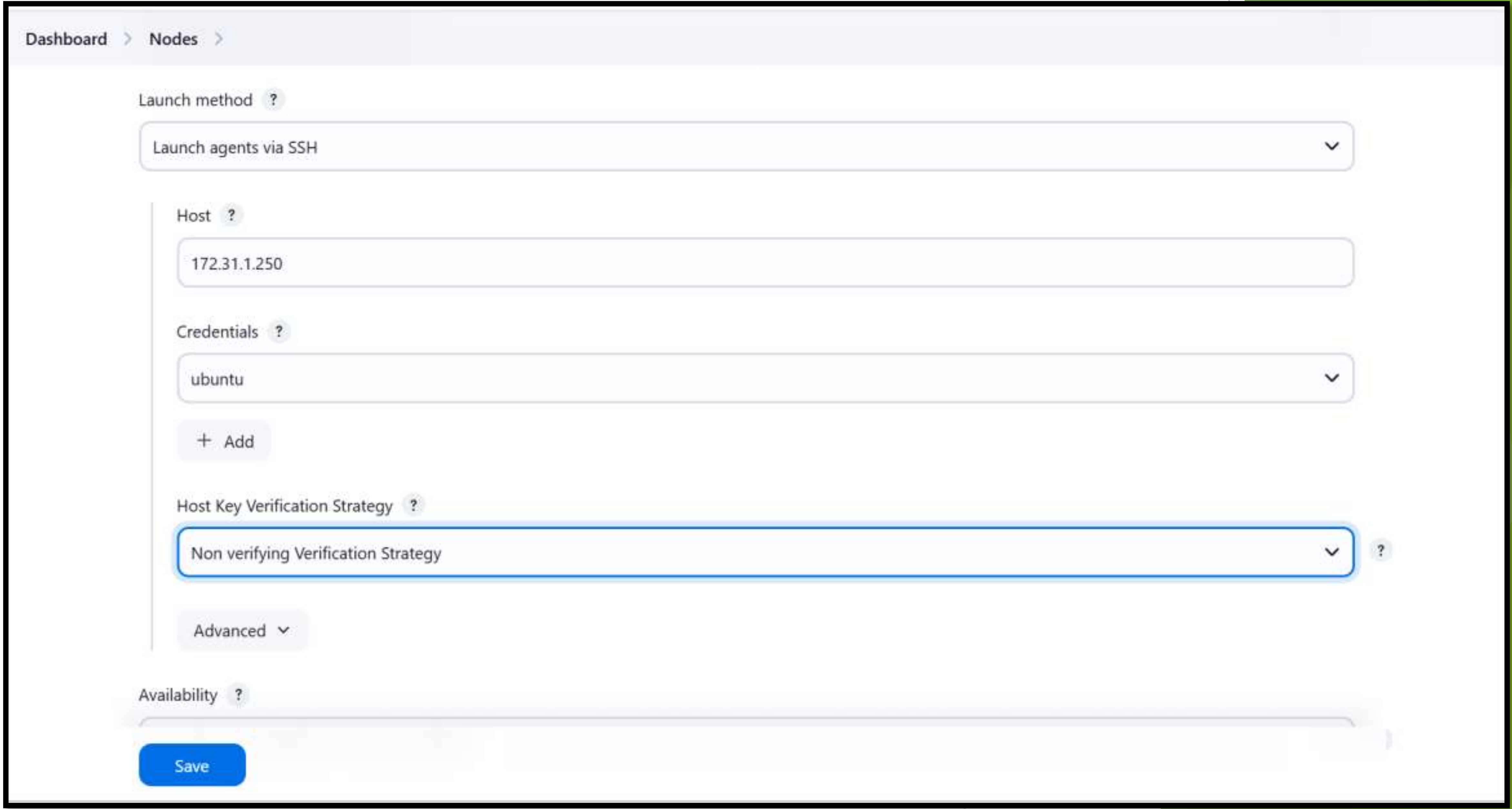
Launch method ?

Launch agent by connecting it to the controller

Availability ?

Keep this agent online as much as possible

Connecting Prod node with Slave1 Ec2 instance in Jenkins



Launch method ?

Launch agents via SSH

Host ?

172.31.1.250

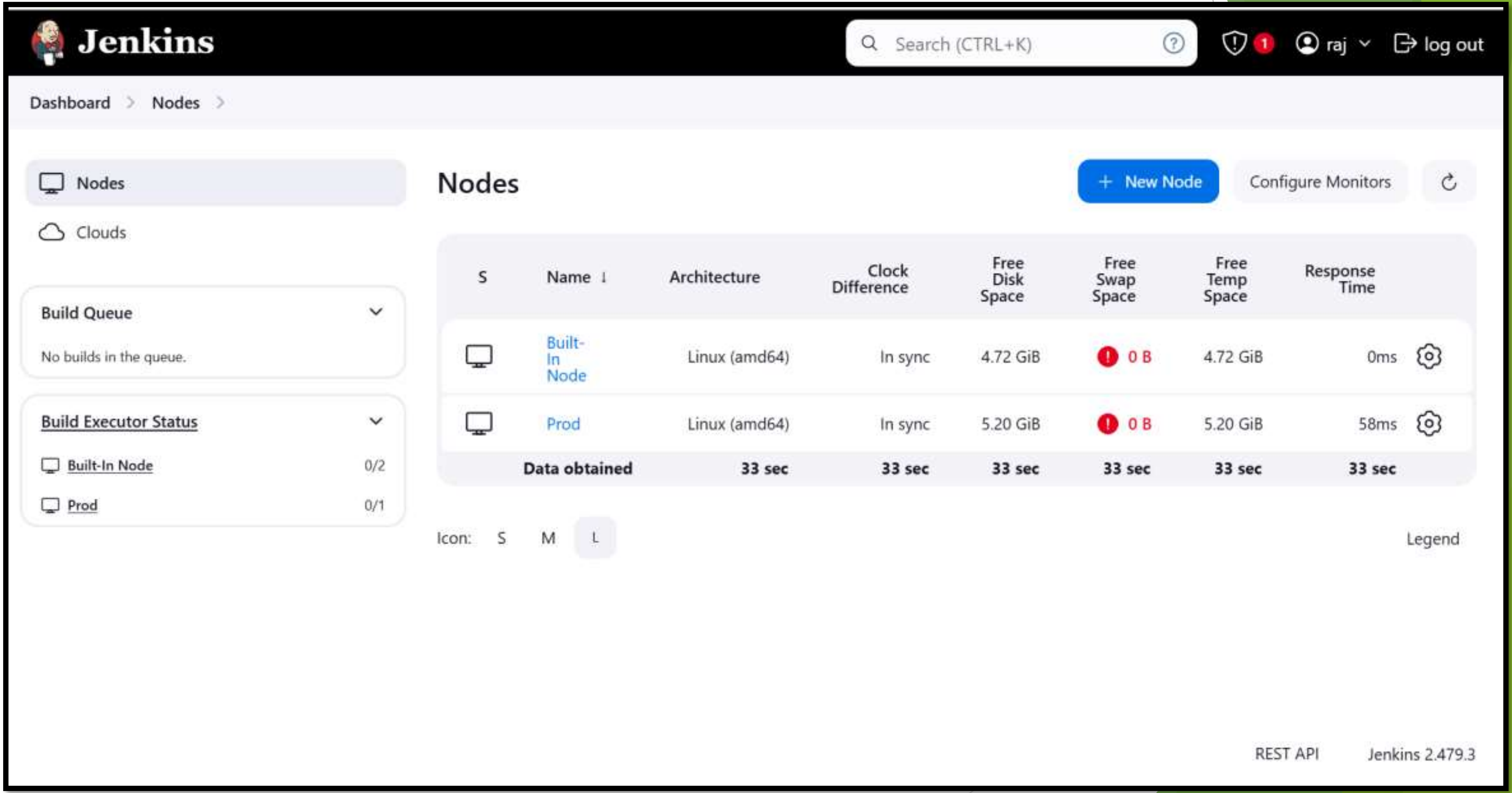
Credentials ?

ubuntu

Host Key Verification Strategy ?

Non verifying Verification Strategy

Prod node connected and online



Nodes

Build Queue

No builds in the queue.

Build Executor Status

Built-In Node	0/2
Prod	0/1

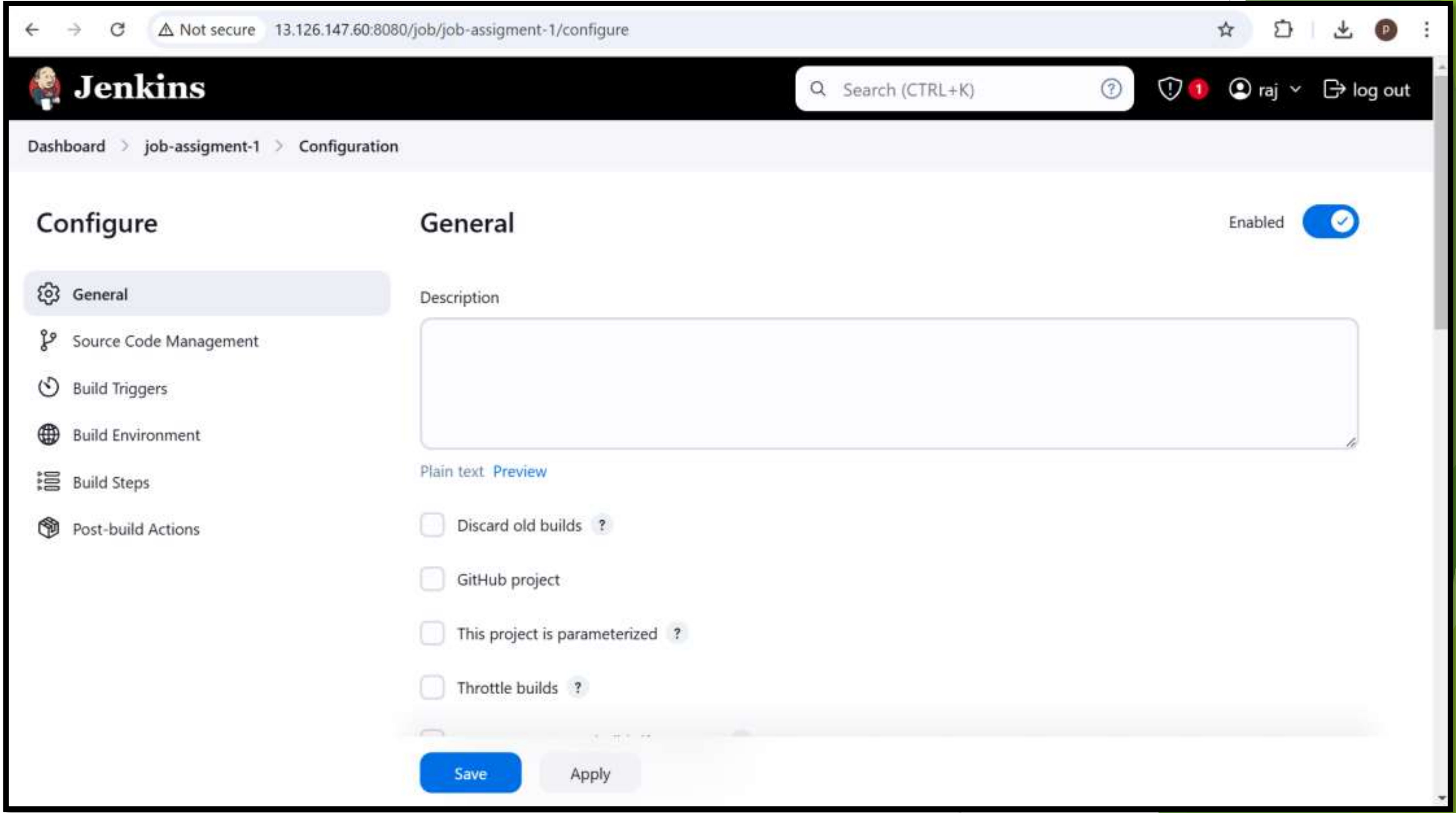
S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time	
🖵	Built-In Node	Linux (amd64)	In sync	4.72 GiB	! 0 B	4.72 GiB	0ms	⚙
🖵	Prod	Linux (amd64)	In sync	5.20 GiB	! 0 B	5.20 GiB	58ms	⚙
	Data obtained	33 sec	33 sec	33 sec	33 sec	33 sec	33 sec	

Icon: S M L

Legend

REST API Jenkins 2.479.3

Setting up a job job-assignment-1



Not secure 13.126.147.60:8080/job/job-assigment-1/configure

Configure

General

Enabled

Description

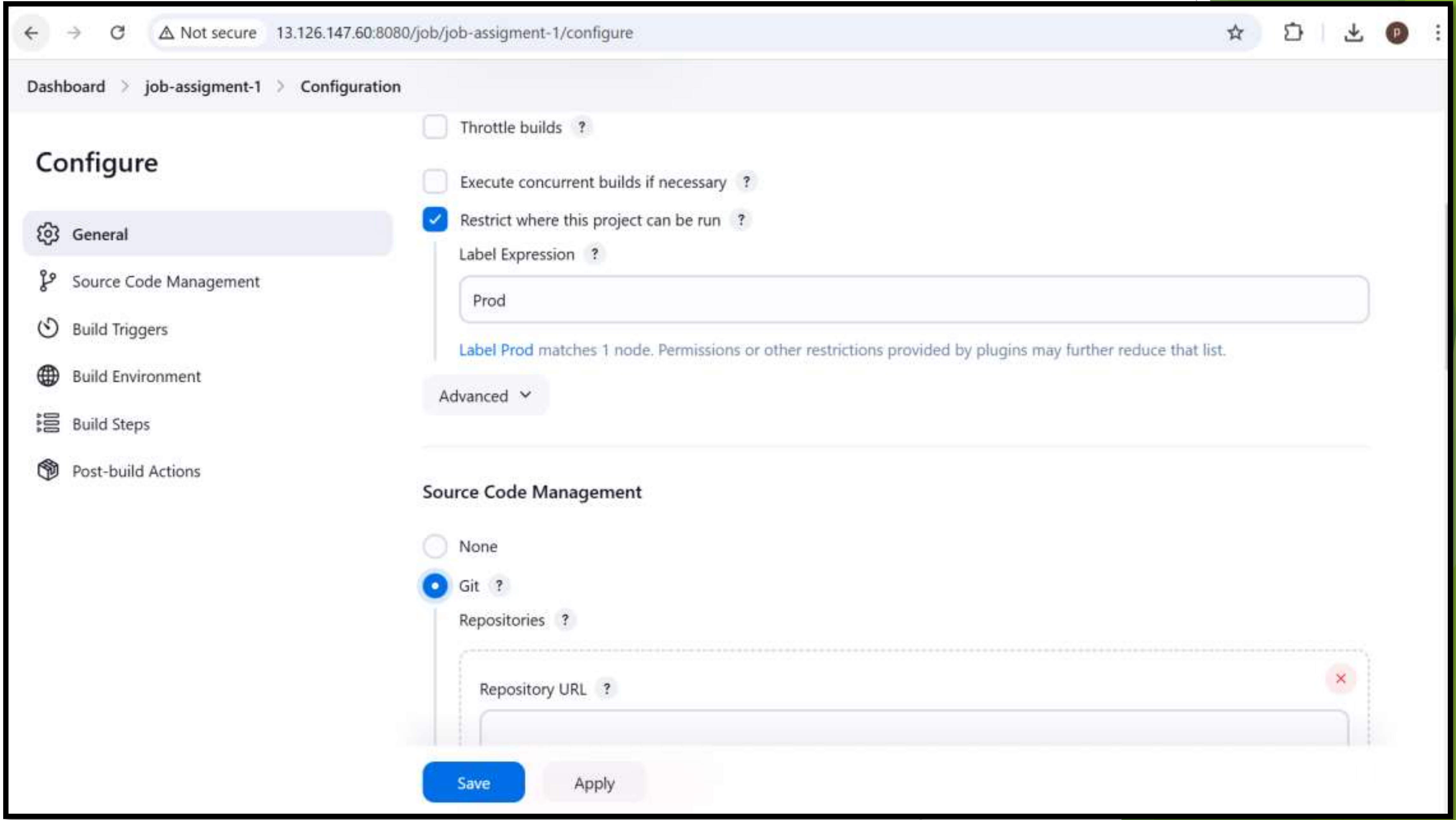
□ Discard old builds ?

□ GitHub project

□ This project is parameterized ?

□ Throttle builds ?

Restricting job-assignment-1 to Run Prod Node



□ Throttle builds ?

□ Execute concurrent builds if necessary ?

☑ Restrict where this project can be run ?

Label Expression ?

Prod

Label Prod matches 1 node. Permissions or other restrictions provided by plugins may further reduce that list.

Source Code Management

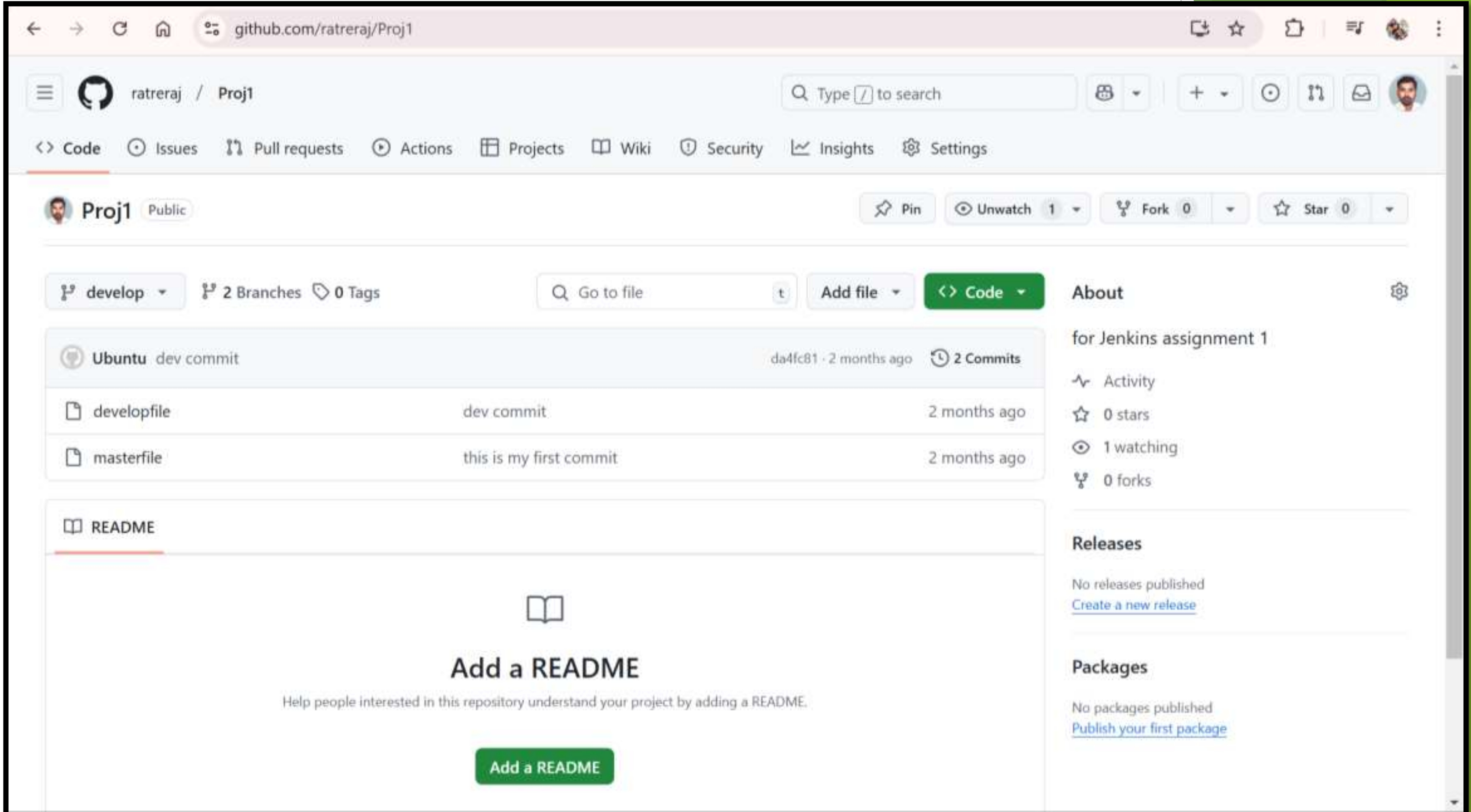
○ None

● Git ?

Repositories ?

Repository URL ?

Connecting GitHub repo to job-assignment-1 to Run Prod Node



github.com/ratreraj/Proj1

ratreraj / Proj1

Proj1 Public

develop · 2 Branches · 0 Tags

Ubuntu dev commit · da4fc81 · 2 months ago · 2 Commits

developfile	dev commit	2 months ago
masterfile	this is my first commit	2 months ago

README

Add a README

Help people interested in this repository understand your project by adding a README.

About

for Jenkins assignment 1

Activity

0 stars

1 watching

0 forks

Releases

No releases published

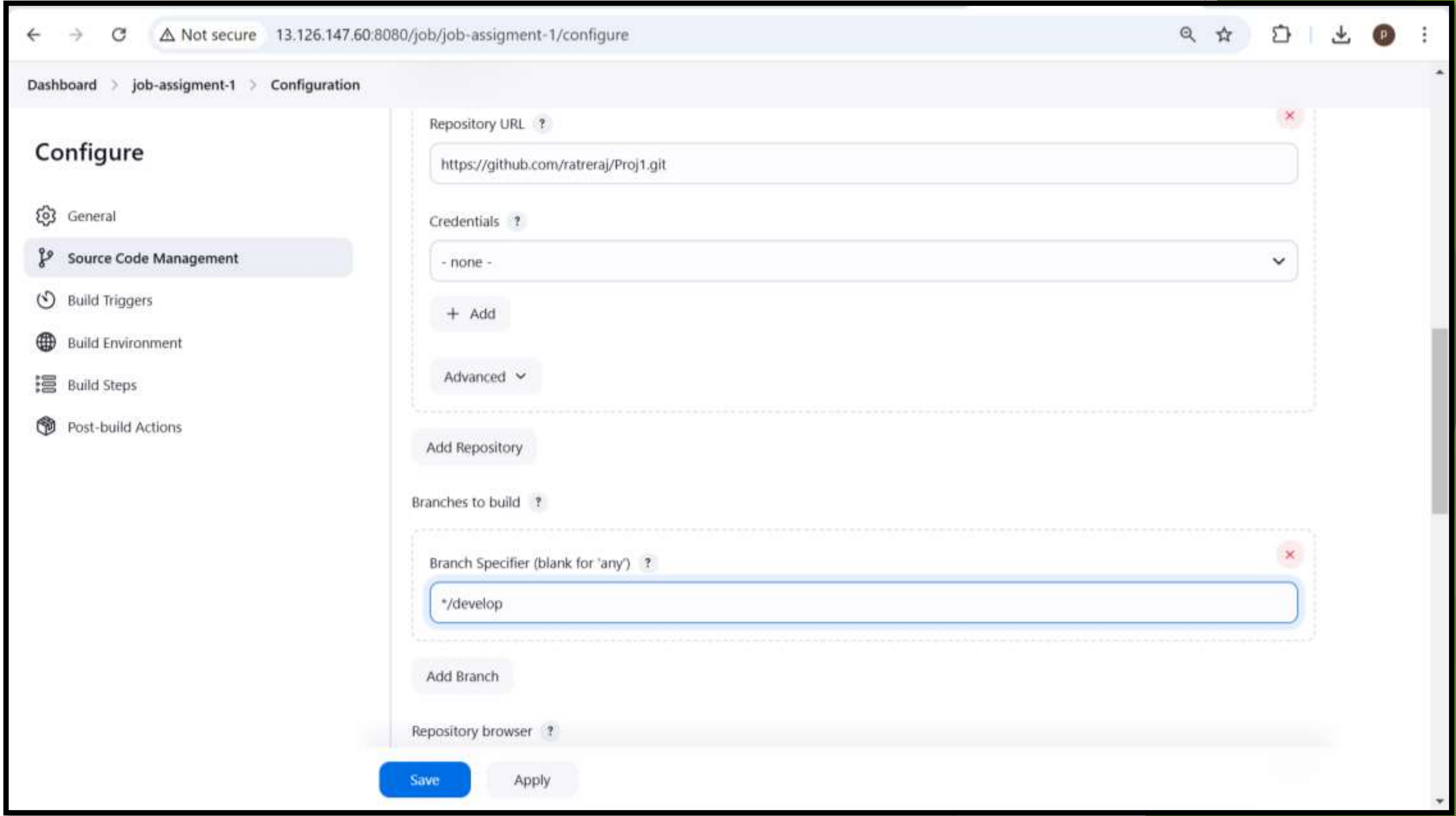
Create a new release

Packages

No packages published

Publish your first package

Configuring GitHub repo & branch for job-assignment-1



Not secure 13.126.147.60:8080/job/job-assigment-1/configure

Dashboard > job-assigment-1 > Configuration

Configure

- General
- Source Code Management
- Build Triggers
- Build Environment
- Build Steps
- Post-build Actions

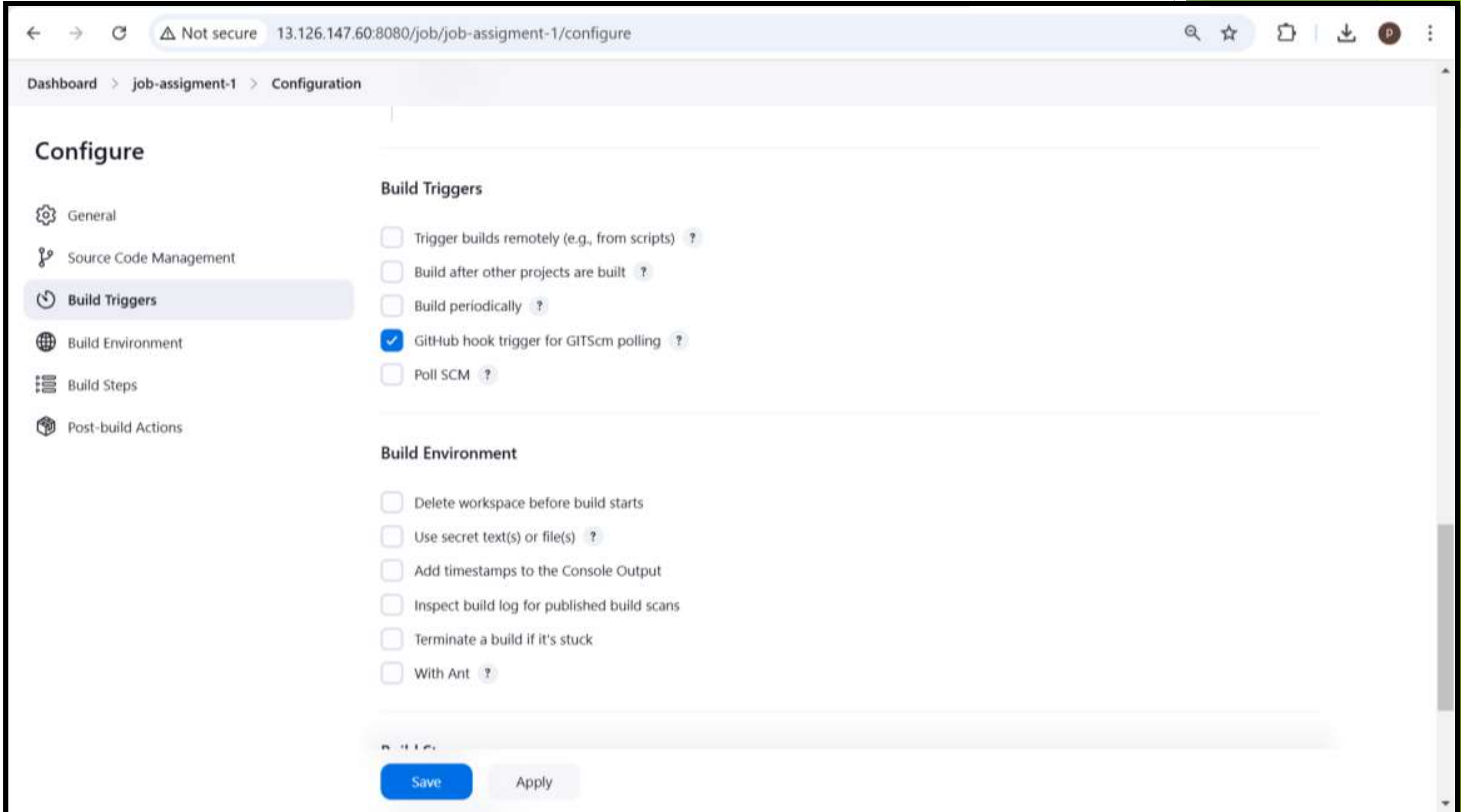
Repository URL: https://github.com/ratreraj/Proj1.git

Credentials: - none -

Branches to build

Branch Specifier (blank for 'any'): */develop

Setting up build triggers on git changes for job-assignment-1



Not secure
13.126.147.60:8080/job/job-assigment-1/configure
Dashboard > job-assigment-1 > Configuration

Configure

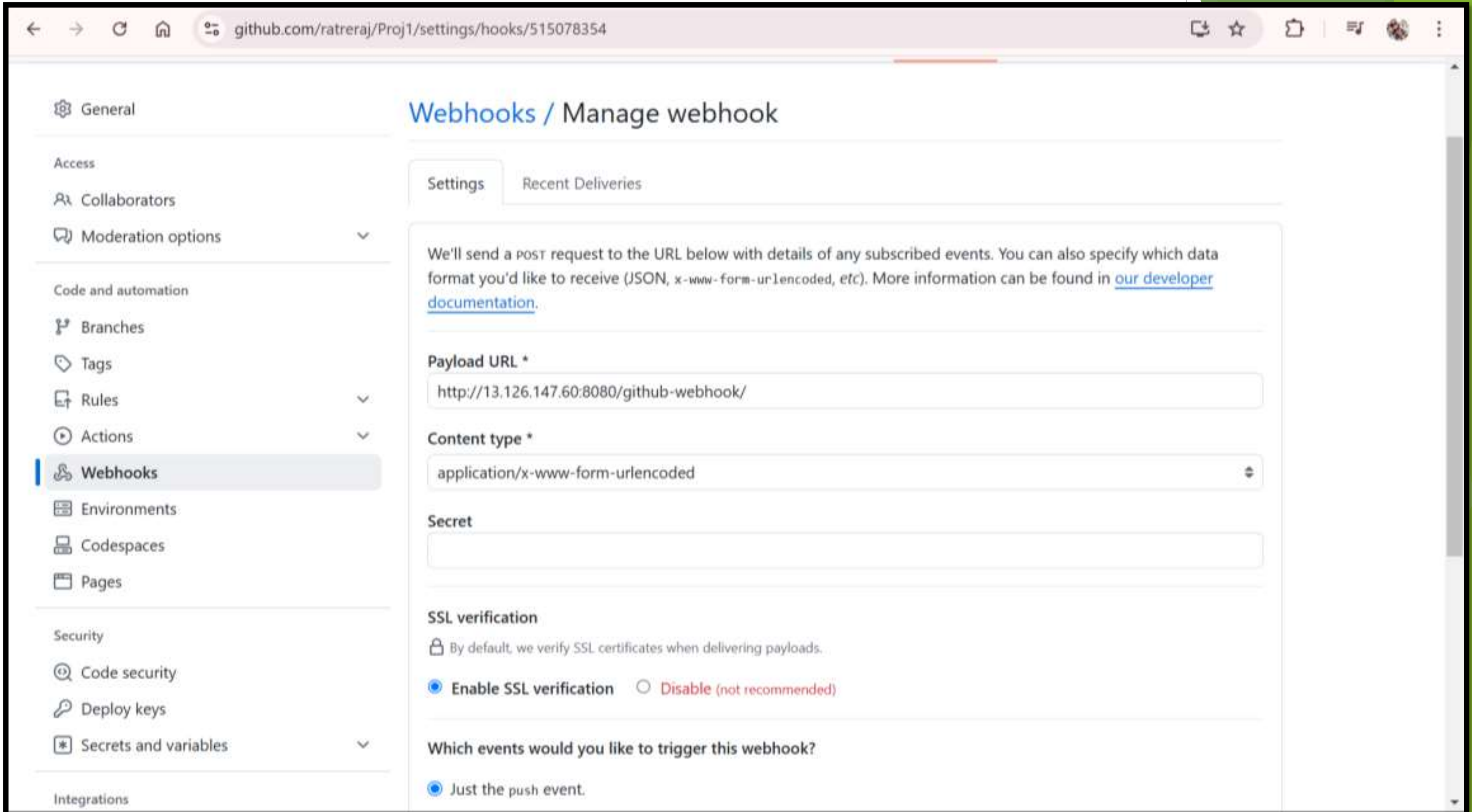
Build Triggers

- ☐ Trigger builds remotely (e.g., from scripts) ?
- ☐ Build after other projects are built ?
- ☐ Build periodically ?
- ☑ GitHub hook trigger for GITScm polling ?
- ☐ Poll SCM ?

Build Environment

- ☐ Delete workspace before build starts
- ☐ Use secret text(s) or file(s) ?
- ☐ Add timestamps to the Console Output
- ☐ Inspect build log for published build scans
- ☐ Terminate a build if it's stuck
- ☐ With Ant ?

Setting a webhooks github



github.com/ratreraj/Proj1/settings/hooks/515078354

Webhooks / Manage webhook

We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, `x-www-form-urlencoded`, *etc*). More information can be found in our developer documentation.

Payload URL *

http://13.126.147.60:8080/github-webhook/

Content type *

application/x-www-form-urlencoded

Secret

SSL verification

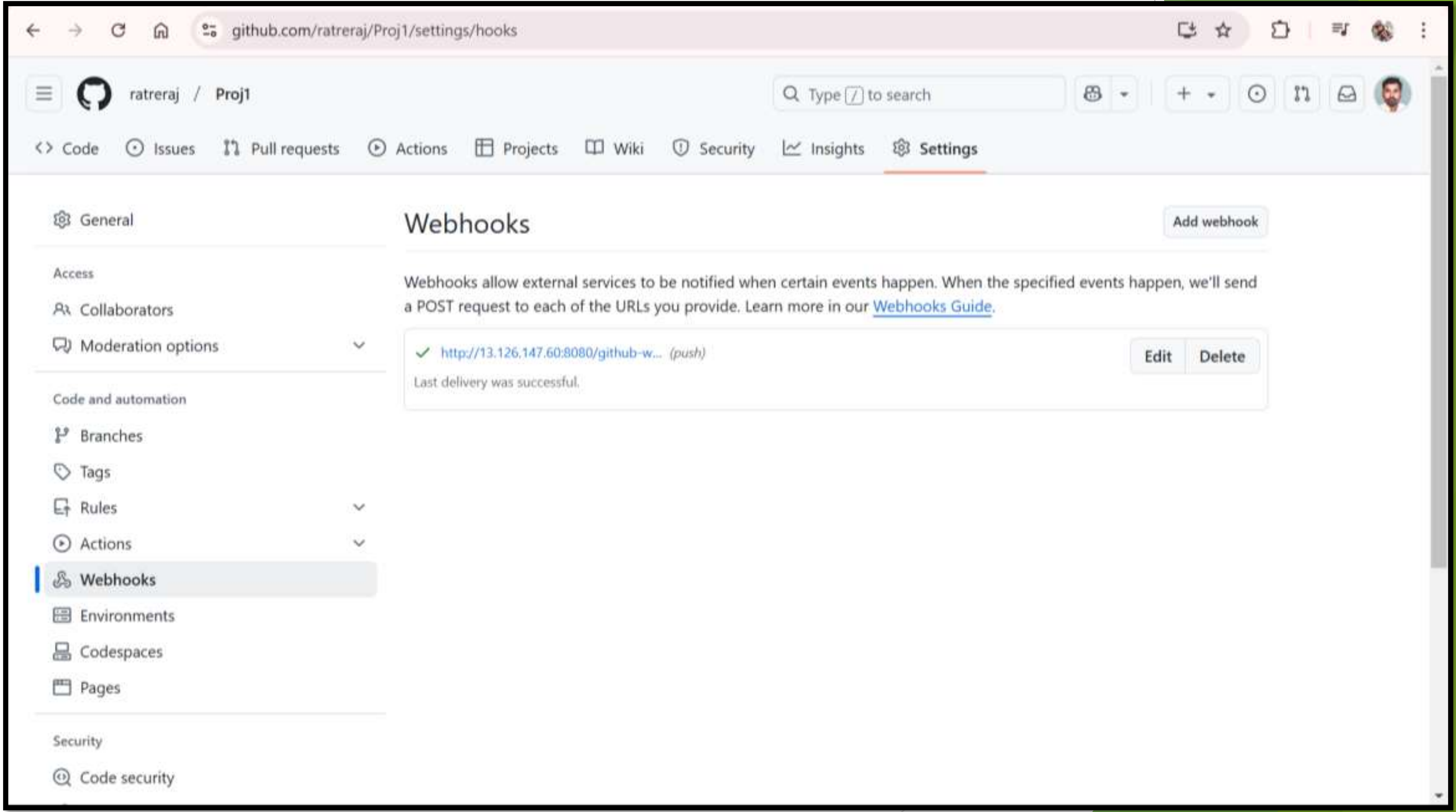
By default, we verify SSL certificates when delivering payloads.

● Enable SSL verification ○ Disable (not recommended)

Which events would you like to trigger this webhook?

● Just the push event.

Webhook delivery is successful



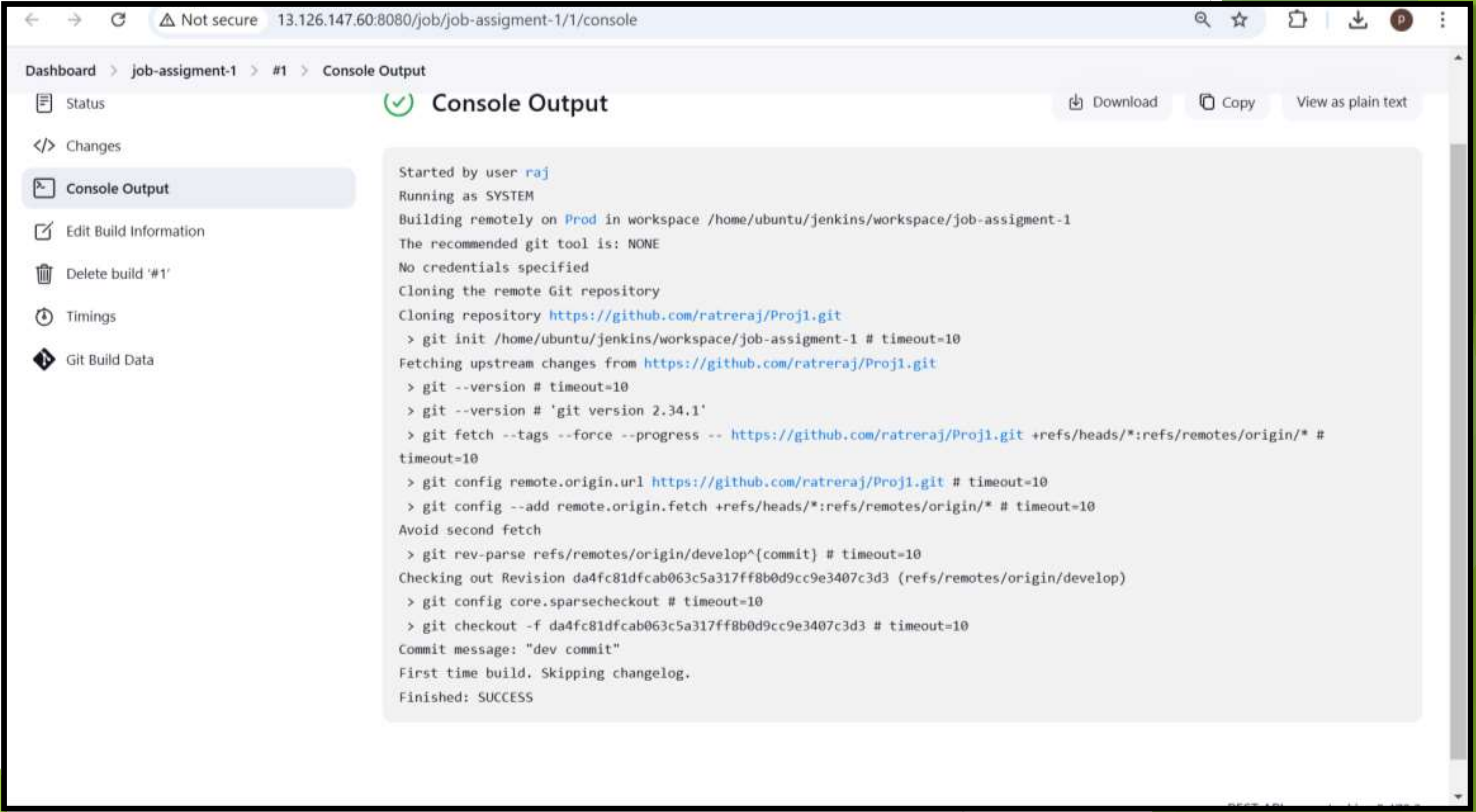
Webhooks

Webhooks allow external services to be notified when certain events happen. When the specified events happen, we'll send a POST request to each of the URLs you provide. Learn more in our Webhooks Guide.

✓ http://13.126.147.60:8080/github-w... *(push)*

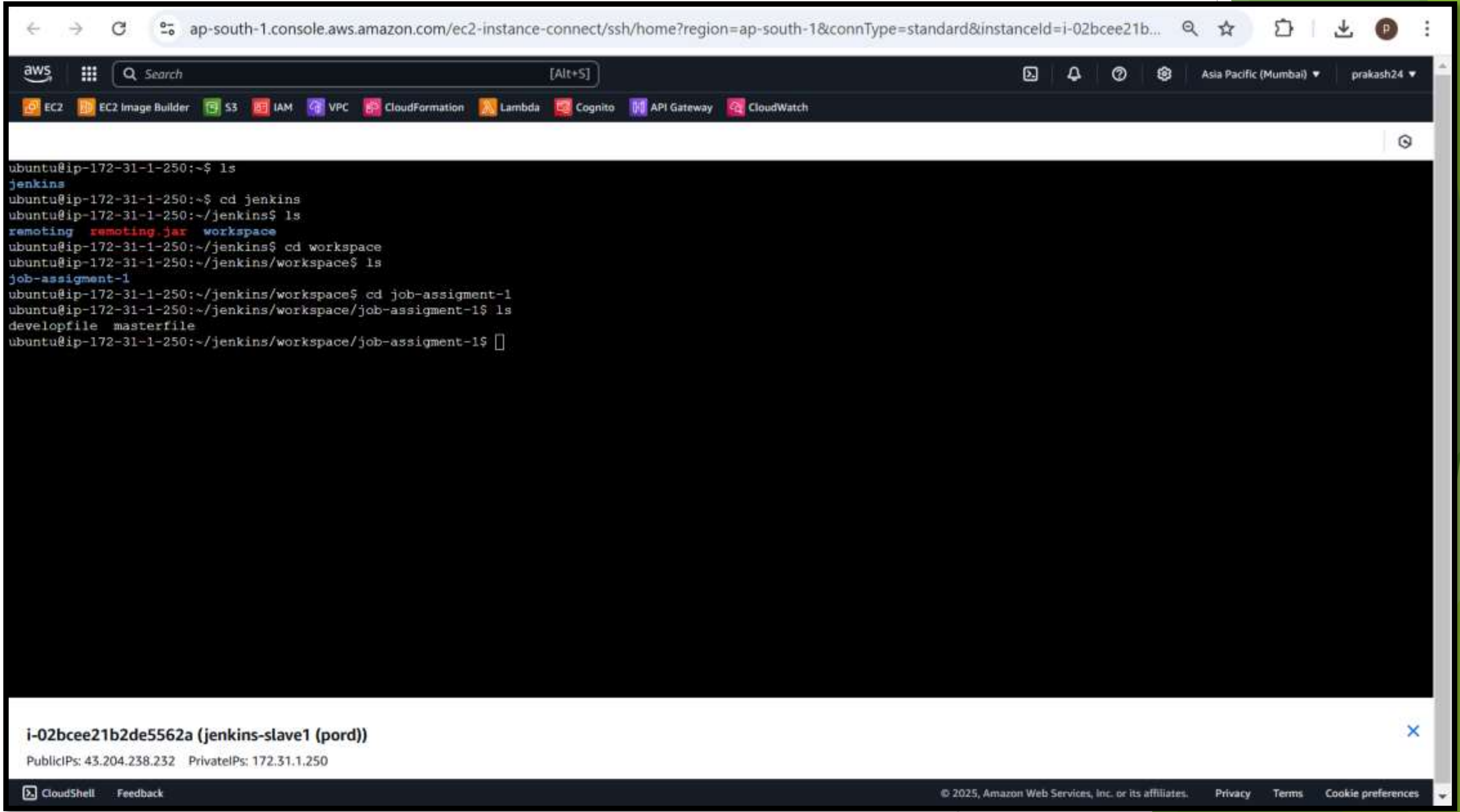
Last delivery was successful.

Run the job-assignment-1 we can see the console output successful



```
Started by user raj
Running as SYSTEM
Building remotely on Prod in workspace /home/ubuntu/jenkins/workspace/job-assigment-1
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/ratreraj/Proj1.git
 > git init /home/ubuntu/jenkins/workspace/job-assigment-1 # timeout=10
Fetching upstream changes from https://github.com/ratreraj/Proj1.git
 > git --version # timeout=10
 > git --version # 'git version 2.34.1'
 > git fetch --tags --force --progress -- https://github.com/ratreraj/Proj1.git +refs/heads/*:refs/remotes/origin/* #
timeout=10
 > git config remote.origin.url https://github.com/ratreraj/Proj1.git # timeout=10
 > git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
 > git rev-parse refs/remotes/origin/develop^{commit} # timeout=10
Checking out Revision da4fc81dfcab063c5a317ff8b0d9cc9e3407c3d3 (refs/remotes/origin/develop)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f da4fc81dfcab063c5a317ff8b0d9cc9e3407c3d3 # timeout=10
Commit message: "dev commit"
First time build. Skipping changelog.
Finished: SUCCESS
```

We can see the files present in workspace folder

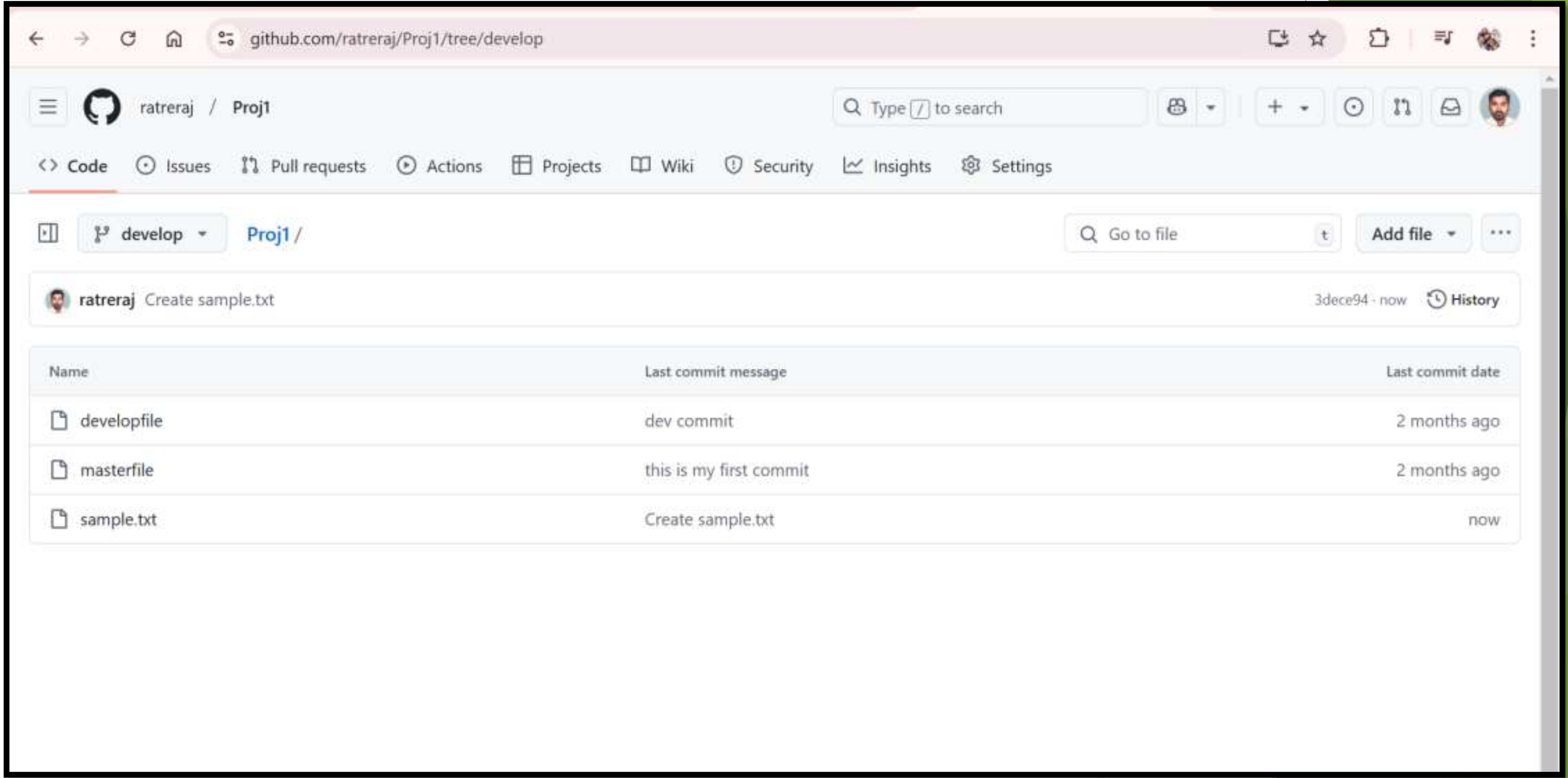


```
ubuntu@ip-172-31-1-250:~$ ls
jenkins
ubuntu@ip-172-31-1-250:~$ cd jenkins
ubuntu@ip-172-31-1-250:~/jenkins$ ls
remoting  remoting.jar  workspace
ubuntu@ip-172-31-1-250:~/jenkins$ cd workspace
ubuntu@ip-172-31-1-250:~/jenkins/workspace$ ls
job-assigment-1
ubuntu@ip-172-31-1-250:~/jenkins/workspace$ cd job-assigment-1
ubuntu@ip-172-31-1-250:~/jenkins/workspace/job-assigment-1$ ls
developfile  masterfile
ubuntu@ip-172-31-1-250:~/jenkins/workspace/job-assigment-1$ 
```

i-02bcee21b2de5562a (jenkins-slave1 (pord))

PublicIPs: 43.204.238.232   PrivateIPs: 172.31.1.250

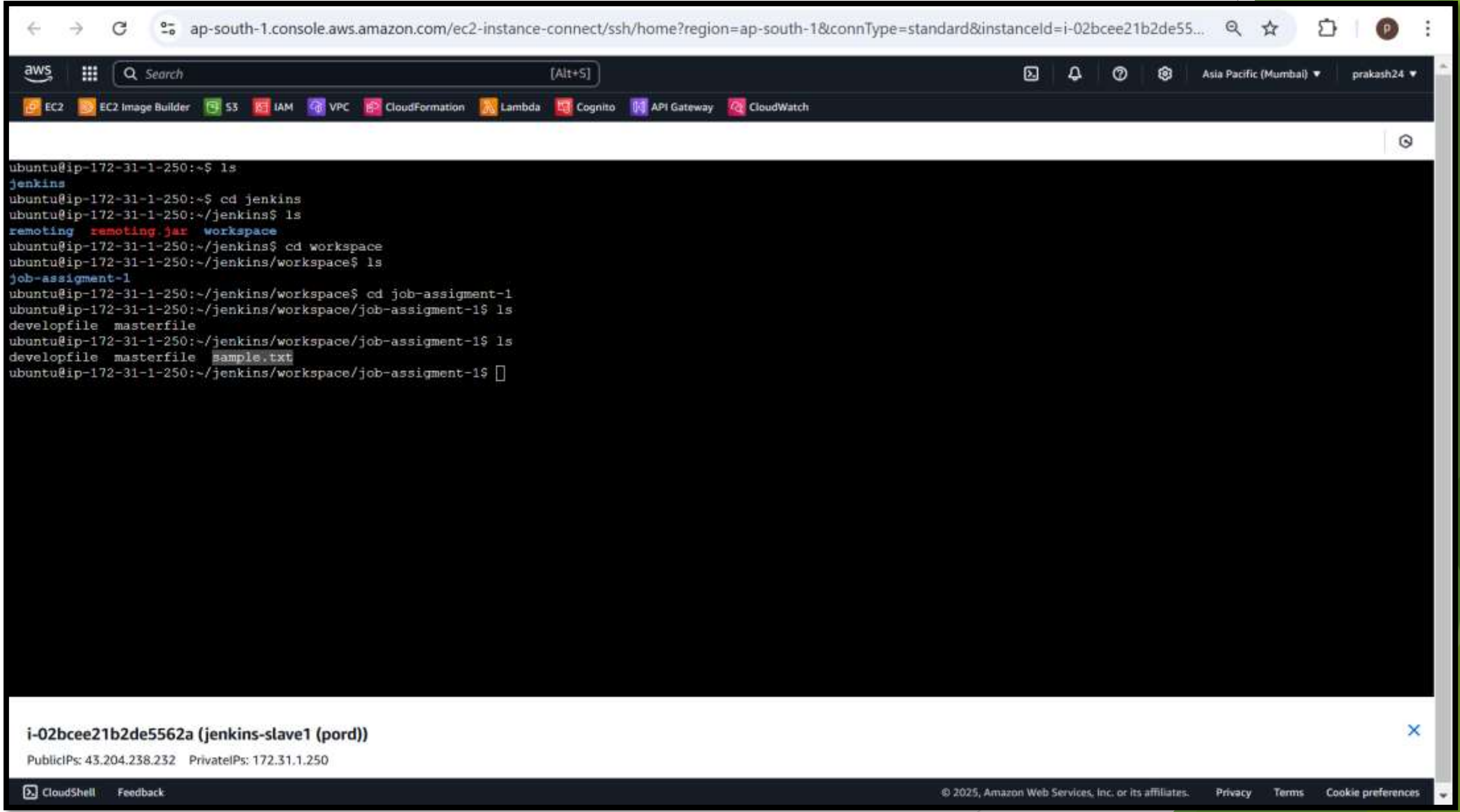
Added new file sample.txt in develop branch



ratreraj Create sample.txt 3dece94 · now

Name	Last commit message	Last commit date
developfile	dev commit	2 months ago
masterfile	this is my first commit	2 months ago
sample.txt	Create sample.txt	now

We can see the sample.txt file in workspace after job run



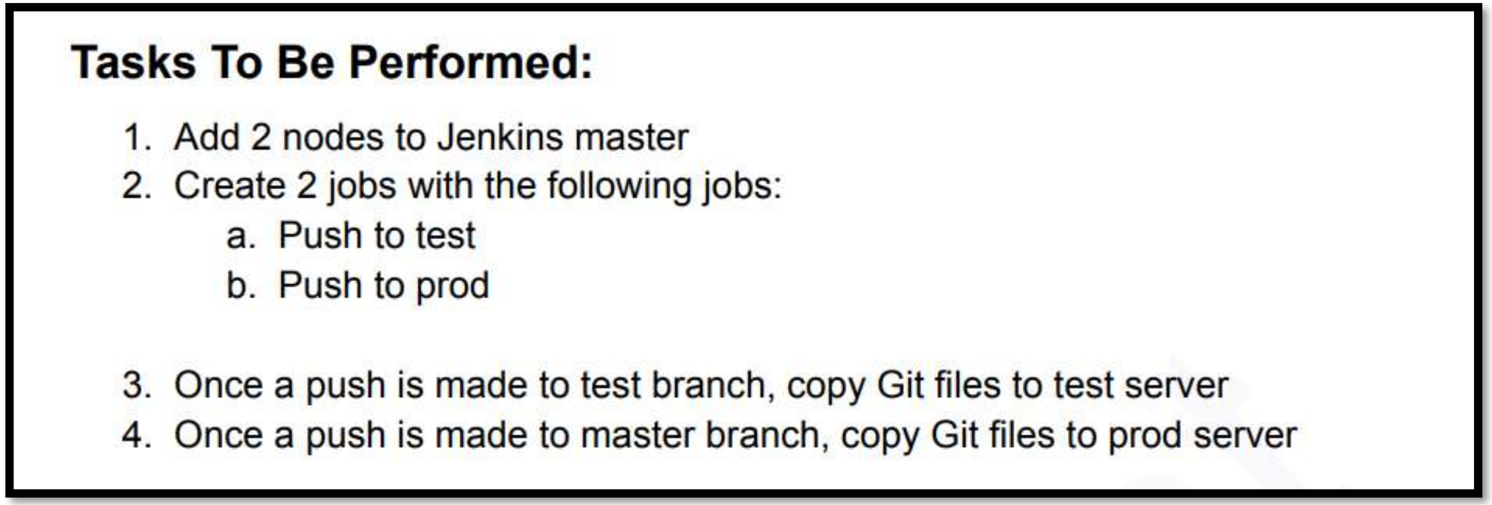
ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-02bcee21b2de55...
aws
Search
[Alt+S]
Asia Pacific (Mumbai) ▼
prakash24 ▼
EC2
EC2 Image Builder
S3
IAM
VPC
CloudFormation
Lambda
Cognito
API Gateway
CloudWatch

```
ubuntu@ip-172-31-1-250:~$ ls
jenkins
ubuntu@ip-172-31-1-250:~$ cd jenkins
ubuntu@ip-172-31-1-250:~/jenkins$ ls
remoting  remoting.jar  workspace
ubuntu@ip-172-31-1-250:~/jenkins$ cd workspace
ubuntu@ip-172-31-1-250:~/jenkins/workspace$ ls
job-assigment-1
ubuntu@ip-172-31-1-250:~/jenkins/workspace$ cd job-assigment-1
ubuntu@ip-172-31-1-250:~/jenkins/workspace/job-assigment-1$ ls
developfile  masterfile
ubuntu@ip-172-31-1-250:~/jenkins/workspace/job-assigment-1$ ls
developfile  masterfile  sample.txt
ubuntu@ip-172-31-1-250:~/jenkins/workspace/job-assigment-1$ 
```

i-02bcee21b2de5562a (jenkins-slave1 (pord))

PublicIPs: 43.204.238.232   PrivateIPs: 172.31.1.250

Module 6: Jenkins Assignment - 2

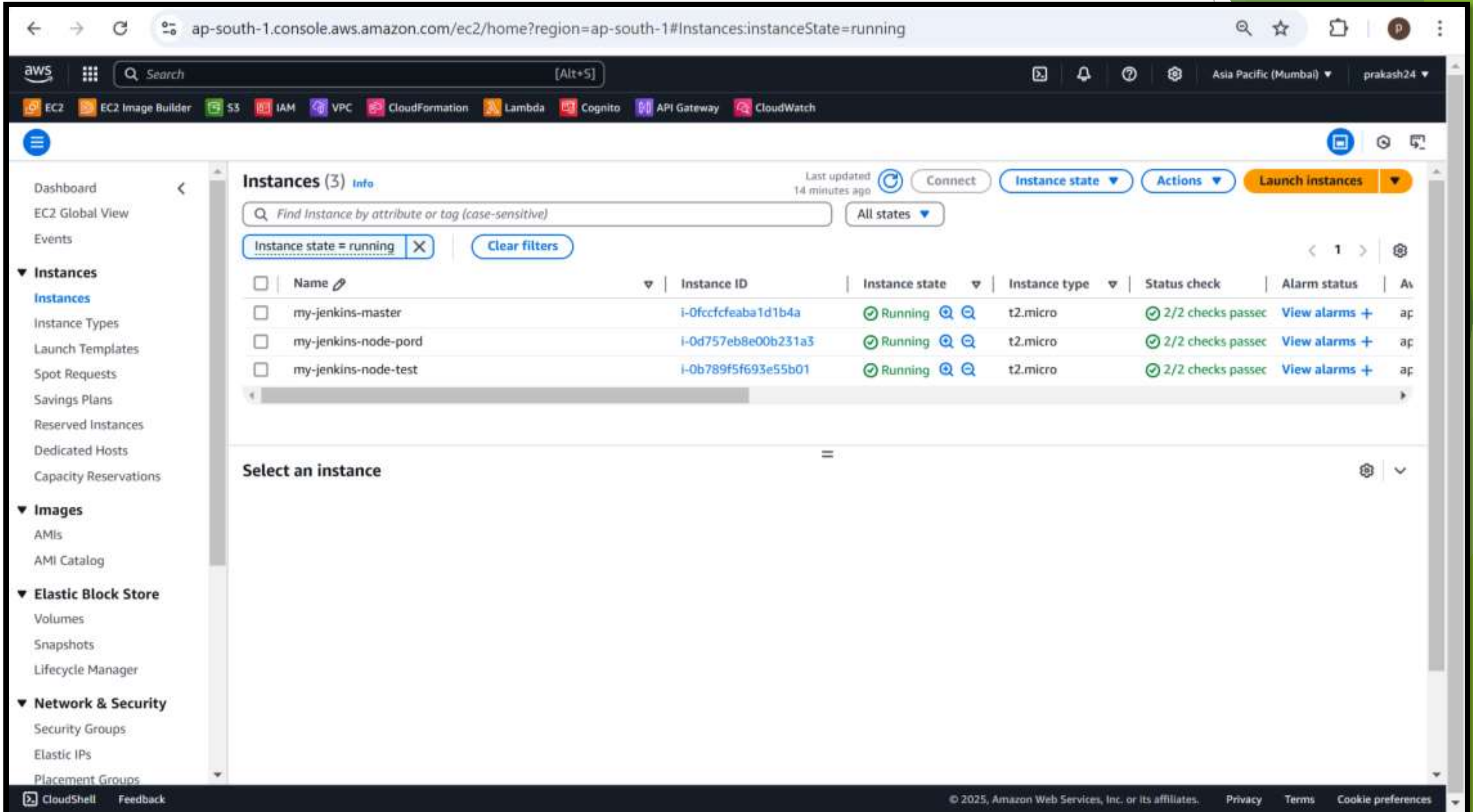


Tasks To Be Performed:

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

3 Ec2 Instance one master & 2 slave nodes



ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:instanceState=running

Instances (3) Info

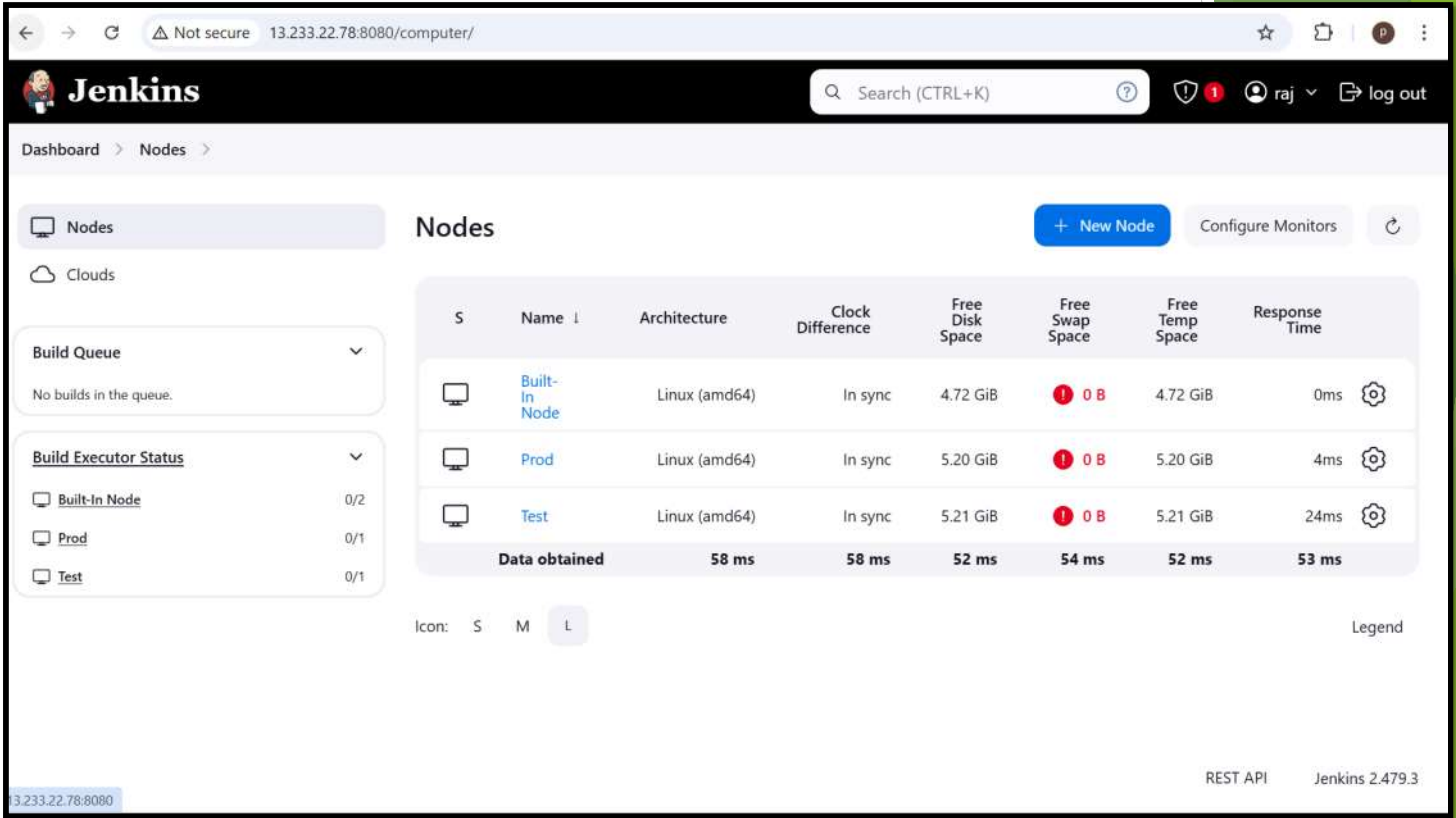
Last updated 14 minutes ago

Instance state = running

☐	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Av
☐	my-jenkins-master	i-0fccfcfeaba1d1b4a	✓ Running	t2.micro	✓ 2/2 checks passec	View alarms +	ap
☐	my-jenkins-node-pord	i-0d757eb8e00b231a3	✓ Running	t2.micro	✓ 2/2 checks passec	View alarms +	ap
☐	my-jenkins-node-test	i-0b789f5f693e55b01	✓ Running	t2.micro	✓ 2/2 checks passec	View alarms +	ap

Select an instance

Configured two worker node Prod & Test



Nodes

Build Queue

No builds in the queue.

Build Executor Status

Built-In Node	0/2
Prod	0/1
Test	0/1

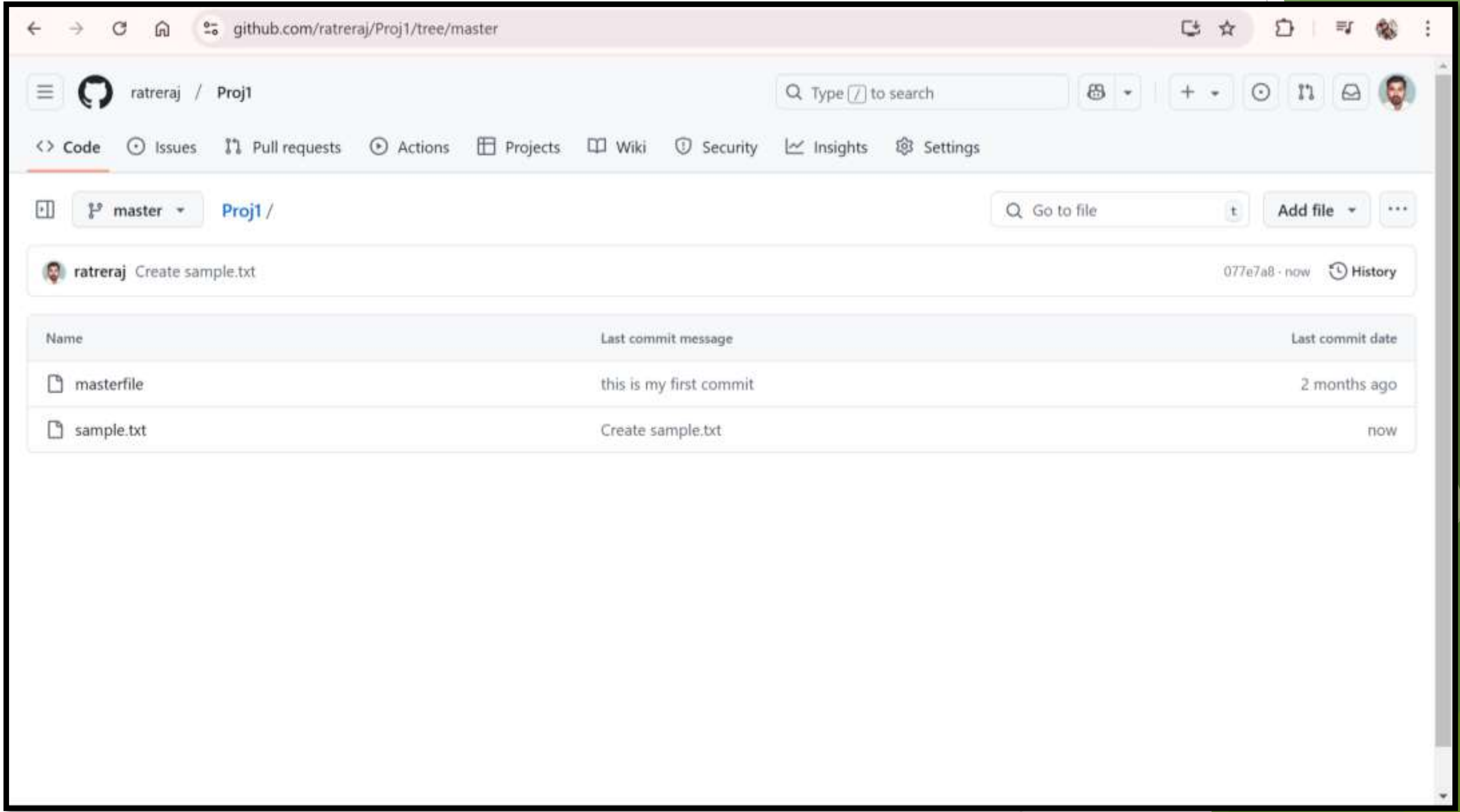
S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	4.72 GiB	❗ 0 B	4.72 GiB	0ms
	Prod	Linux (amd64)	In sync	5.20 GiB	❗ 0 B	5.20 GiB	4ms
	Test	Linux (amd64)	In sync	5.21 GiB	❗ 0 B	5.21 GiB	24ms
	Data obtained	**58 ms**	**58 ms**	**52 ms**	**54 ms**	**52 ms**	**53 ms**

Icon: S M L

Legend

REST API Jenkins 2.479.3

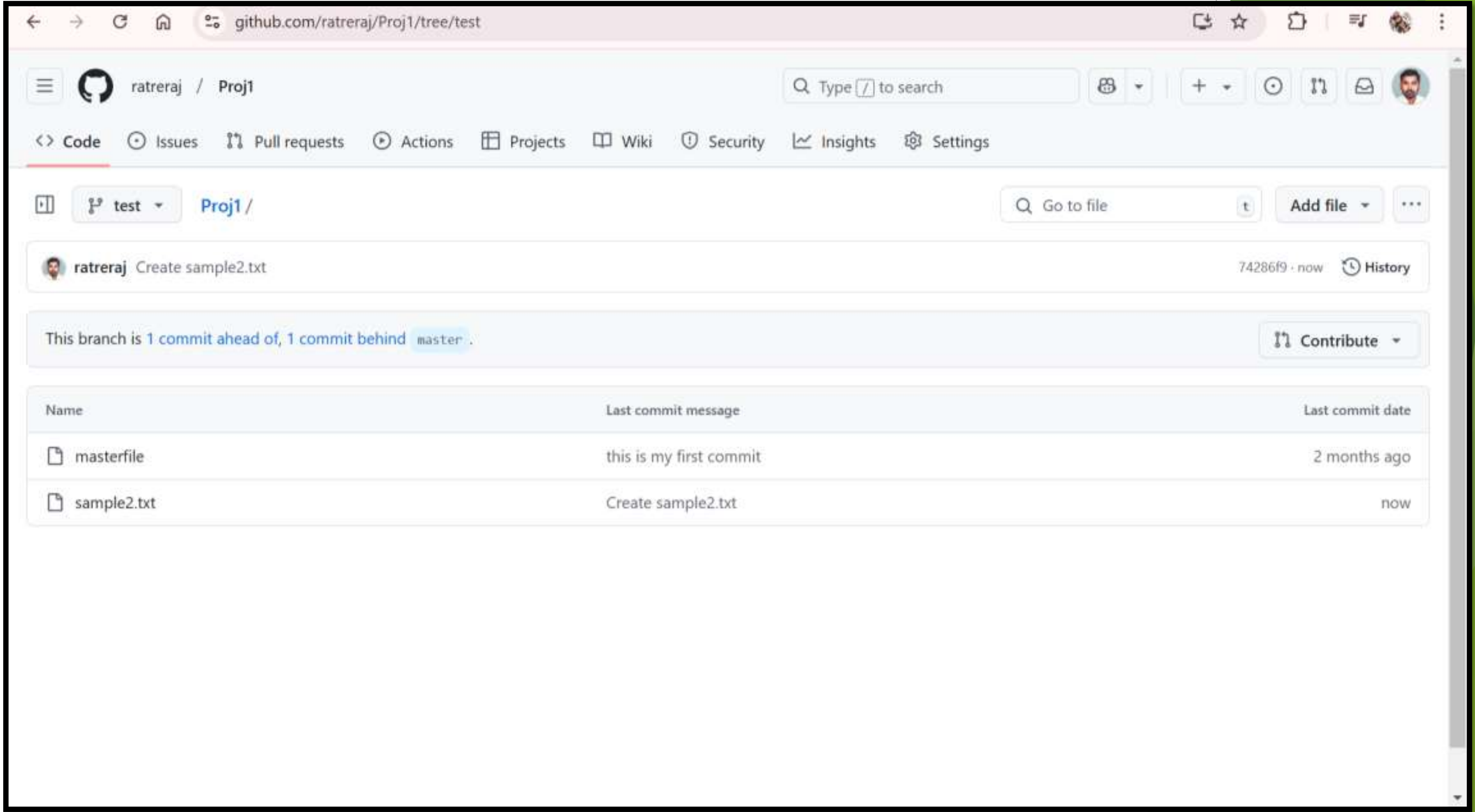
Master branch for Prod Node & Prod Pipeline



ratreraj Create sample.txt 077e7a8 · now History

Name	Last commit message	Last commit date
masterfile	this is my first commit	2 months ago
sample.txt	Create sample.txt	now

Test branch for Test Node & Test Pipeline

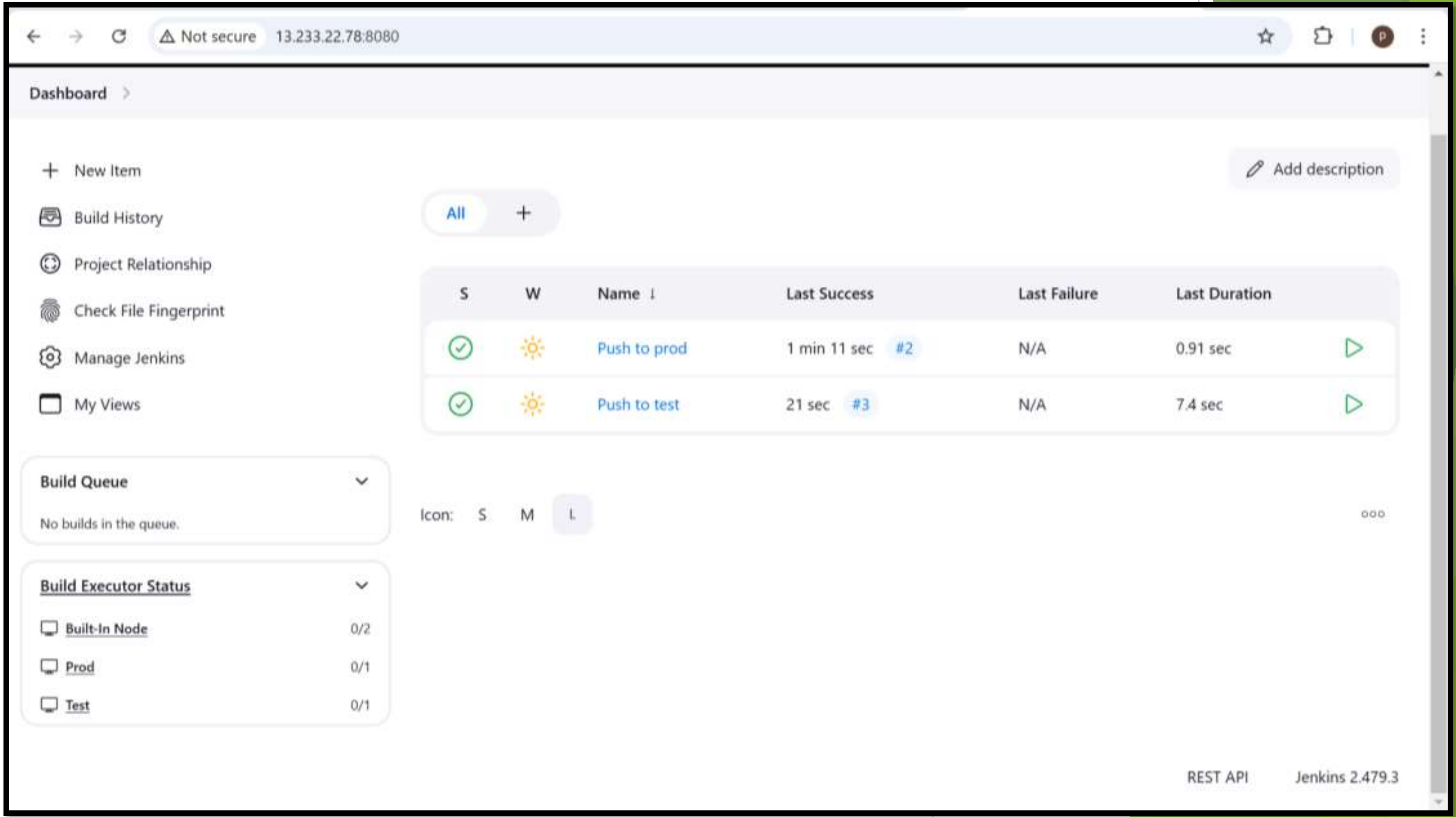


ratreraj Create sample2.txt 74286f9 · now

This branch is 1 commit ahead of, 1 commit behind `master` .

Name	Last commit message	Last commit date
masterfile	this is my first commit	2 months ago
sample2.txt	Create sample2.txt	now

Configured two pipeline Push to prod & Push to test



S	W	Name ↓	Last Success	Last Failure	Last Duration
✓	☼	Push to prod	1 min 11 sec #2	N/A	0.91 sec
✓	☼	Push to test	21 sec #3	N/A	7.4 sec

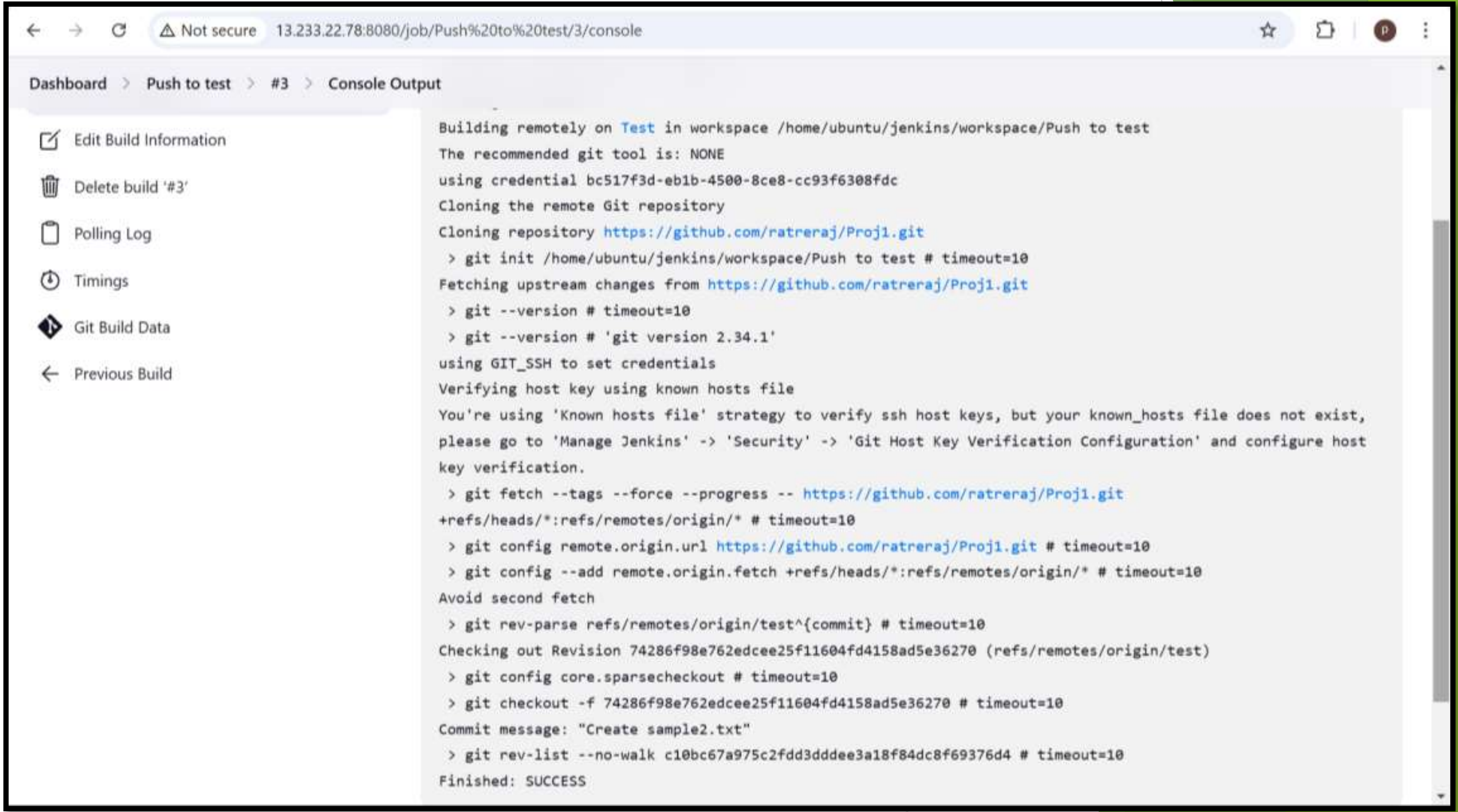
Build Queue

No builds in the queue.

Build Executor Status

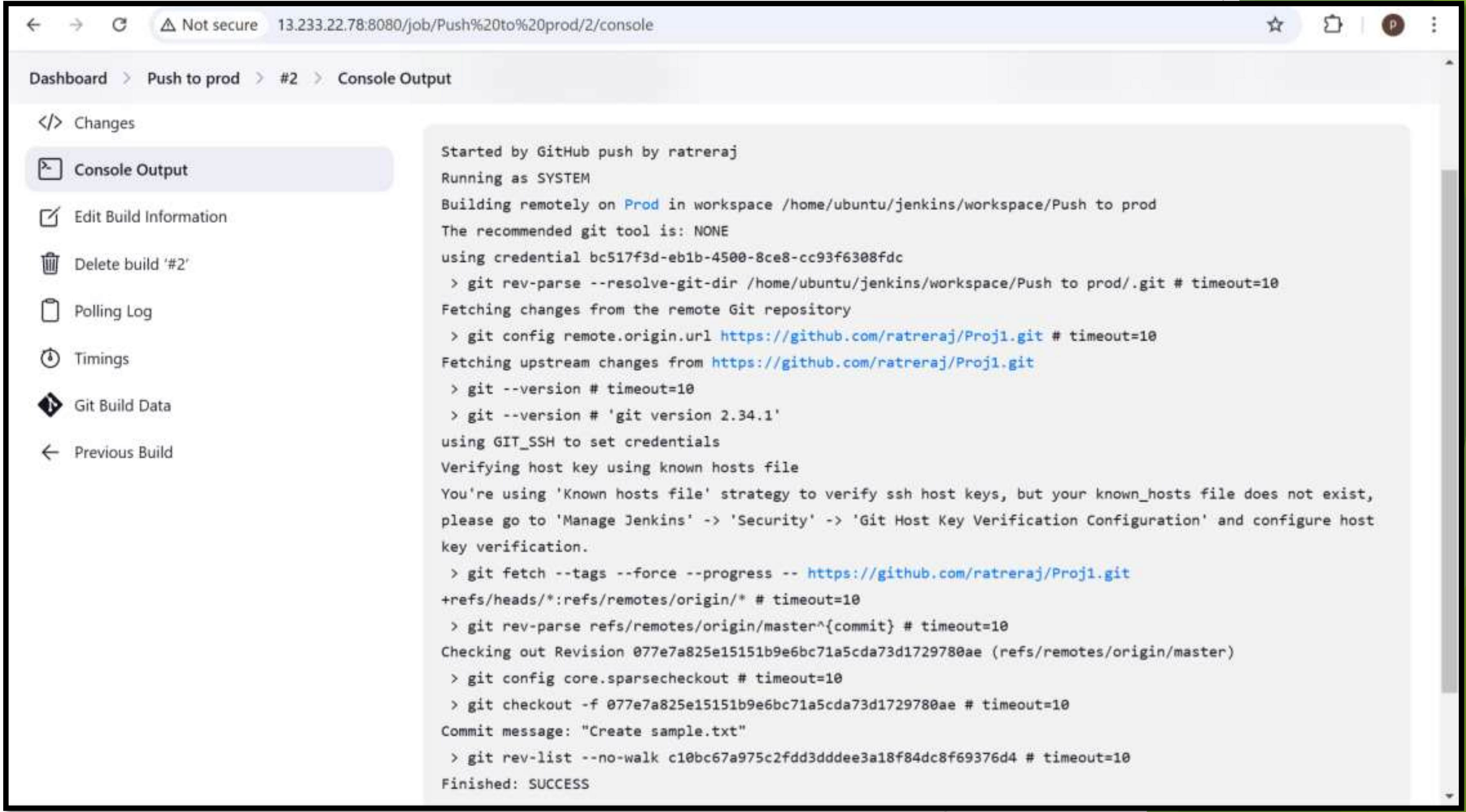
Built-In Node	0/2
Prod	0/1
Test	0/1

Push to test pipeline successfully run



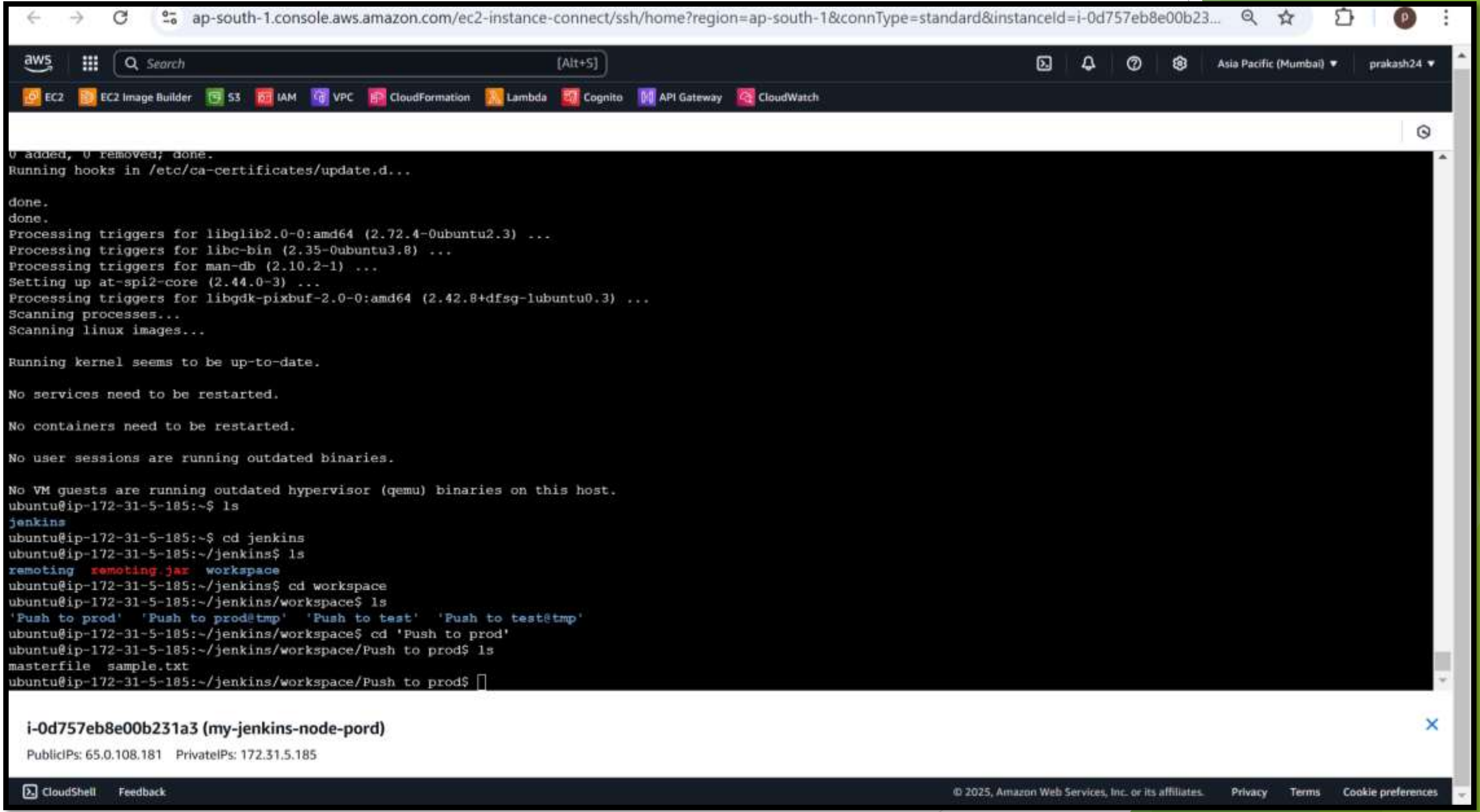
```
Building remotely on Test in workspace /home/ubuntu/jenkins/workspace/Push to test
The recommended git tool is: NONE
using credential bc517f3d-eb1b-4500-8ce8-cc93f6308fdc
Cloning the remote Git repository
Cloning repository https://github.com/ratreraj/Proj1.git
 > git init /home/ubuntu/jenkins/workspace/Push to test # timeout=10
Fetching upstream changes from https://github.com/ratreraj/Proj1.git
 > git --version # timeout=10
 > git --version # 'git version 2.34.1'
using GIT_SSH to set credentials
Verifying host key using known hosts file
You're using 'Known hosts file' strategy to verify ssh host keys, but your known_hosts file does not exist,
please go to 'Manage Jenkins' -> 'Security' -> 'Git Host Key Verification Configuration' and configure host
key verification.
 > git fetch --tags --force --progress -- https://github.com/ratreraj/Proj1.git
+refs/heads/*:refs/remotes/origin/* # timeout=10
 > git config remote.origin.url https://github.com/ratreraj/Proj1.git # timeout=10
 > git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
 > git rev-parse refs/remotes/origin/test^{commit} # timeout=10
Checking out Revision 74286f98e762edcee25f11604fd4158ad5e36270 (refs/remotes/origin/test)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 74286f98e762edcee25f11604fd4158ad5e36270 # timeout=10
Commit message: "Create sample2.txt"
 > git rev-list --no-walk c10bc67a975c2fdd3dddee3a18f84dc8f69376d4 # timeout=10
Finished: SUCCESS
```

Push to prod pipeline successfully run



```
Started by GitHub push by ratreraj
Running as SYSTEM
Building remotely on Prod in workspace /home/ubuntu/jenkins/workspace/Push to prod
The recommended git tool is: NONE
using credential bc517f3d-eb1b-4500-8ce8-cc93f6308fdc
 > git rev-parse --resolve-git-dir /home/ubuntu/jenkins/workspace/Push to prod/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/ratreraj/Proj1.git # timeout=10
Fetching upstream changes from https://github.com/ratreraj/Proj1.git
 > git --version # timeout=10
 > git --version # 'git version 2.34.1'
using GIT_SSH to set credentials
Verifying host key using known hosts file
You're using 'Known hosts file' strategy to verify ssh host keys, but your known_hosts file does not exist,
please go to 'Manage Jenkins' -> 'Security' -> 'Git Host Key Verification Configuration' and configure host
key verification.
 > git fetch --tags --force --progress -- https://github.com/ratreraj/Proj1.git
+refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision 077e7a825e15151b9e6bc71a5cda73d1729780ae (refs/remotes/origin/master)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 077e7a825e15151b9e6bc71a5cda73d1729780ae # timeout=10
Commit message: "Create sample.txt"
 > git rev-list --no-walk c10bc67a975c2fdd3dddee3a18f84dc8f69376d4 # timeout=10
Finished: SUCCESS
```

We can see the files pull from master branch in workspace folder



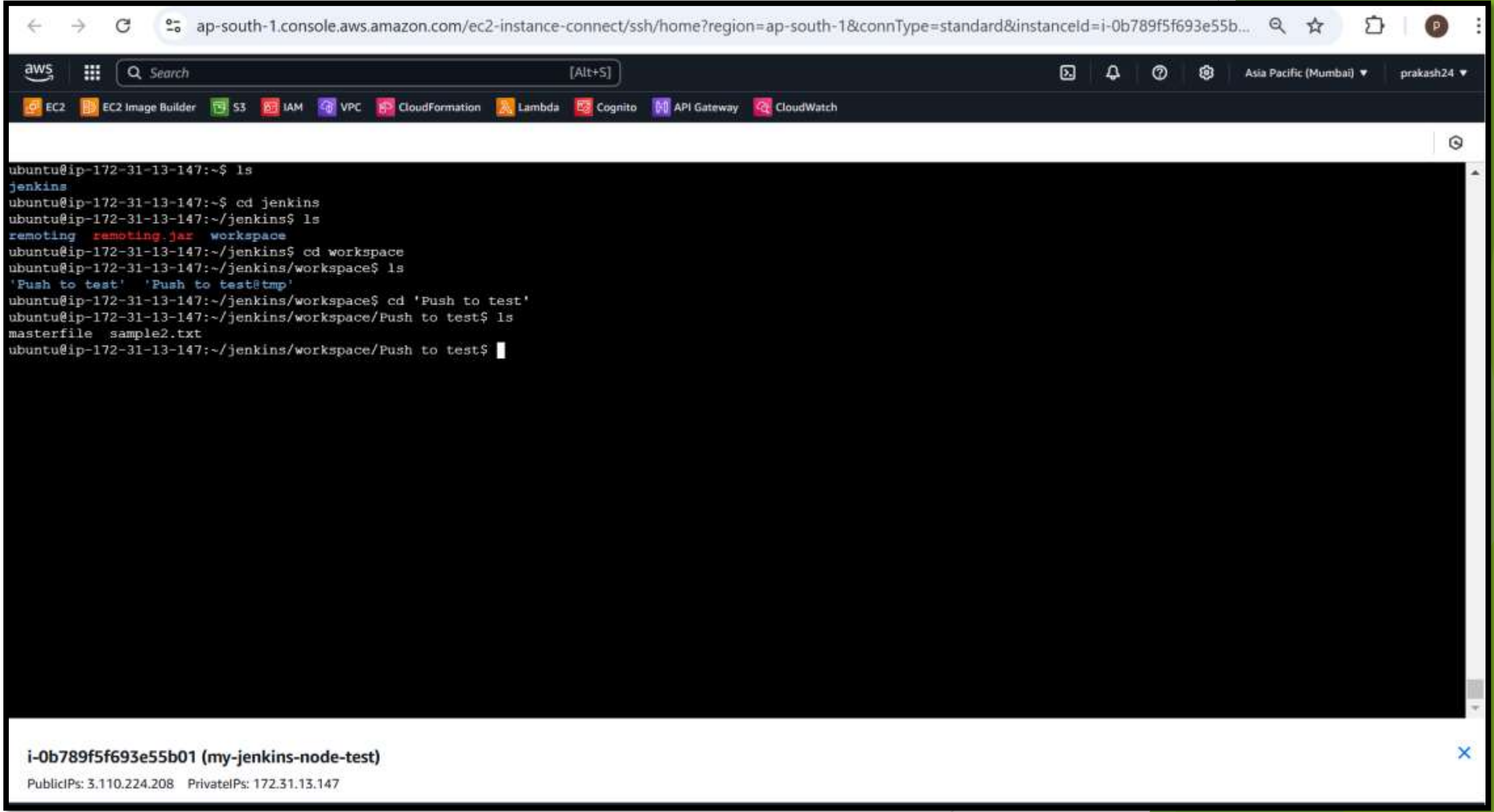
ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-0d757eb8e00b23...

```
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d...

done.
done.
Processing triggers for libglib2.0-0:amd64 (2.72.4-0ubuntu2.3) ...
Processing triggers for libc-bin (2.35-0ubuntu3.8) ...
Processing triggers for man-db (2.10.2-1) ...
Setting up at-spi2-core (2.44.0-3) ...
Processing triggers for libgdk-pixbuf-2.0-0:amd64 (2.42.8+dfsg-1ubuntu0.3) ...
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-172-31-5-185:~$ ls
jenkins
ubuntu@ip-172-31-5-185:~$ cd jenkins
ubuntu@ip-172-31-5-185:~/jenkins$ ls
remoting  remoting.jar  workspace
ubuntu@ip-172-31-5-185:~/jenkins$ cd workspace
ubuntu@ip-172-31-5-185:~/jenkins/workspace$ ls
'Push to prod'  'Push to prod@tmp'  'Push to test'  'Push to test@tmp'
ubuntu@ip-172-31-5-185:~/jenkins/workspace$ cd 'Push to prod'
ubuntu@ip-172-31-5-185:~/jenkins/workspace/Push to prod$ ls
masterfile  sample.txt
ubuntu@ip-172-31-5-185:~/jenkins/workspace/Push to prod$
```

i-0d757eb8e00b231a3 (my-jenkins-node-pord)

PublicIPs: 65.0.108.181 PrivateIPs: 172.31.5.185

We can see the files pull from test branch in workspace folder



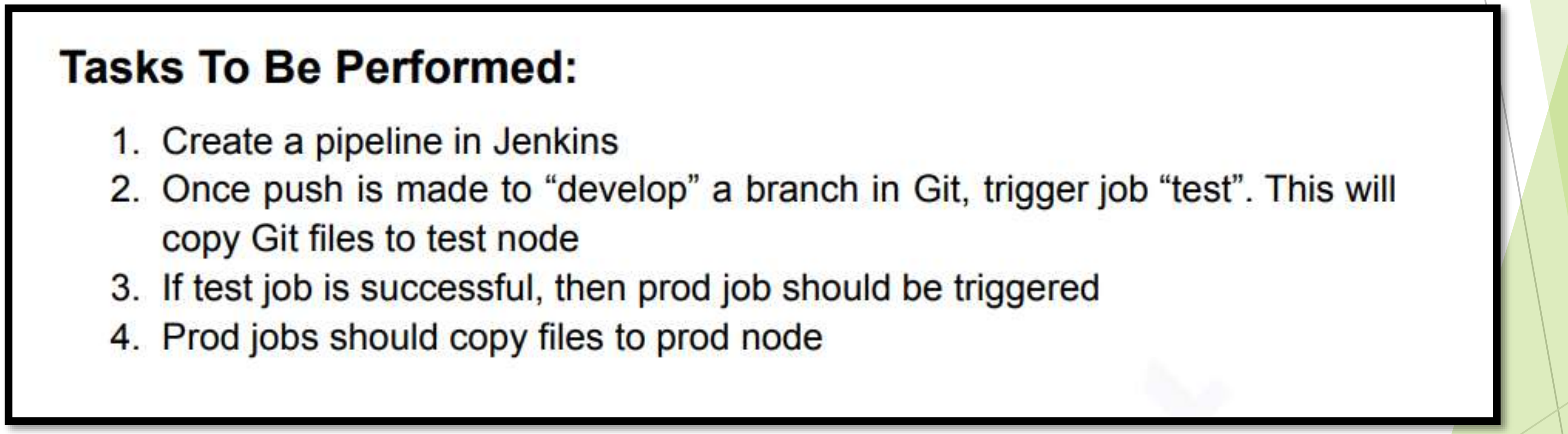
ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-0b789f5f693e55b...
aws
Search
[Alt+S]
Asia Pacific (Mumbai) ▾
prakash24 ▾
EC2
EC2 Image Builder
S3
IAM
VPC
CloudFormation
Lambda
Cognito
API Gateway
CloudWatch

```
ubuntu@ip-172-31-13-147:~$ ls
jenkins
ubuntu@ip-172-31-13-147:~$ cd jenkins
ubuntu@ip-172-31-13-147:~/jenkins$ ls
remoting  remoting.jar  workspace
ubuntu@ip-172-31-13-147:~/jenkins$ cd workspace
ubuntu@ip-172-31-13-147:~/jenkins/workspace$ ls
'Push to test'  'Push to test@tmp'
ubuntu@ip-172-31-13-147:~/jenkins/workspace$ cd 'Push to test'
ubuntu@ip-172-31-13-147:~/jenkins/workspace/Push to test$ ls
masterfile  sample2.txt
ubuntu@ip-172-31-13-147:~/jenkins/workspace/Push to test$ 
```

i-0b789f5f693e55b01 (my-jenkins-node-test)

PublicIPs: 3.110.224.208 PrivateIPs: 172.31.13.147

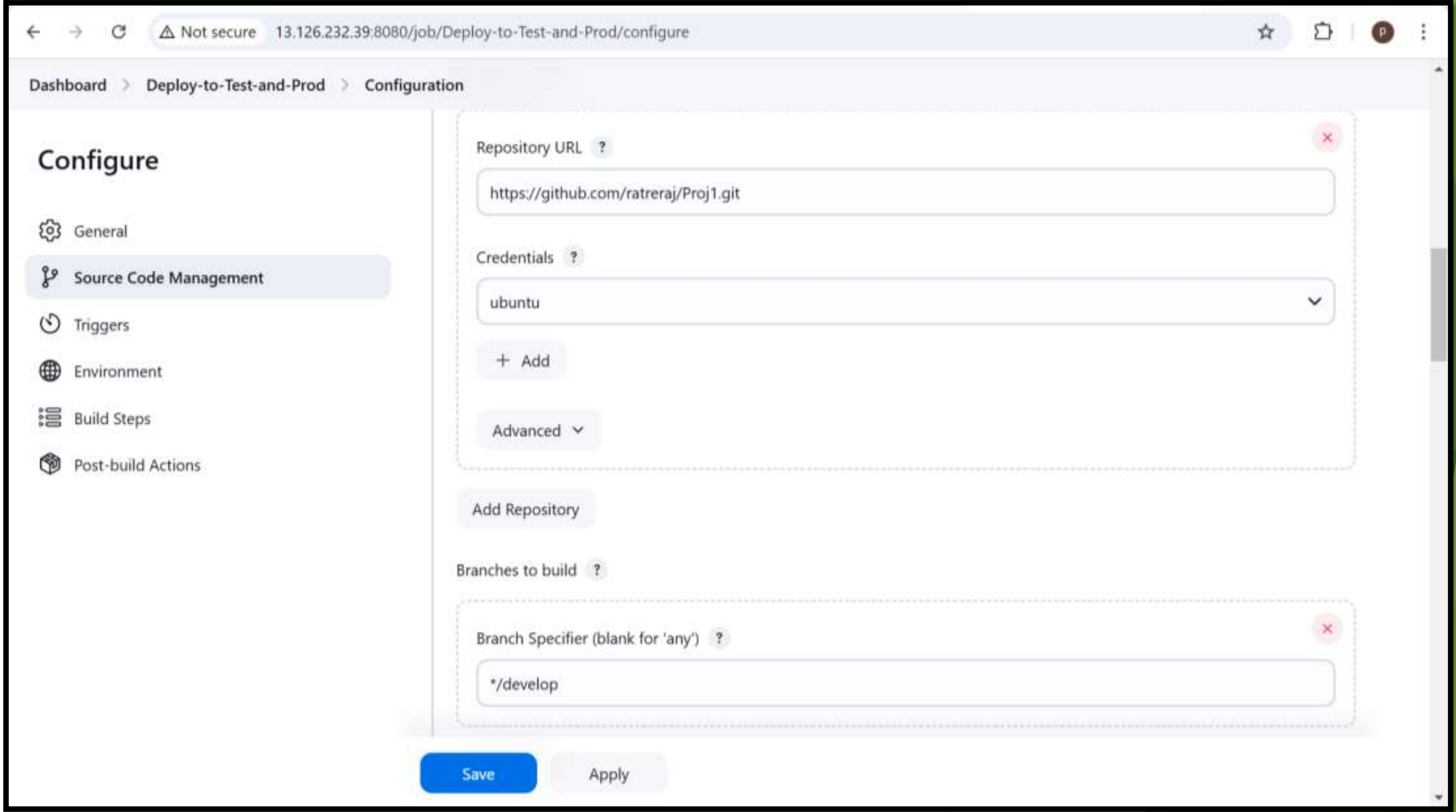
Module 6: Jenkins Assignment - 3



Tasks To Be Performed:

1. Create a pipeline in Jenkins
2. Once push is made to “develop” a branch in Git, trigger job “test”. This will copy Git files to test node
3. If test job is successful, then prod job should be triggered
4. Prod jobs should copy files to prod node

Configured the pipeline “Deploy-to-test-and-prod” when code push to develop branch



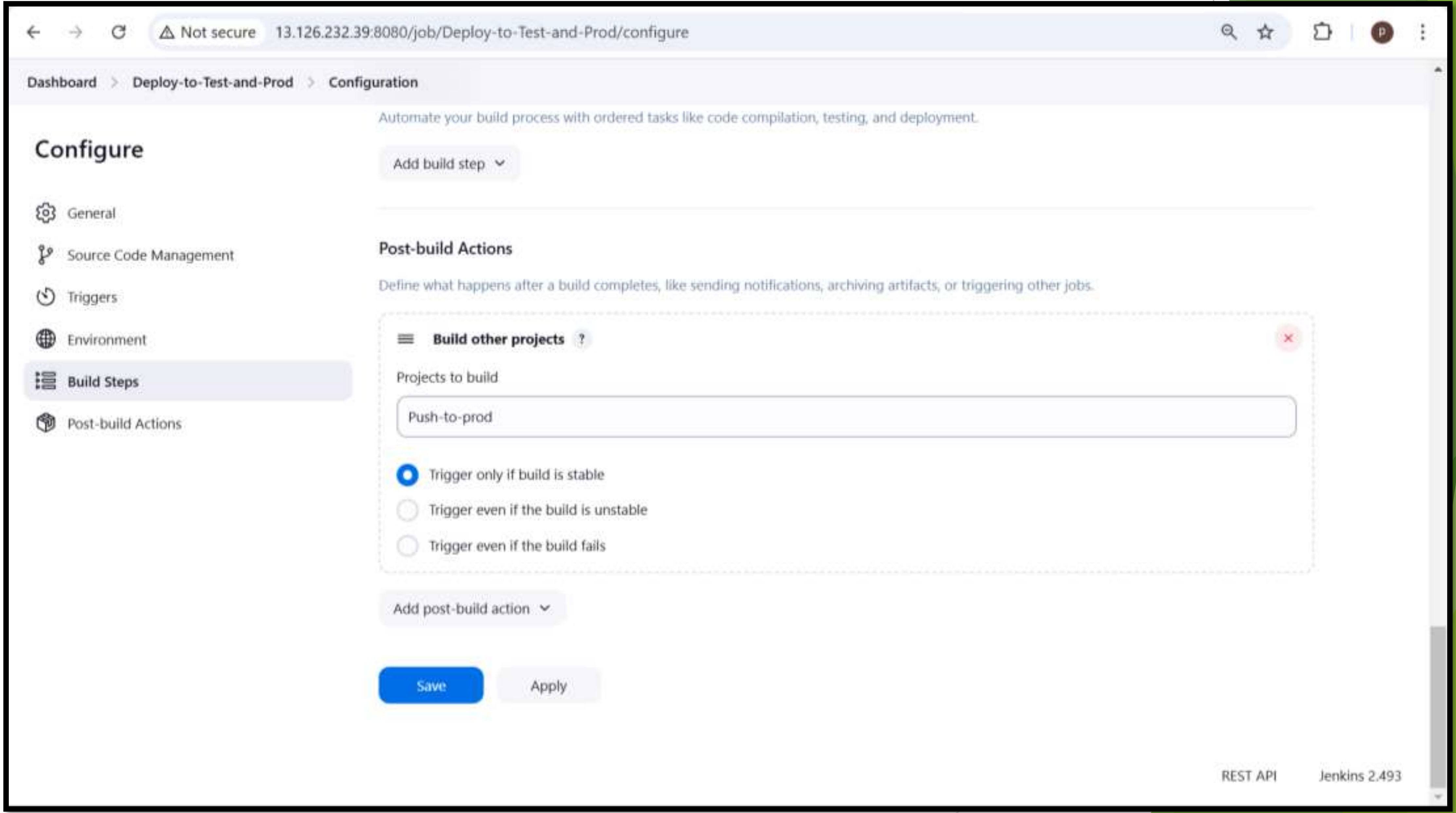
Repository URL: https://github.com/ratreraj/Proj1.git

Credentials: ubuntu

Branches to build

Branch Specifier (blank for 'any'): */develop

Configured the pipeline “Deploy-to-test-and-prod” to tigger a Push-to-prod pipeline after stable build



Not secure 13.126.232.39:8080/job/Deploy-to-Test-and-Prod/configure

Dashboard > Deploy-to-Test-and-Prod > Configuration

Configure

Automate your build process with ordered tasks like code compilation, testing, and deployment.

Post-build Actions

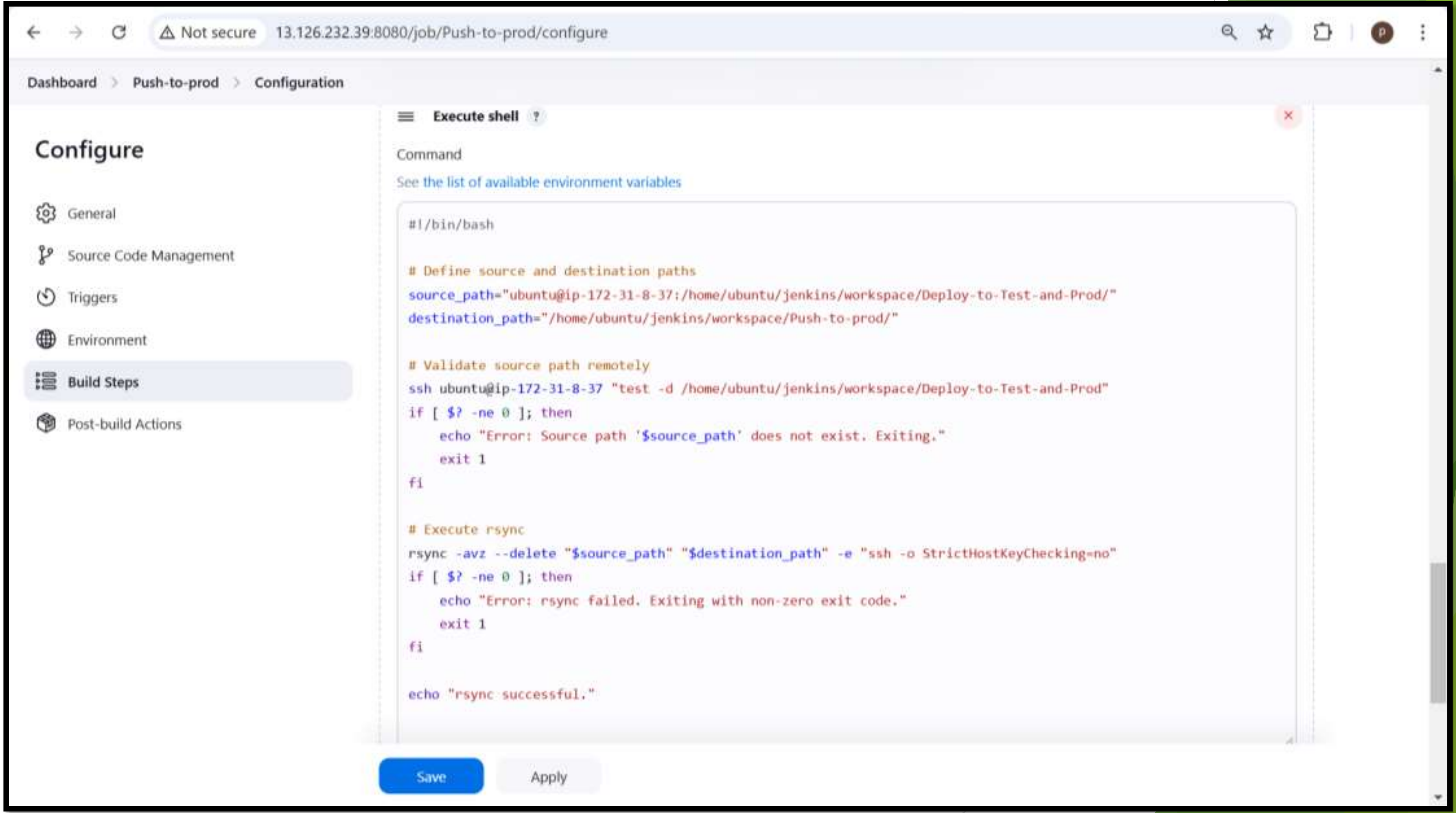
Define what happens after a build completes, like sending notifications, archiving artifacts, or triggering other jobs.

Build other projects ?

Projects to build: Push-to-prod

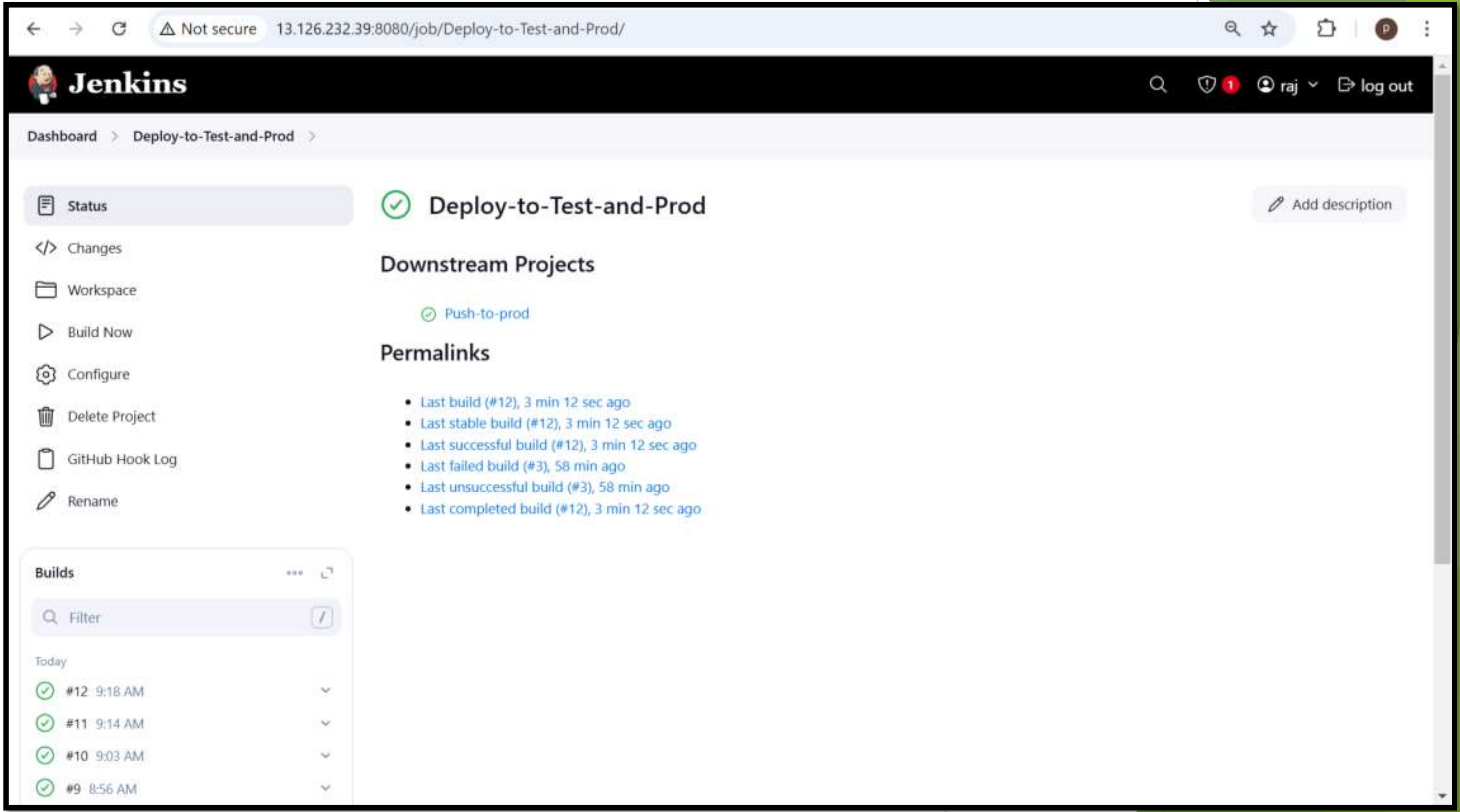
● Trigger only if build is stable
○ Trigger even if the build is unstable
○ Trigger even if the build fails

Configured shell script to copy all file from Test Node to Prod Node



```
#!/bin/bash

# Define source and destination paths
source_path="ubuntu@ip-172-31-8-37:/home/ubuntu/jenkins/workspace/Deploy-to-Test-and-Prod/"
destination_path="/home/ubuntu/jenkins/workspace/Push-to-prod/"

# Validate source path remotely
ssh ubuntu@ip-172-31-8-37 "test -d /home/ubuntu/jenkins/workspace/Deploy-to-Test-and-Prod"
if [ $? -ne 0 ]; then
    echo "Error: Source path '$source_path' does not exist. Exiting."
    exit 1
fi

# Execute rsync
rsync -avz --delete "$source_path" "$destination_path" -e "ssh -o StrictHostKeyChecking=no"
if [ $? -ne 0 ]; then
    echo "Error: rsync failed. Exiting with non-zero exit code."
    exit 1
fi

echo "rsync successful."
```

“Deploy-to-test-and-prod” run successfully & Downstream project Push-to prod



13.126.232.39:8080/job/Deploy-to-Test-and-Prod/

Dashboard > Deploy-to-Test-and-Prod >

Deploy-to-Test-and-Prod

Downstream Projects

- Push-to-prod

Permalinks

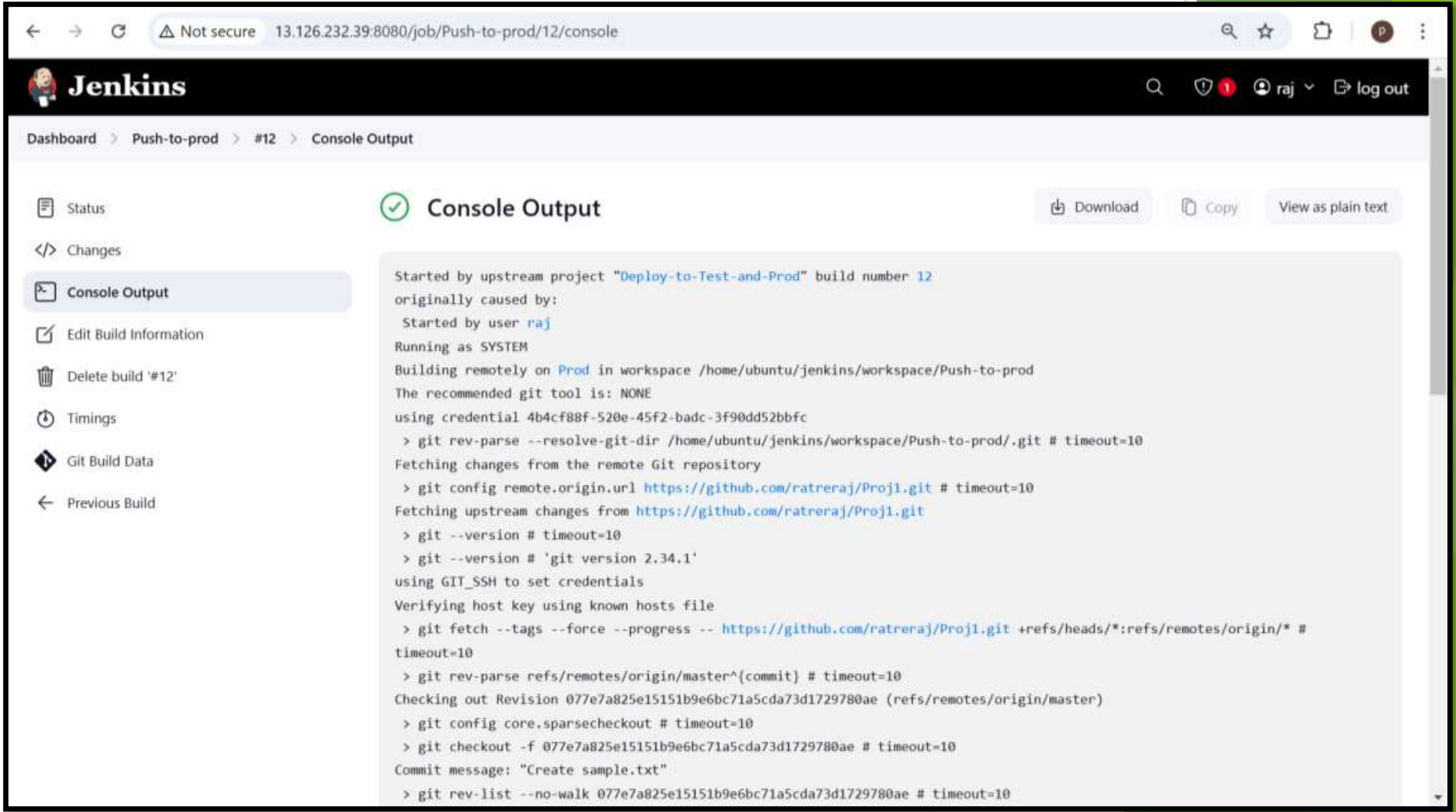
- Last build (#12), 3 min 12 sec ago
- Last stable build (#12), 3 min 12 sec ago
- Last successful build (#12), 3 min 12 sec ago
- Last failed build (#3), 58 min ago
- Last unsuccessful build (#3), 58 min ago
- Last completed build (#12), 3 min 12 sec ago

Builds

Today

- #12 9:18 AM
- #11 9:14 AM
- #10 9:03 AM
- #9 8:56 AM

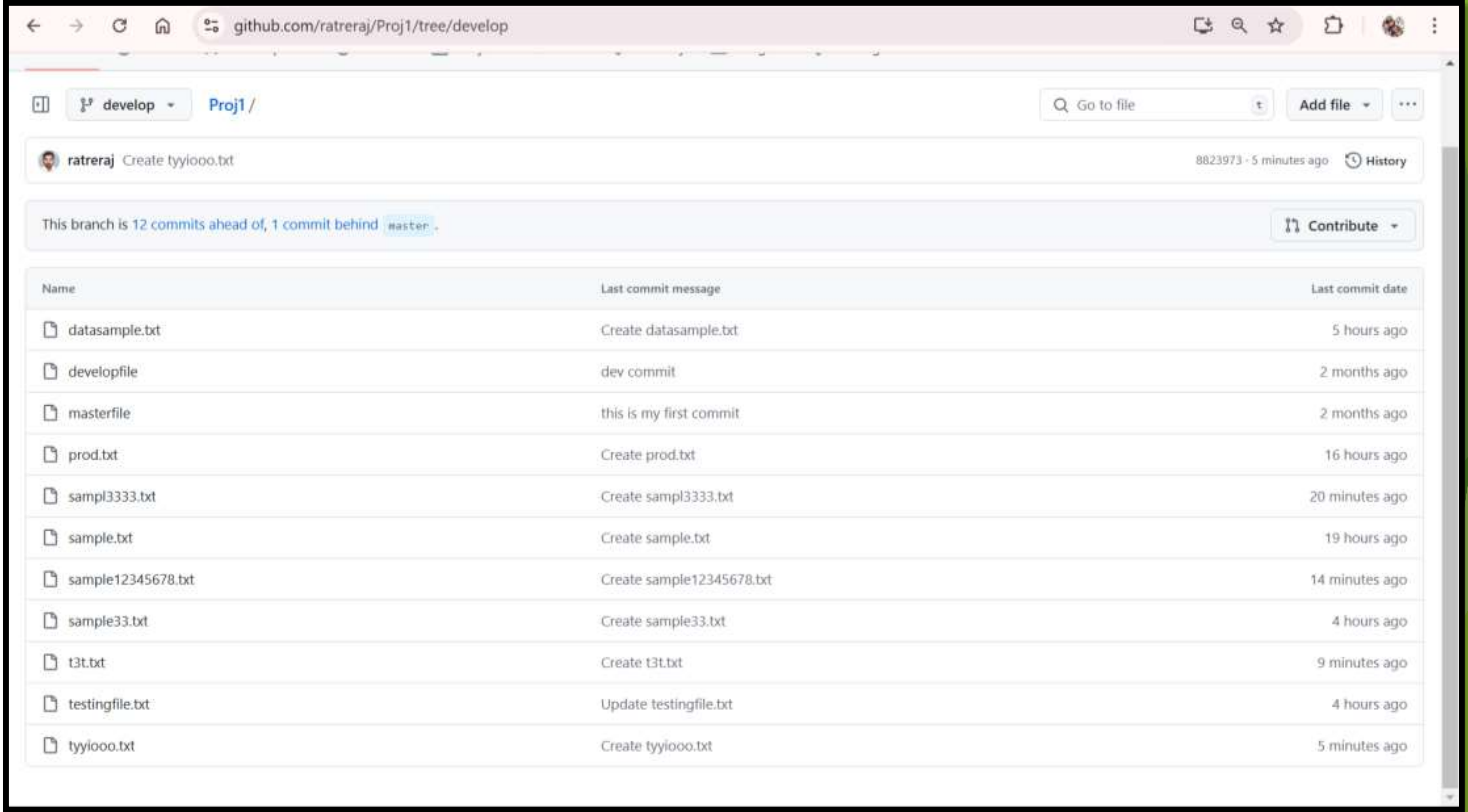
“Push-to prod” run successfully



Console Output

```
Started by upstream project "Deploy-to-Test-and-Prod" build number 12
originally caused by:
 Started by user raj
Running as SYSTEM
Building remotely on Prod in workspace /home/ubuntu/jenkins/workspace/Push-to-prod
The recommended git tool is: NONE
using credential 4b4cf88f-520e-45f2-badc-3f90dd52bbfc
 > git rev-parse --resolve-git-dir /home/ubuntu/jenkins/workspace/Push-to-prod/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/ratreraj/Proj1.git # timeout=10
Fetching upstream changes from https://github.com/ratreraj/Proj1.git
 > git --version # timeout=10
 > git --version # 'git version 2.34.1'
using GIT_SSH to set credentials
Verifying host key using known hosts file
 > git fetch --tags --force --progress -- https://github.com/ratreraj/Proj1.git +refs/heads/*:refs/remotes/origin/* #
timeout=10
 > git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision 077e7a825e15151b9e6bc71a5cda73d1729780ae (refs/remotes/origin/master)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 077e7a825e15151b9e6bc71a5cda73d1729780ae # timeout=10
Commit message: "Create sample.txt"
 > git rev-list --no-walk 077e7a825e15151b9e6bc71a5cda73d1729780ae # timeout=10
```

File present in develop branch



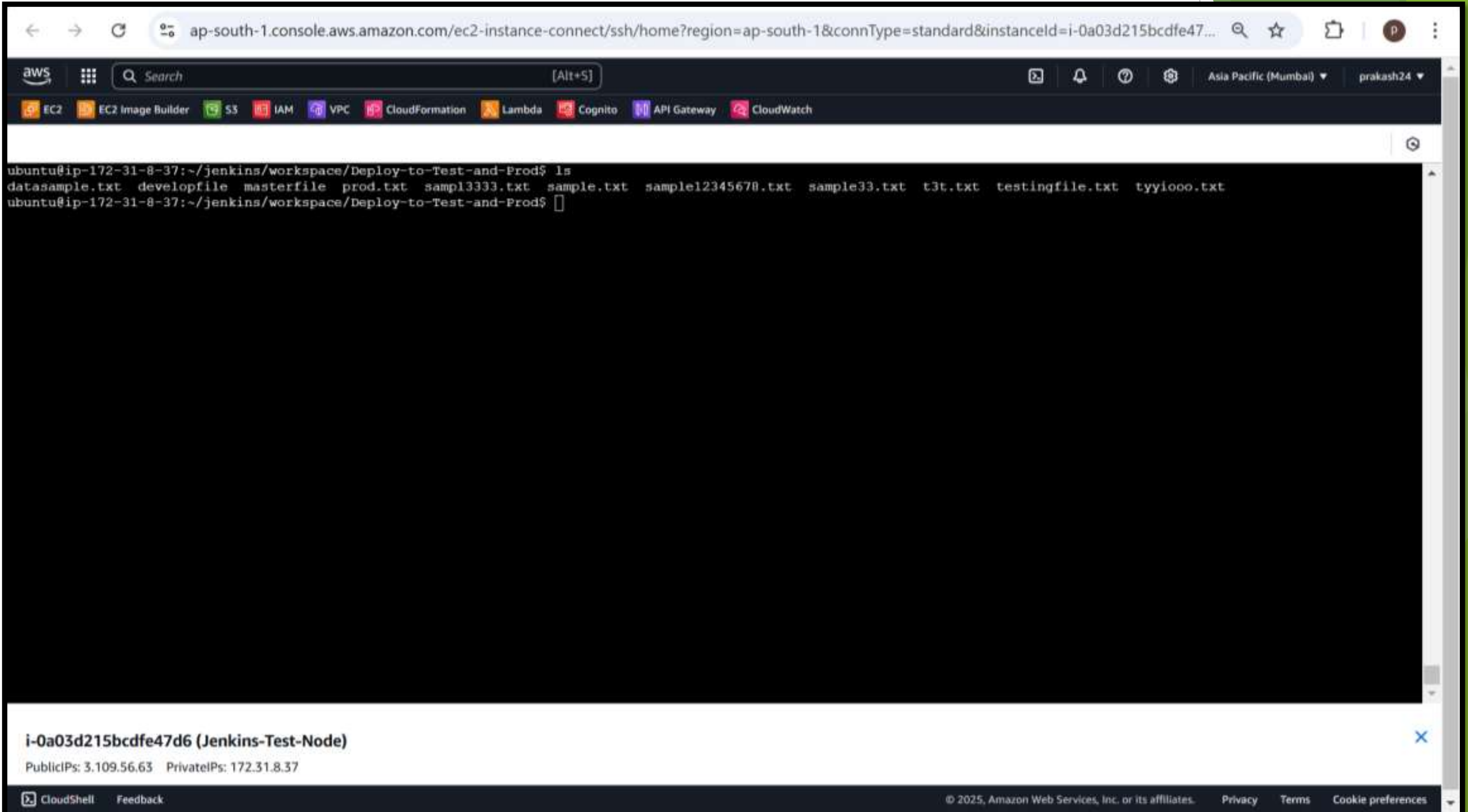
ratreraj Create tyyiooo.txt

8823973 · 5 minutes ago

This branch is 12 commits ahead of, 1 commit behind `master` .

Name	Last commit message	Last commit date
datasample.txt	Create datasample.txt	5 hours ago
developfile	dev commit	2 months ago
masterfile	this is my first commit	2 months ago
prod.txt	Create prod.txt	16 hours ago
sampl3333.txt	Create sampl3333.txt	20 minutes ago
sample.txt	Create sample.txt	19 hours ago
sample12345678.txt	Create sample12345678.txt	14 minutes ago
sample33.txt	Create sample33.txt	4 hours ago
t3t.txt	Create t3t.txt	9 minutes ago
testingfile.txt	Update testingfile.txt	4 hours ago
tyyiooo.txt	Create tyyiooo.txt	5 minutes ago

File present in develop branch is pulled in Test Node after “Deploy-to-test-and-prod”



ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-0a03d215bcdfe47...
aws
Search
[Alt+S]
Asia Pacific (Mumbai) ▼
prakash24 ▼
EC2
EC2 Image Builder
S3
IAM
VPC
CloudFormation
Lambda
Cognito
API Gateway
CloudWatch

```
ubuntu@ip-172-31-8-37:~/jenkins/workspace/Deploy-to-Test-and-Prod$ ls
datasample.txt  developfile  masterfile  prod.txt  sampl3333.txt  sample.txt  sample12345678.txt  sample33.txt  t3t.txt  testingfile.txt  tyyiooo.txt
ubuntu@ip-172-31-8-37:~/jenkins/workspace/Deploy-to-Test-and-Prod$ 
```

i-0a03d215bcdfe47d6 (Jenkins-Test-Node)

PublicIPs: 3.109.56.63   PrivateIPs: 172.31.8.37

CloudShell
Feedback
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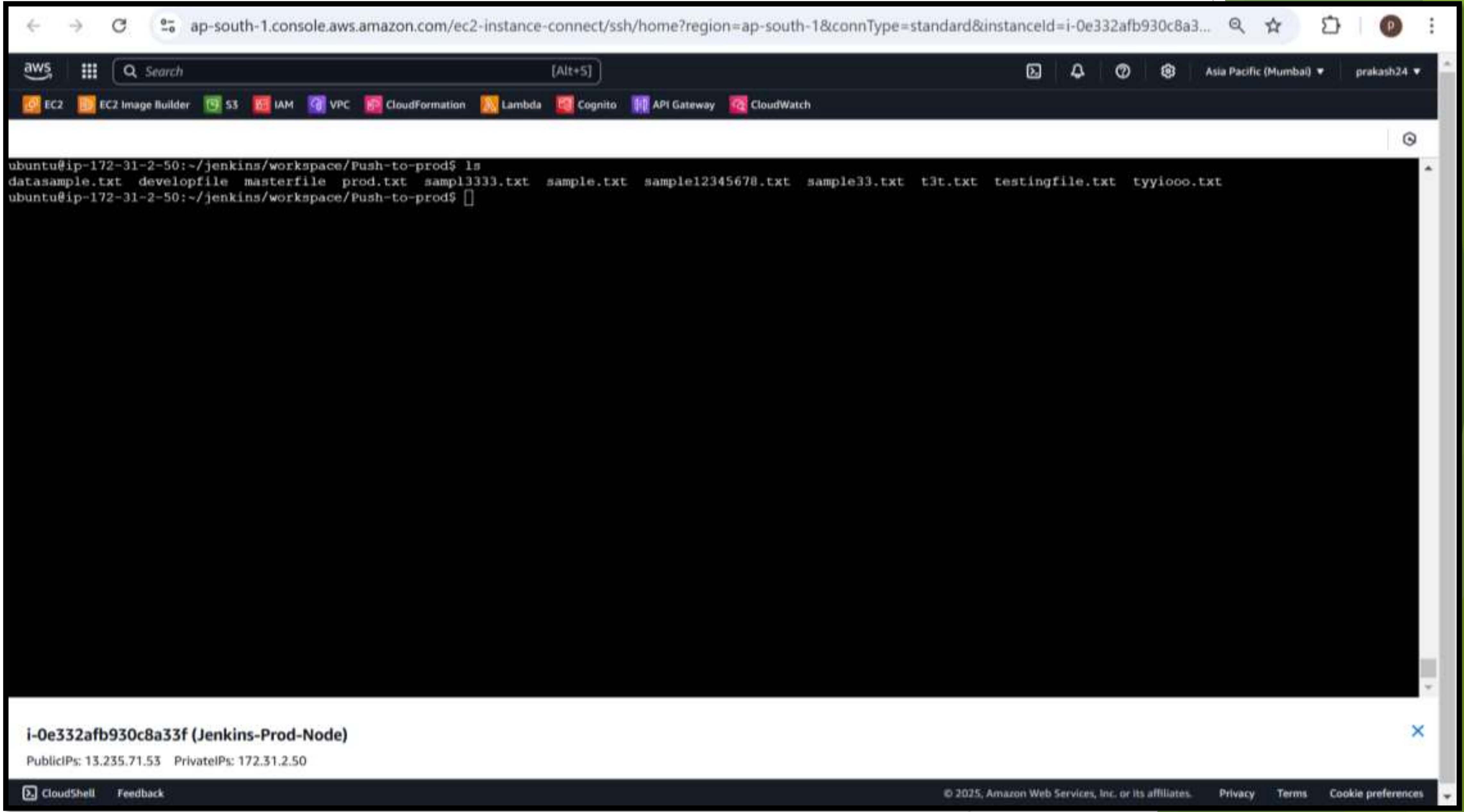
Cookie preferences

Same file copied Test Node after "Push-to-prod"



ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-0e332afb930c8a3...
aws
Search
[Alt+S]
Asia Pacific (Mumbai) ▾
prakash24 ▾
EC2
EC2 Image Builder
S3
IAM
VPC
CloudFormation
Lambda
Cognito
API Gateway
CloudWatch

```
ubuntu@ip-172-31-2-50:~/jenkins/workspace/Push-to-prod$ ls
datasample.txt  developfile  masterfile  prod.txt  sampl3333.txt  sample.txt  sample12345678.txt  sample33.txt  t3t.txt  testingfile.txt  tyyiooo.txt
ubuntu@ip-172-31-2-50:~/jenkins/workspace/Push-to-prod$ 
```

i-0e332afb930c8a33f (Jenkins-Prod-Node)

PublicIPs: 13.235.71.53 PrivateIPs: 172.31.2.50

CloudShell
Feedback
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