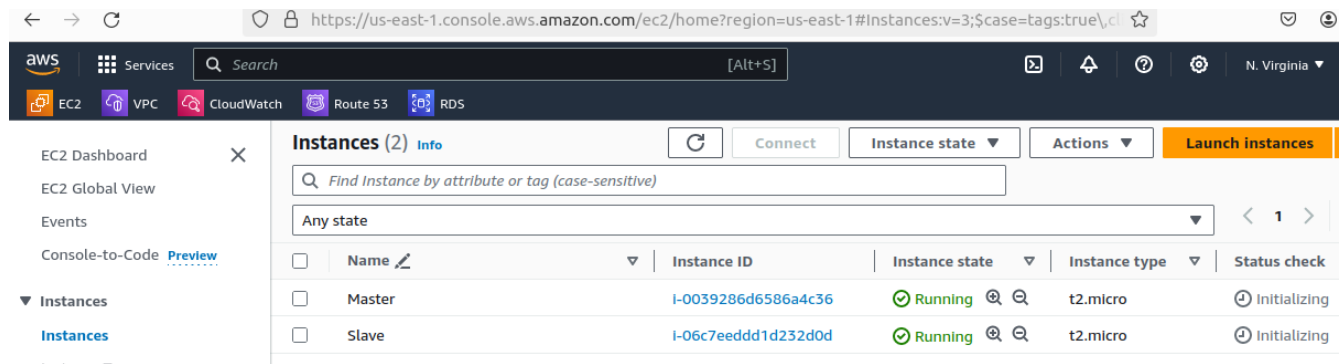


1. Trigger a pipeline using Git when push on develop branch
2. Pipeline should pull Git content to a folder

STEPS:

CREATE 2 UBUNTU SERVERS:

- 1: Master
- 2: Slave



- Install Java, Jenkins (Git by default is installed on Jenkins) on Master
 sudo nano install.sh

input:

```
sudo apt update
sudo apt install openjdk-11-jdk -y
sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
https://pkg.jenkins.io/debian/jenkins.io-2023.key
echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \
https://pkg.jenkins.io/debian binary/ | sudo tee \
/etc/apt/sources.list.d/jenkins.list > /dev/null
sudo apt update
sudo apt install jenkins -y
```



bash install.sh

```
ubuntu@ip-172-31-16-132:~$ jenkins --version
2.446
ubuntu@ip-172-31-16-132:~$
```

i-0039286d6586a4c36 (Master)

PublicIPs: 52.201.237.111 PrivateIPs: 172.31.16.132

- Install only Java on Slave

sudo apt update

sudo apt install openjdk-11-jdk -y

```
ubuntu@ip-172-31-21-190:~$ java --version
openjdk 11.0.21 2023-10-17
OpenJDK Runtime Environment (build 11.0.21+9-post-Ubuntu-0ubuntu122.04)
OpenJDK 64-Bit Server VM (build 11.0.21+9-post-Ubuntu-0ubuntu122.04, mixed mode, sharing)
ubuntu@ip-172-31-21-190:~$
```

i-06c7eeddd1d232d0d (Slave)

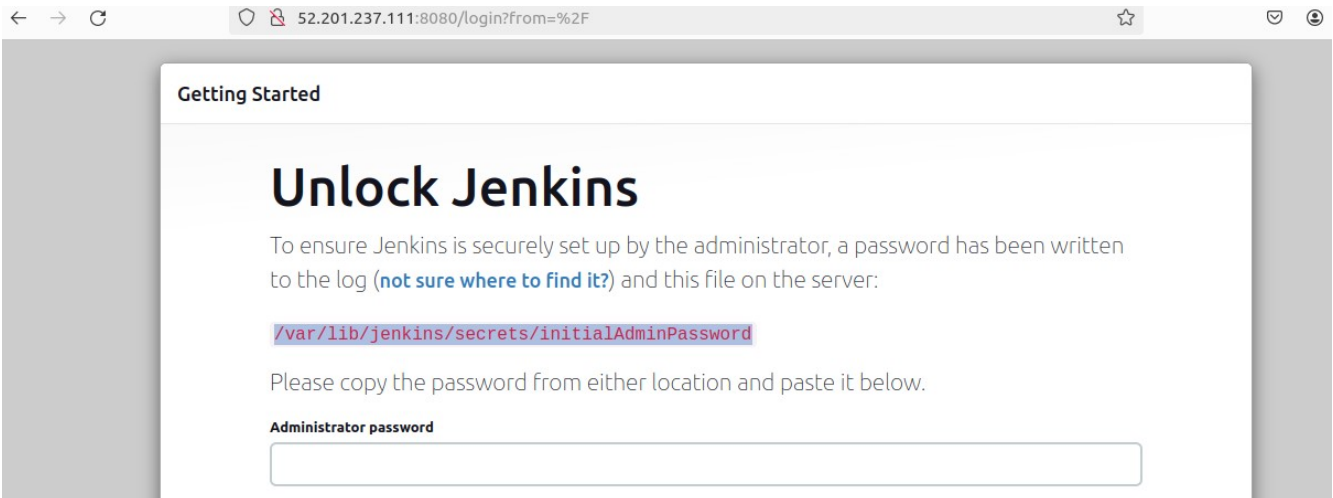
PublicIPs: 54.209.243.142 PrivateIPs: 172.31.21.190

CloudShell Feedback

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GET INSIDE JENKINS

52.201.237.111:8080



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

Create Slave Node to join the Master Node existing on Jenkins

Manage Jenkins – System Configure – Nodes

← → ↻ 52.201.237.111:8080/manage/computer/ ☆ 🔒 1 1 subby ▾

Jenkins

Search (CTRL+K) ?

Dashboard > Manage Jenkins > Nodes >

Nodes

Clouds

Build Queue

Build Executor Status

Nodes

Build Queue

Build Executor Status

Nodes

+ New Node Configure Monitors

S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	5.17 GiB	0 B	5.17 GiB	0ms
	Data obtained	17 min	17 min	17 min	17 min	17 min	17 min

Icon: S M L

← → ↻ 52.201.237.111:8080/manage/computer/createItem ☆ 🔒 1 1 subby ▾

Dashboard > Manage Jenkins > Nodes >

Launch method ?

Launch agents via SSH ▾

Host ?

172.31.21.190

Credentials ?

ubuntu (1234) ▾

+ Add ▾

Host Key Verification Strategy ?

Non verifying Verification Strategy ▾ ?

Advanced ▾

← → ↻ Jenkins

Search (CTRL+K) ? 🔒 1 1 subby ▾

Dashboard > Manage Jenkins > Nodes >

Nodes

Clouds

Build Queue

Build Executor Status

Nodes

Build Queue

Build Executor Status

Nodes

+ New Node Configure Monitors

S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	4.94 GiB	0 B	4.94 GiB	0ms
	slave1	Linux (amd64)	In sync	5.34 GiB	0 B	5.34 GiB	61ms
	Data obtained	36 sec	36 sec	36 sec	36 sec	36 sec	36 sec

In Master machine:
Initiate git

```
mkdir folder1
cd folder1
git init
touch file1
git add . && git commit -m "first commit"
```

```
ubuntu@ip-172-31-16-132:~$ cd folder1
ubuntu@ip-172-31-16-132:~/folder1$ ls
file1
ubuntu@ip-172-31-16-132:~/folder1$ git add . && git commit -m "first commit"
[master (root-commit) 32ce4ad] first commit
Committer: Ubuntu <ubuntu@ip-172-31-16-132.ec2.internal>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

    git commit --amend --reset-author

1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 file1
ubuntu@ip-172-31-16-132:~/folder1$
```

create branch develop

switch to develop branch

```
ubuntu@ip-172-31-16-132:~/folder1$ git branch
* master
ubuntu@ip-172-31-16-132:~/folder1$ git branch develop
ubuntu@ip-172-31-16-132:~/folder1$ git branch
  develop
* master
ubuntu@ip-172-31-16-132:~/folder1$ git checkout develop
Switched to branch 'develop'
ubuntu@ip-172-31-16-132:~/folder1$
```

Create a repo in git: say jenkins-assignment

The screenshot shows the GitHub interface for a repository named 'jenkins-assignment' owned by 'Subby12'. The repository is public. At the top, there are navigation tabs for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. Below the repository name, there are buttons for Pin, Unwatch (1), Fork (0), and Star (0). The main content area has two cards: 'Set up GitHub Copilot' and 'Add collaborators to this repository'. Below these is a 'Quick setup' section with a text box containing the repository URL 'https://github.com/Subby12/jenkins-assignment.git' and a note about including README, LICENSE, and .gitignore. At the bottom, there is a section for creating a new repository on the command line with the commands 'echo "# jenkins-assignment" >> README.md' and 'git init'.

git remote add origin <https://github.com/Subby12/jenkins-assignment.git>

git push --all

```
ubuntu@ip-172-31-16-132:~/folder1$ git remote add origin https://github.com/Subby12/jenkins-assignment.git
ubuntu@ip-172-31-16-132:~/folder1$ git push --all
Username for 'https://github.com': subby12
Password for 'https://subby12@github.com':
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 217 bytes | 217.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Subby12/jenkins-assignment.git
 * [new branch]      develop -> develop
 * [new branch]      master -> master
ubuntu@ip-172-31-16-132:~/folder1$
```


i-0039286d6586a4c36 (Master)

PublicIPs: 52.201.237.111 PrivateIPs: 172.31.16.132






Inside the repo: jenkins-assignment

The screenshot shows the GitHub interface for the repository 'Subby12 / jenkins-assignment'. The repository is public and has 2 branches (develop and master) and 0 tags. The 'About' section is empty, stating 'No description, website, or topics provided.' The 'Activity' section shows 1 commit by 'Ubuntu' 16 minutes ago, with a file named 'file1'.

Create Job in Jenkins

 Jenkins


Search (CTRL+K)


 subby


Dashboard > All >

Enter an item name

» Required field

**Freestyle project**
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.

**Pipeline**
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

**Multi-configuration project**
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

OK

Cancel

Dashboard > Job1 > Configuration

Configure

General

Source Code Management

Build Triggers

Build Environment

Build Steps

Post-build Actions

Repositories ?

Repository URL ?

Credentials ?

- none -

+ Add

Advanced

Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?


Save

Apply


Apply and Save
Build Now


← → ↻ 52.201.237.111:8080/job/Job1/1/console


Dashboard > Job1 > #1 > Console Output


Status  **Console Output**


</> Changes

 **Console Output**

 View as plain text

 Edit Build Information

 Delete build '#1'

 Git Build Data

```
Started by user subby
Running as SYSTEM
Building remotely on slavel in workspace /home/ubuntu/jenkins/workspace/Job1
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/Subby12/jenkins-assignment.git
> git init /home/ubuntu/jenkins/workspace/Job1 # timeout=10
Fetching upstream changes from https://github.com/Subby12/jenkins-assignment.git
> git --version # timeout=10
> git --version # 'git version 2.34.1'
> git fetch --tags --force --progress -- https://github.com/Subby12/jenkins-assignment.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url https://github.com/Subby12/jenkins-assignment.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 32ce4add4c289db7fc508dc396d246accb3fefec (refs/remotes/origin/develop)
> git config core.sparsecheckout # timeout=10
> git checkout -f 32ce4add4c289db7fc508dc396d246accb3fefec # timeout=10
Commit message: "first commit"
First time build. Skipping changelog.
Finished: SUCCESS
```

Check the Slave Server for update:

```
ubuntu@ip-172-31-21-190:~$ ls
jenkins
ubuntu@ip-172-31-21-190:~$ cd jenkins
ubuntu@ip-172-31-21-190:~/jenkins$ ls
remoting  remoting.jar  workspace
ubuntu@ip-172-31-21-190:~/jenkins$ cd workspace
ubuntu@ip-172-31-21-190:~/jenkins/workspace$ ls
Job1
ubuntu@ip-172-31-21-190:~/jenkins/workspace$ cd Job1
ubuntu@ip-172-31-21-190:~/jenkins/workspace/Job1$ ls
file1
ubuntu@ip-172-31-21-190:~/jenkins/workspace/Job1$
```

i-06c7eeddd1d232d0d (Slave)

PublicIPs: 54.209.243.142 PrivateIPs: 172.31.21.190