

## CI/CD WITH JENKINS PROJECT

### SUMMARY: INSTALLED AND CONFIGURED JENKINS TO AUTOMATE BUILD AND DEPLOYMENT PROCESS

#### STEP 1: FIRST EC2 INSTANCE IS RUNNING MODE AND TO CONNECT

The screenshot displays the AWS Management Console interface. The top navigation bar shows the user is logged in as 'Balasubramanian' in the 'Asia Pacific (Mumbai)' region. The main content area is titled 'Instances (1/1)' and shows a single EC2 instance named 'linux1' with ID 'i-0ebd6cdc232866564'. The instance is in a 'Running' state and is of type 't2.micro'. The 'Security' tab is selected, showing details such as the IAM Role, Owner ID, and Launch time. The console also shows a list of instances with columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability. The instance 'linux1' is highlighted, and its details are shown below the table. The bottom of the screenshot shows a Windows taskbar with various application icons.

#### STEP 2: `sudo su` - SWITCHES THE USER TO ROOT ACCOUNT AND DOWNLOADS THE JENKINS REPOSITORY FILE AND SAVES IT TO `/etc/yum.repos.d/Jenkins.repo`

The screenshot shows a terminal window on an Amazon Linux 2023 EC2 instance. The user is logged in as 'ec2-user' and has executed the following commands:

```
[ec2-user@ip-172-31-10-185 ~]$ sudo su -
[root@ip-172-31-10-185 ~]# sudo yum update -y
Amazon Linux 2023 Kernel Livepatch repository
Dependencies resolved.
Nothing to do.
Complete!
[root@ip-172-31-10-185 ~]# sudo wget -O /etc/yum.repos.d/jenkins.repo \https://pkg.jenkins.io/redhat-stable/jenkins.repo
```

The terminal output shows the successful execution of the commands. The user has switched to the root account and updated the system. The Jenkins repository file has been downloaded and saved to `/etc/yum.repos.d/jenkins.repo`. The bottom of the screenshot shows a Windows taskbar with various application icons.



Launch an instance | EC2 | ap-south-1 | Instances | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | +

ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-0ebd6cdc232866564... | Paused

Sign In | ADP ADPV... | Amazon Web Servi...

aws | Search | [Alt+S] | Asia Pacific (Mumbai) | Balasubramanian

Total 37 MB/s | 105 MB 00:02

Running transaction check  
Transaction check succeeded.  
Running transaction test  
Transaction test succeeded.  
Running transaction  
Preparing :  
Installing : fonts-filesystem-1:2.0.5-12.amzn2023.0.2.noarch 1/1  
Installing : libpng-2:1.6.37-10.amzn2023.0.6.x86\_64 1/35  
Installing : dejavu-sans-mono-fonts-2.37-16.amzn2023.0.2.noarch 2/35  
Installing : dejavu-sans-fonts-2.37-16.amzn2023.0.2.noarch 3/35  
Installing : libICE-1.1.1-3.amzn2023.0.1.x86\_64 4/35  
Installing : libSM-1.2.4-3.amzn2023.0.1.x86\_64 5/35  
Installing : dejavu-serif-fonts-2.37-16.amzn2023.0.2.noarch 6/35  
Running scriptlet: xml-common-0.6.3-56.amzn2023.0.2.noarch 7/35  
Installing : xml-common-0.6.3-56.amzn2023.0.2.noarch 8/35  
Installing : pixman-0.43.4-1.amzn2023.0.4.x86\_64 8/35  
Installing : libjpeg-turbo-2.1.4-2.amzn2023.0.5.x86\_64 9/35  
Installing : libbrotli-1.0.9-4.amzn2023.0.2.x86\_64 10/35  
Installing : libXau-1.0.11-6.amzn2023.0.1.x86\_64 11/35  
Installing : libxcb-1.17.0-1.amzn2023.0.1.x86\_64 12/35  
Installing : libX11-common-1.8.10-2.amzn2023.0.1.noarch 13/35  
Installing : libX11-common-1.8.10-2.amzn2023.0.1.noarch [=====] 14/35

i-0ebd6cdc232866564 (linux1)

PublicIPs: 3.6.160.65 PrivateIPs: 172.31.10.185

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Windows icons

11:28 AM 04-Jul-25

Launch an instance | EC2 | ap-south-1 | Instances | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | +

ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-0ebd6cdc232866564... | Paused

Sign In | ADP ADPV... | Amazon Web Servi...

aws | Search | [Alt+S] | Asia Pacific (Mumbai) | Balasubramanian

Installed:

alsa-lib-1.2.7.2-1.amzn2023.0.2.x86\_64  
dejavu-sans-fonts-2.37-16.amzn2023.0.2.noarch  
dejavu-serif-fonts-2.37-16.amzn2023.0.2.noarch  
fonts-filesystem-1:2.0.5-12.amzn2023.0.2.noarch  
giflib-5.2.1-9.amzn2023.0.1.x86\_64  
google-noto-sans-vf-fonts-20201206-2.amzn2023.0.2.noarch  
harfbuzz-7.0.0-2.amzn2023.0.2.x86\_64  
java-21-amazon-corretto-headless-1:21.0.7+6-1.amzn2023.1.x86\_64  
langpacks-core-font-en-3.0-21.amzn2023.0.4.noarch  
libSM-1.2.4-3.amzn2023.0.1.x86\_64  
libX11-common-1.8.10-2.amzn2023.0.1.noarch  
libXext-1.3.6-1.amzn2023.0.1.x86\_64  
libXinerama-1.1.5-6.amzn2023.0.1.x86\_64  
libXrender-0.9.11-6.amzn2023.0.1.x86\_64  
libXtst-1.2.5-1.amzn2023.0.1.x86\_64  
libjpeg-turbo-2.1.4-2.amzn2023.0.5.x86\_64  
libxcb-1.17.0-1.amzn2023.0.1.x86\_64  
xml-common-0.6.3-56.amzn2023.0.2.noarch  
cairo-1.18.0-4.amzn2023.0.1.x86\_64  
dejavu-sans-mono-fonts-2.37-16.amzn2023.0.2.noarch  
fontconfig-2.13.94-2.amzn2023.0.2.x86\_64  
freetype-2.13.2-5.amzn2023.0.1.x86\_64  
google-noto-fonts-common-20201206-2.amzn2023.0.2.noarch  
graphite2-1.3.14-7.amzn2023.0.2.x86\_64  
java-21-amazon-corretto-1:21.0.7+6-1.amzn2023.1.x86\_64  
jvarkit-packages-filesystem-6.0.0-7.amzn2023.0.6.noarch  
libICE-1.1.1-3.amzn2023.0.1.x86\_64  
libX11-1.8.10-2.amzn2023.0.1.x86\_64  
libXau-1.0.11-6.amzn2023.0.1.x86\_64  
libXi-1.8.2-1.amzn2023.0.1.x86\_64  
libXrandr-1.5.4-3.amzn2023.0.1.x86\_64  
libXt-1.3.0-3.amzn2023.0.1.x86\_64  
libbrotli-1.0.9-4.amzn2023.0.2.x86\_64  
libpng-2:1.6.37-10.amzn2023.0.6.x86\_64  
pixman-0.43.4-1.amzn2023.0.4.x86\_64

Complete!  
[root@ip-172-31-10-185 ~]#

i-0ebd6cdc232866564 (linux1)

PublicIPs: 3.6.160.65 PrivateIPs: 172.31.10.185

CloudShell Feedback

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## STEP 4: `sudo yum install Jenkins -y` → INSTALLS JENKINS WITH AUTOMATIC CONFIRMATION

The screenshot shows the AWS CloudShell interface with a terminal window. The terminal output shows the command `sudo yum install jenkins -y` being executed. The output indicates that the package `jenkins-2.504.3-1.1.noarch.rpm` is being installed from the `jenkins` repository. The installation process includes downloading the package, running a transaction check, and verifying the installation. The terminal output is as follows:

```
[root@ip-172-31-10-185 ~]# sudo yum install jenkins -y
Last metadata expiration check: 0:01:28 ago on Fri Jul 4 05:58:05 2025.
Dependencies resolved.
=====
Package                               Architecture Version      Repository    Size
-----
Installing:
jenkins                               noarch       2.504.3-1.1  jenkins       90 M
Transaction Summary
-----
Install 1 Package
Total download size: 90 M
Installed size: 90 M
Downloading Packages:
jenkins-2.504.3-1.1.noarch.rpm        35 MB/s | 90 MB  00:02
-----
Total                               35 MB/s | 90 MB  00:02
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
```

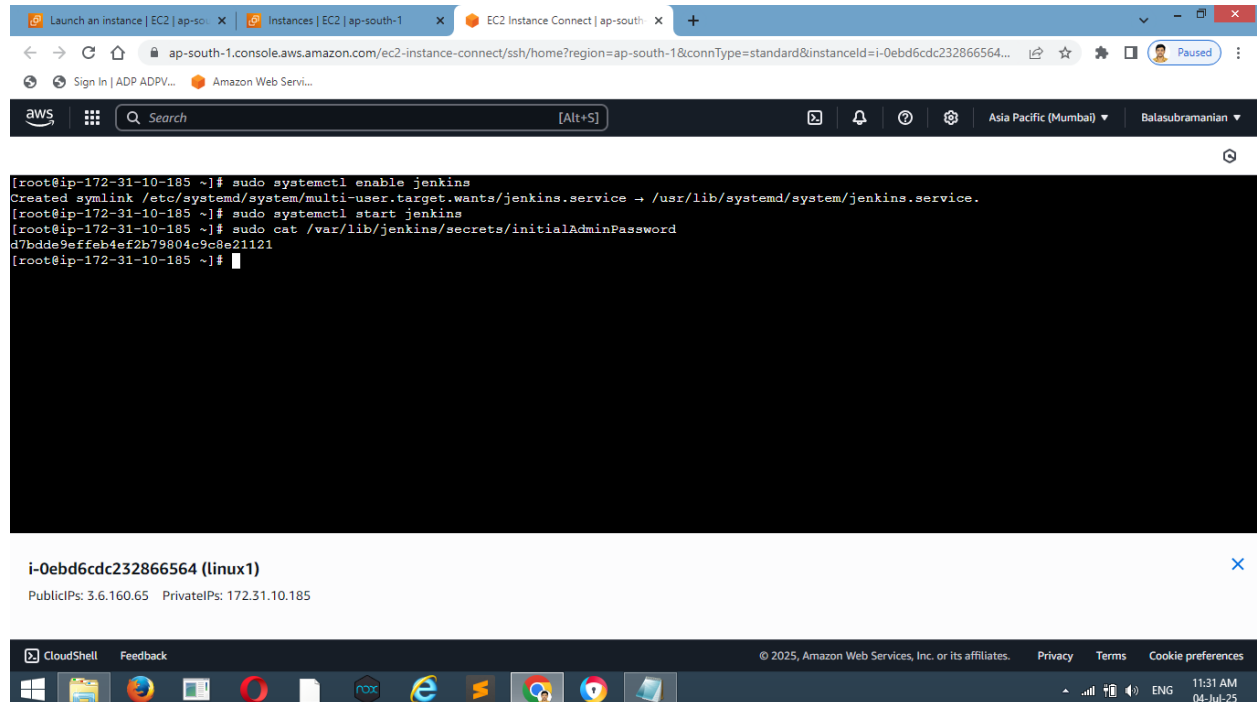
Below the terminal output, the instance ID `i-0ebd6cdc232866564` is displayed, along with its public and private IP addresses: `PublicIPs: 3.6.160.65` and `PrivateIPs: 172.31.10.185`.

The screenshot shows the AWS CloudShell interface with a terminal window. The terminal output shows the completion of the Jenkins installation. The output indicates that the package `jenkins-2.504.3-1.1.noarch.rpm` is being installed from the `jenkins` repository. The installation process includes downloading the package, running a transaction check, and verifying the installation. The terminal output is as follows:

```
Total download size: 90 M
Installed size: 90 M
Downloading Packages:
jenkins-2.504.3-1.1.noarch.rpm        35 MB/s | 90 MB  00:02
-----
Total                               35 MB/s | 90 MB  00:02
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing                : 1/1
  Running scriptlet: jenkins-2.504.3-1.1.noarch : 1/1
  Installing         : jenkins-2.504.3-1.1.noarch : 1/1
  Running scriptlet: jenkins-2.504.3-1.1.noarch : 1/1
  Verifying          : jenkins-2.504.3-1.1.noarch : 1/1
Installed:
jenkins-2.504.3-1.1.noarch
Complete!
[root@ip-172-31-10-185 ~]#
```

Below the terminal output, the instance ID `i-0ebd6cdc232866564` is displayed, along with its public and private IP addresses: `PublicIPs: 3.6.160.65` and `PrivateIPs: 172.31.10.185`.

**STEP 5:** `sudo systemctl enable jenkins` – ENABLES JENKINS TO START ON BOOT, `sudo systemctl start jenkins` – STARTS THE JENKINS SERVICE, `sudo cat /var/lib/Jenkins/secrets/initialAdminPassword` – DISPLAYS THE INITIAL JENKINS ADMIN PASSWORD

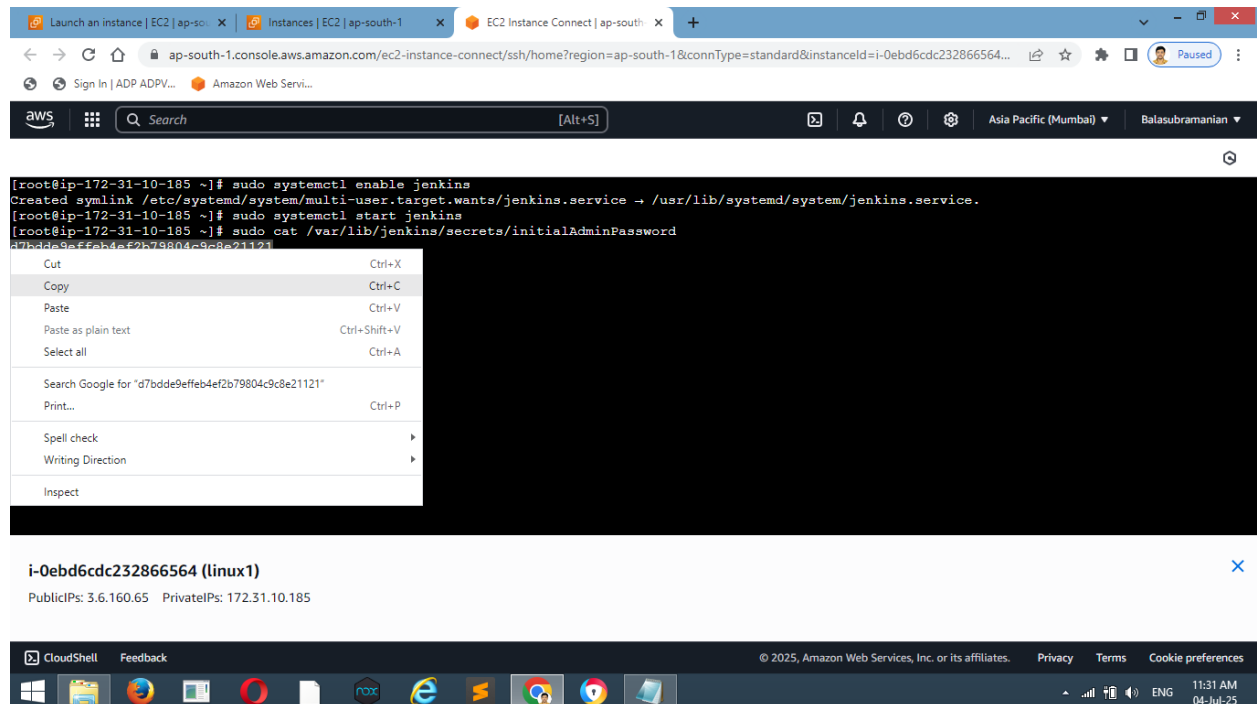


The screenshot shows the AWS Management Console with the EC2 Instance Connect terminal open. The terminal output shows the following commands and results:

```
[root@ip-172-31-10-185 ~]# sudo systemctl enable jenkins
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /usr/lib/systemd/system/jenkins.service.
[root@ip-172-31-10-185 ~]# sudo systemctl start jenkins
[root@ip-172-31-10-185 ~]# sudo cat /var/lib/jenkins/secrets/initialAdminPassword
d7bdd69effeb4ef2b79804c9c8e21121
[root@ip-172-31-10-185 ~]#
```

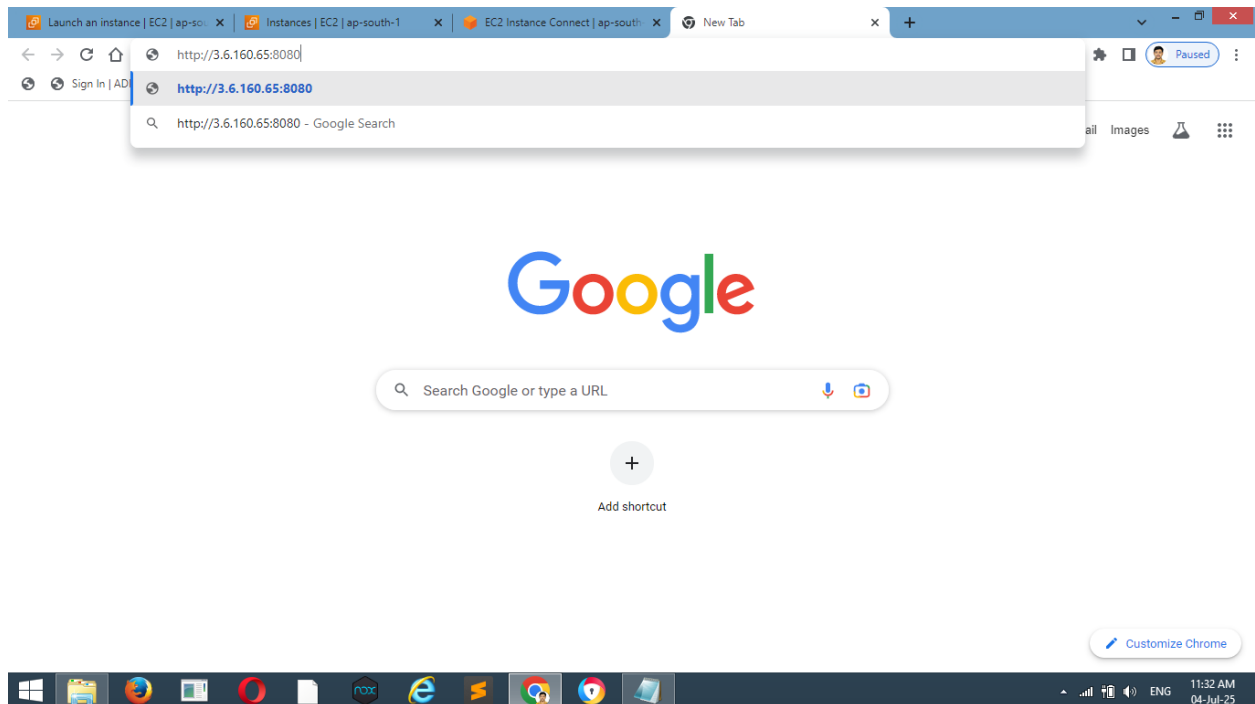
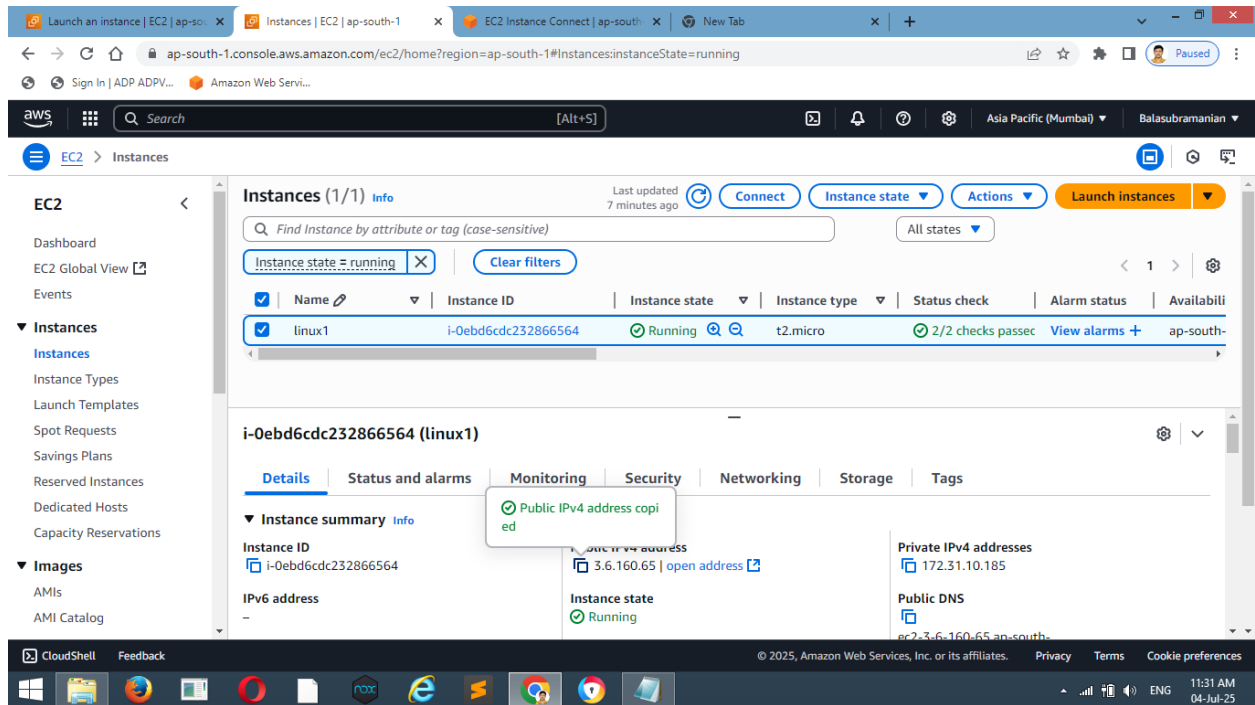
Below the terminal, the instance details for `i-0ebd6cdc232866564 (linux1)` are shown, including PublicIPs: 3.6.160.65 and PrivateIPs: 172.31.10.185.

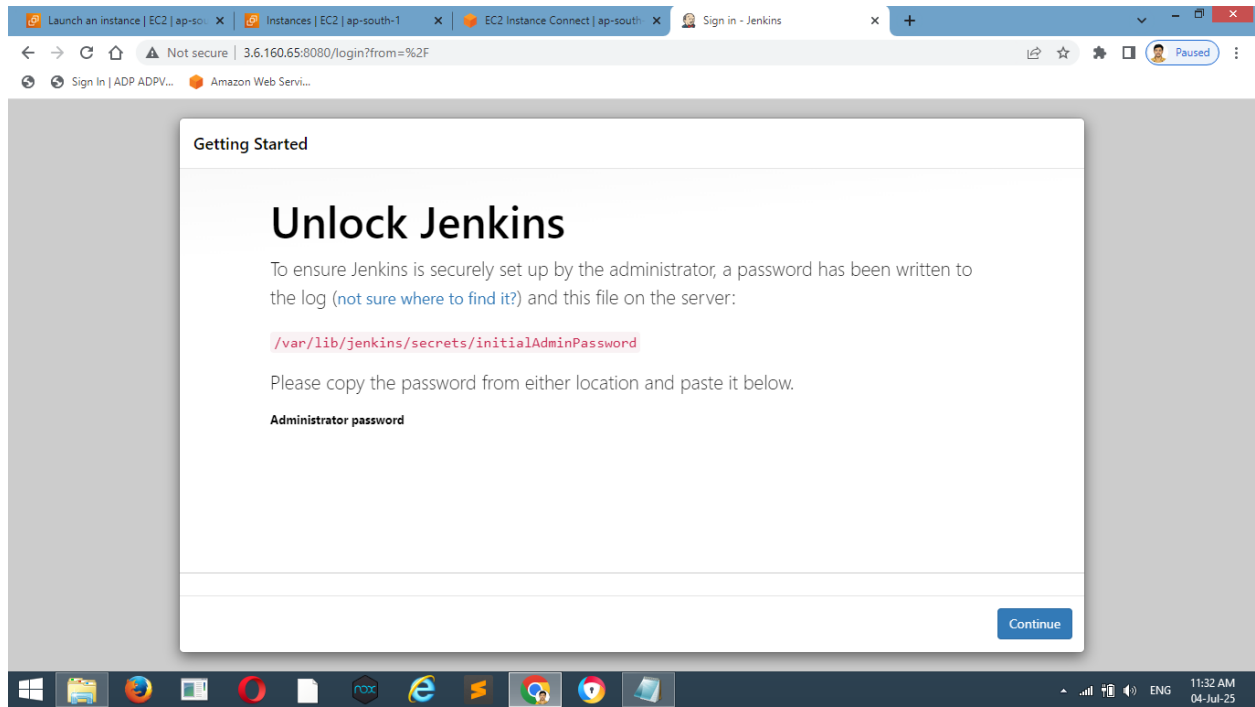
**STEP 6:** COPY THE ADMIN PASSWORD



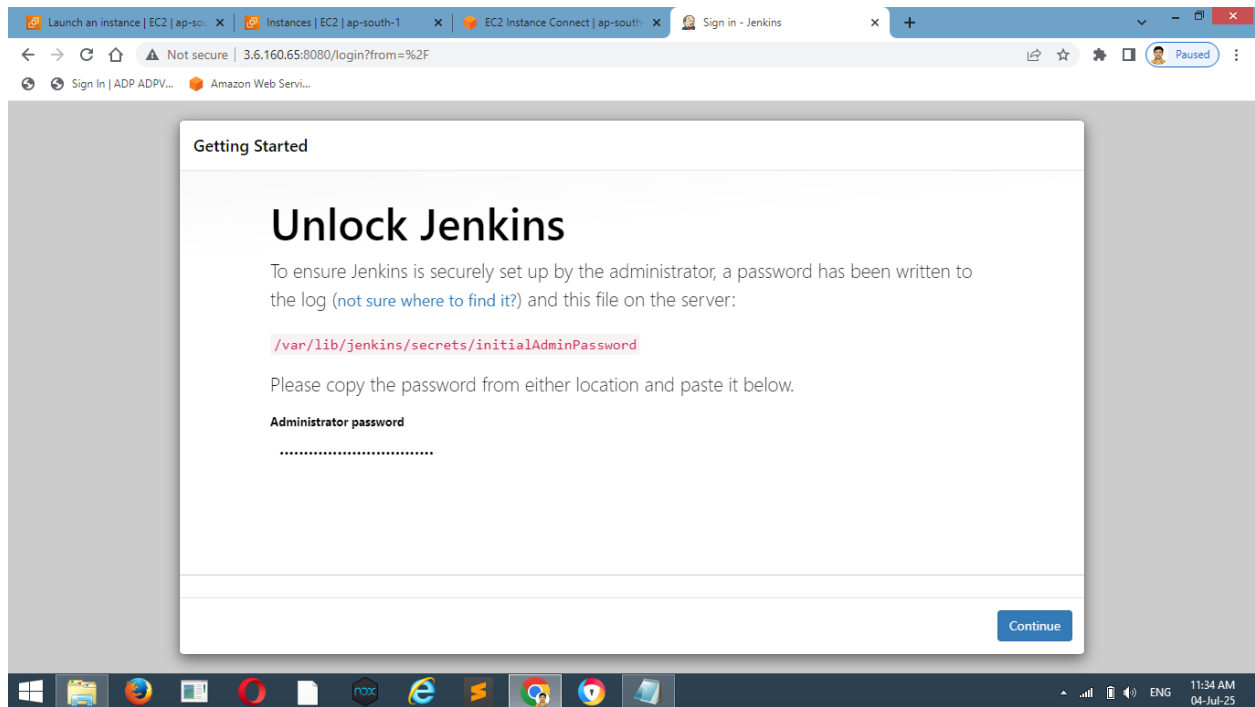
The screenshot shows the same AWS Management Console terminal as before, but with a context menu open over the password output. The menu options include Cut, Copy, Paste, Paste as plain text, Select all, Search Google for "d7bdd69effeb4ef2b79804c9c8e21121", Print..., Spell check, Writing Direction, and Inspect. The password `d7bdd69effeb4ef2b79804c9c8e21121` is visible in the terminal output.

## STEP 7: PASTE THE PUBLIC IP IN BROWSER AND ADD PORT 8080 TO VIEW THE JENKINS WEBSITE

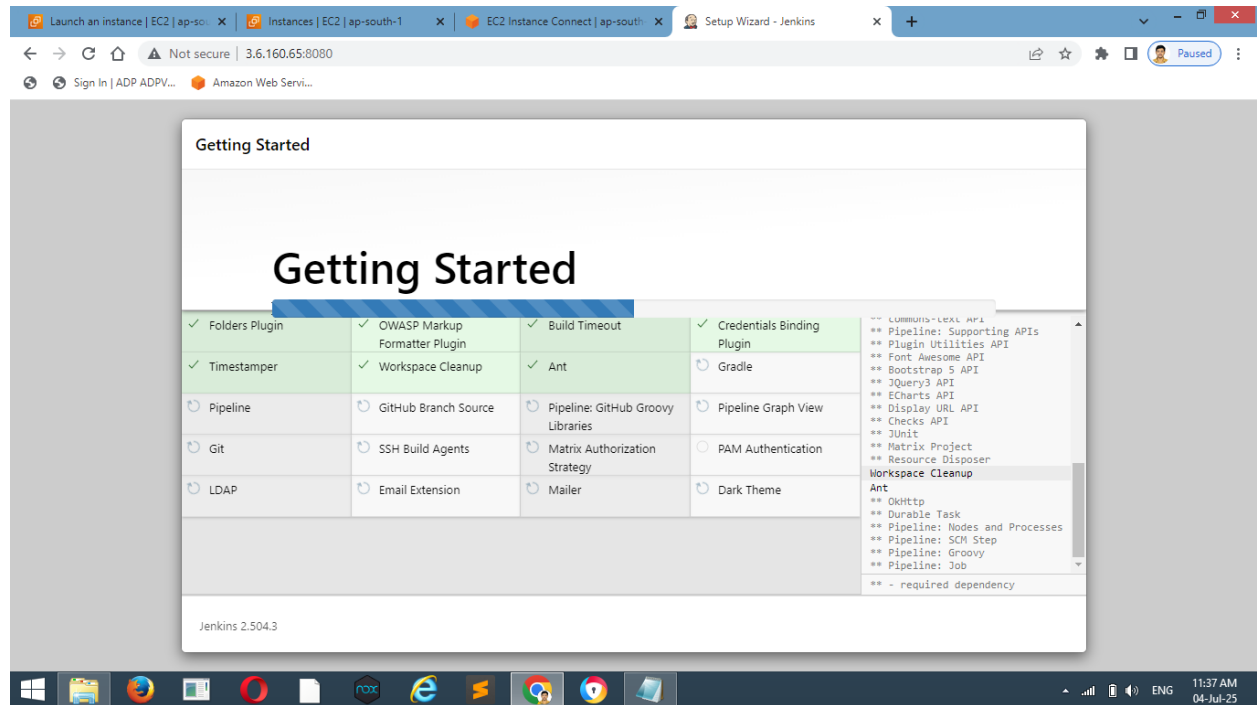




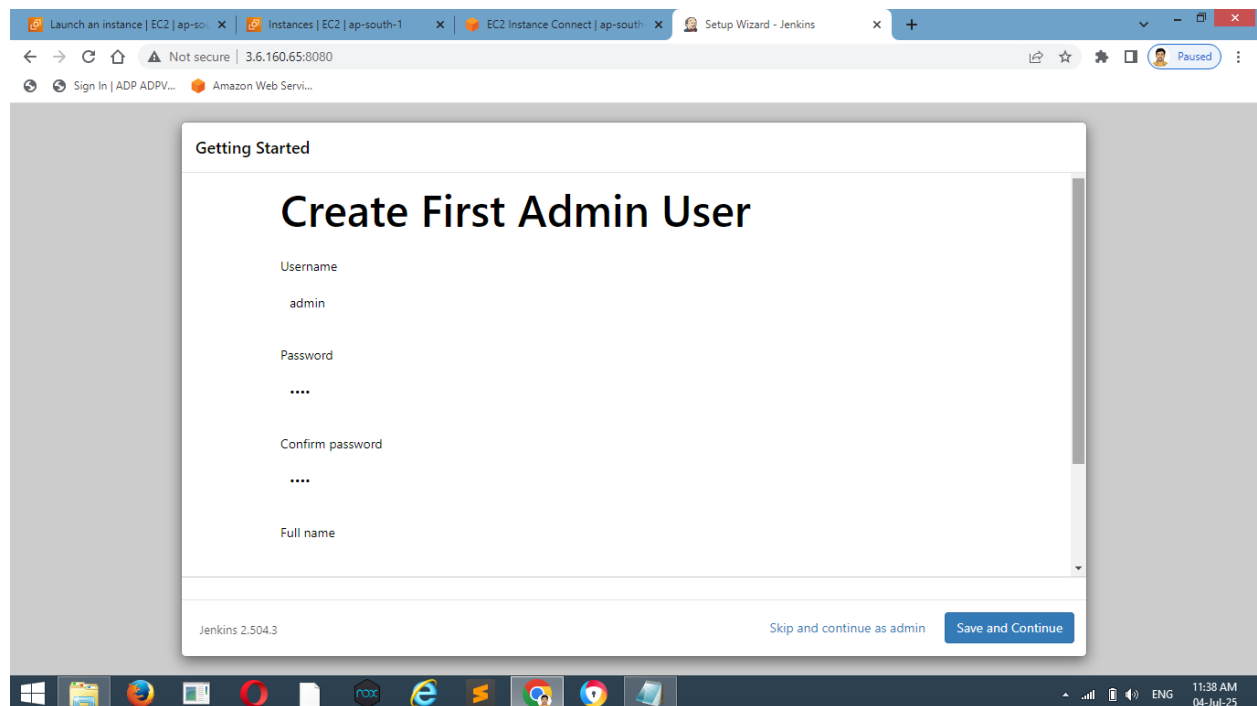
## STEP 8: NEXT PASTE THE ADMIN PASSWORD TO UNLOCK THE JENKINS WEBSITE



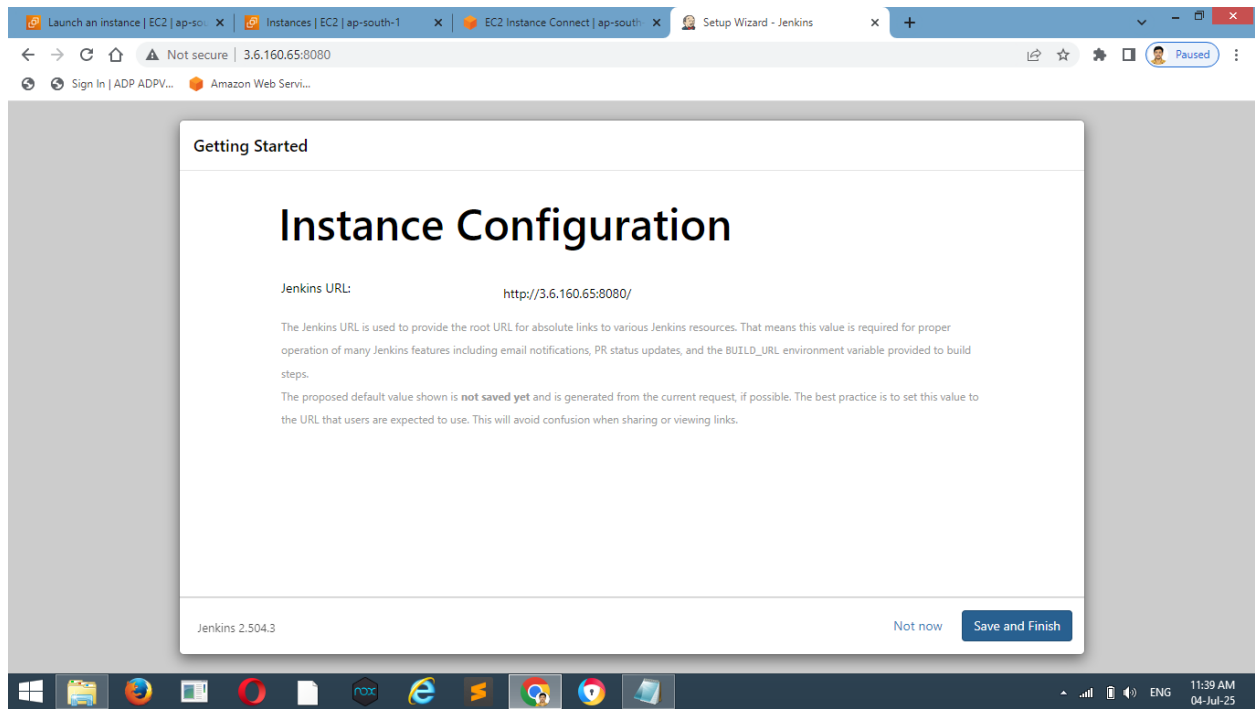
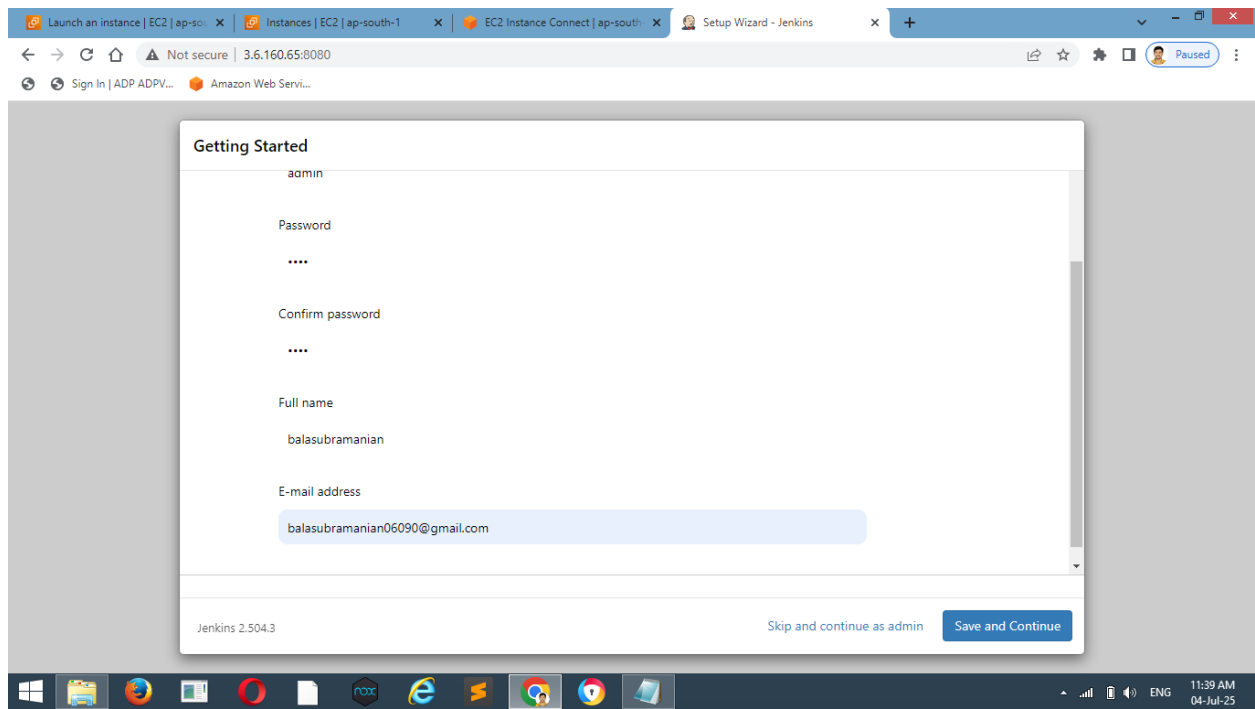
**STEP 9: NEXT CLICK ON THE 'INSTALL SUGGESTED PLUGINS' BUTTON TO INSTALL THE PLUGINS**

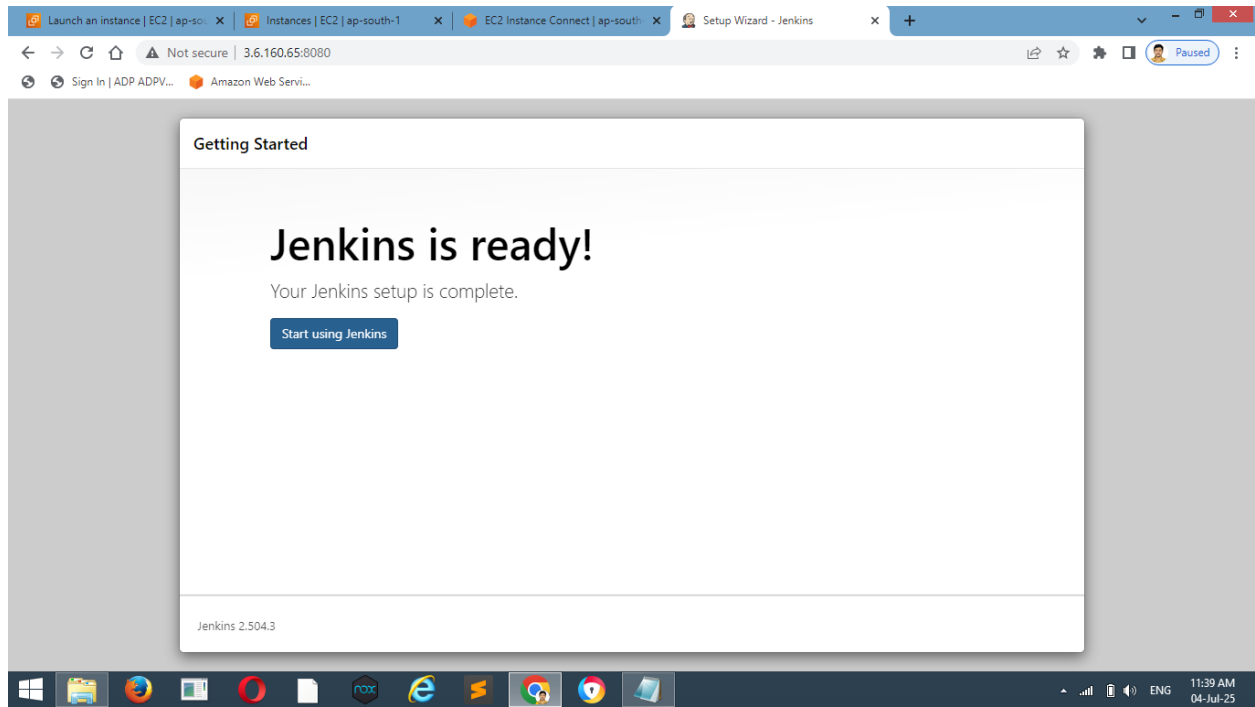


**STEP 10: NEXT CREATE AN ADMIN USER ON THE JENKINS WEBSITE AND FINALLY COMES JENKINS IS READY**

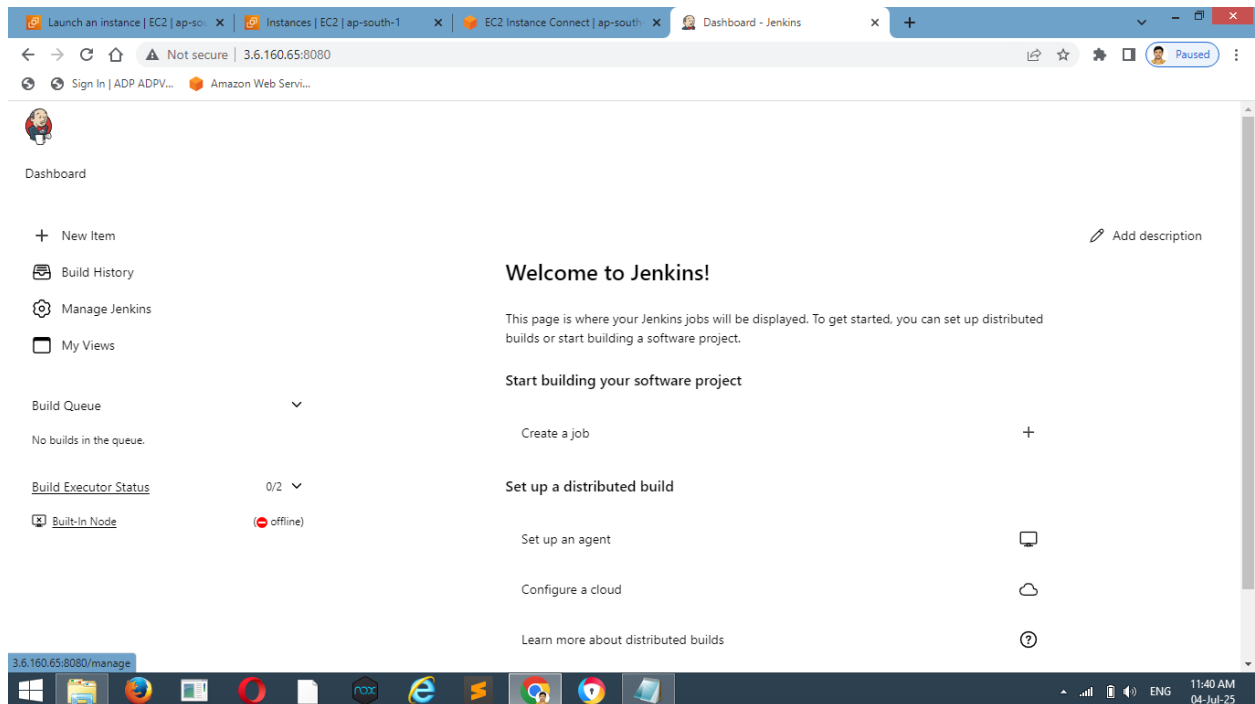








**STEP 11: THE BUILT-IN-NODE IS OFFLINE DUE TO LOW DISK SPACE, SETTING THESE OPTIONS PREVENTS AGENTS FROM GOING OFFLINE. CLICK ON THE MANAGE JENKINS BUTTON. SETUP WORKING MODE IN BUILT-IN NODE PROCESS IN BELOW**



Launch an instance | EC2 | ap-sou-1

Instances | EC2 | ap-south-1

EC2 Instance Connect | ap-south-1

Manage Jenkins - Jenkins

← → ↻ ⌂ ⚠ Not secure | 3.6.160.65:8080/manage/

🔑 Sign In | ADP ADPV... 🟡 Amazon Web Servi...

DashboardManage Jenkins

⚙️ Manage Jenkins

📁 My Views

Build Queue

No builds in the queue.

Build Executor Status0/2

🔌 Built-In Nodeoffline

Jenkins took some agents offline because [their key health metrics](#) went below a threshold. If you don't want Jenkins to do this, [change the setting](#).

Building on the built-in node can be a security issue. You should set up distributed builds. See [the documentation](#).

System Configuration

⚙️ System

Configure global settings and paths.

🔧 Tools

Configure tools, their locations and automatic installers.

🔌 Plugins

Add, remove, disable or enable plugins that can extend the functionality of Jenkins.

💻 Nodes

Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

☁ Clouds

Add, remove, and configure cloud instances to provision agents on-demand.

🖌 Appearance

Configure the look and feel of Jenkins

Security

3.6.160.65:8080/manage/computer/

📶 🔊 ENG 11:40 AM 04-Jul-25

Launch an instance | EC2 | ap-sou-1

Instances | EC2 | ap-south-1

EC2 Instance Connect | ap-south-1

Nodes - Jenkins

← → ↻ ⌂ ⚠ Not secure | 3.6.160.65:8080/manage/computer/

🔑 Sign In | ADP ADPV... 🟡 Amazon Web Servi...

DashboardManage JenkinsNodes

🖌 Nodes

☁ Clouds

Build Queue

No builds in the queue.

Build Executor Status0/2

🔌 Built-In Nodeoffline

Nodes

Configure Node Monitors

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	5.90 GiB	🟡 0 B	🟡 470.20 MiB	0ms ⚙️
	Data obtained	9 min 41 sec	9 min 41 sec	9 min 41 sec	9 min 41 sec	9 min 41 sec	9 min 41 sec
Icon:	S	M	L				Legend

REST APIJenkins 2.504.3

3.6.160.65:8080/manage/computer/configure

📶 🔊 ENG 11:41 AM 04-Jul-25

Launch an instance | EC2 | ap-sou... | Instances | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | Nodes - Jenkins

Not secure | 3.6.160.65:8080/manage/computer/

Sign In | ADP ADPV... | Amazon Web Servi...

Dashboard Manage Jenkins Nodes

### Nodes

Nodes Clouds

Build Queue

No builds in the queue.

Build Executor Status

0/2

Built-In Node

offline

Icon: S M L

S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	5.73 GiB	0 B	470.20 MiB	0ms
	<b>Data obtained</b>	<b>0.12 sec</b>	<b>0.13 sec</b>	<b>0.13 sec</b>	<b>0.12 sec</b>	<b>0.12 sec</b>	<b>0.12 sec</b>

Legend

REST API Jenkins 2.504.3

Windows taskbar: 11:42 AM 04-Jul-25

## STEP 12: `sudo yum install git -y` → INSTALLS GIT WITH AUTOMATIC CONFIRMATION

Launch an instance | EC2 | ap-sou... | Instances | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | Built-In Node - Jenkins

ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-0ebd6cdc232866564...

Sign In | ADP ADPV... | Amazon Web Servi...

aws Search [Alt+S]

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```
[root@ip-172-31-10-185 ~]# sudo yum install git -y
```

i-0ebd6cdc232866564 (linux1)

PublicIPs: 3.6.160.65 PrivateIPs: 172.31.10.185

CloudShell Feedback

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Windows taskbar: 11:45 AM 04-Jul-25

Launch an instance | EC2 | ap-south-1 | Instances | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | Built-In Node - Jenkins

ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-0ebd6cdc232866564...

Sign In | ADP ADPV... | Amazon Web Servi...

aws Search [Alt+S] Asia Pacific (Mumbai) Balasubramanian

```
Installing      : perl-lib-0.65-477.amzn2023.0.7.x86_64      3/8
Installing      : perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64 4/8
Installing      : perl-File-Find-1.37-477.amzn2023.0.7.noarch 5/8
Installing      : perl-Error-1:0.17029-5.amzn2023.0.2.noarch 6/8
Installing      : perl-Git-2.47.1-1.amzn2023.0.3.noarch      7/8
Installing      : git-2.47.1-1.amzn2023.0.3.x86_64          8/8
Running scriptlet: git-2.47.1-1.amzn2023.0.3.x86_64          8/8
Verifying       : git-2.47.1-1.amzn2023.0.3.x86_64          1/8
Verifying       : git-core-2.47.1-1.amzn2023.0.3.x86_64      2/8
Verifying       : git-core-doc-2.47.1-1.amzn2023.0.3.noarch 3/8
Verifying       : perl-Error-1:0.17029-5.amzn2023.0.2.noarch 4/8
Verifying       : perl-File-Find-1.37-477.amzn2023.0.7.noarch 5/8
Verifying       : perl-Git-2.47.1-1.amzn2023.0.3.noarch      6/8
Verifying       : perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64 7/8
Verifying       : perl-lib-0.65-477.amzn2023.0.7.x86_64      8/8

Installed:
git-2.47.1-1.amzn2023.0.3.x86_64      git-core-2.47.1-1.amzn2023.0.3.x86_64      git-core-doc-2.47.1-1.amzn2023.0.3.noarch
perl-Error-1:0.17029-5.amzn2023.0.2.noarch  perl-File-Find-1.37-477.amzn2023.0.7.noarch
perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64  perl-lib-0.65-477.amzn2023.0.7.x86_64      perl-Git-2.47.1-1.amzn2023.0.3.noarch

Complete!
[root@ip-172-31-10-185 ~]#
```

i-0ebd6cdc232866564 (linux1)

PublicIPs: 3.6.160.65 PrivateIPs: 172.31.10.185

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## STEP 13: which git – SHOWS THE PATH OF THE INSTALLED GIT EXECUTABLE TO COPY THE PATH AND PASTE THE PATH IN GIT INSTALLATIONS

Launch an instance | EC2 | ap-south-1 | Instances | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | Built-In Node - Jenkins

ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-0ebd6cdc232866564...

Sign In | ADP ADPV... | Amazon Web Servi...

aws Search [Alt+S] Asia Pacific (Mumbai) Balasubramanian

```
Installing      : perl-lib-0.65-477.amzn2023.0.7.x86_64      3/8
Installing      : perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64 4/8
Installing      : perl-File-Find-1.37-477.amzn2023.0.7.noarch 5/8
Installing      : perl-Error-1:0.17029-5.amzn2023.0.2.noarch 6/8
Installing      : perl-Git-2.47.1-1.amzn2023.0.3.noarch      7/8
Installing      : git-2.47.1-1.amzn2023.0.3.x86_64          8/8
Running scriptlet: git-2.47.1-1.amzn2023.0.3.x86_64          8/8
Verifying       : git-2.47.1-1.amzn2023.0.3.x86_64          1/8
Verifying       : git-core-2.47.1-1.amzn2023.0.3.x86_64      2/8
Verifying       : git-core-doc-2.47.1-1.amzn2023.0.3.noarch 3/8
Verifying       : perl-Error-1:0.17029-5.amzn2023.0.2.noarch 4/8
Verifying       : perl-File-Find-1.37-477.amzn2023.0.7.noarch 5/8
Verifying       : perl-Git-2.47.1-1.amzn2023.0.3.noarch      6/8
Verifying       : perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64 7/8
Verifying       : perl-lib-0.65-477.amzn2023.0.7.x86_64      8/8

Installed:
git-2.47.1-1.amzn2023.0.3.x86_64      git-core-2.47.1-1.amzn2023.0.3.x86_64      git-core-doc-2.47.1-1.amzn2023.0.3.noarch
perl-Error-1:0.17029-5.amzn2023.0.2.noarch  perl-File-Find-1.37-477.amzn2023.0.7.noarch
perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64  perl-lib-0.65-477.amzn2023.0.7.x86_64      perl-Git-2.47.1-1.amzn2023.0.3.noarch

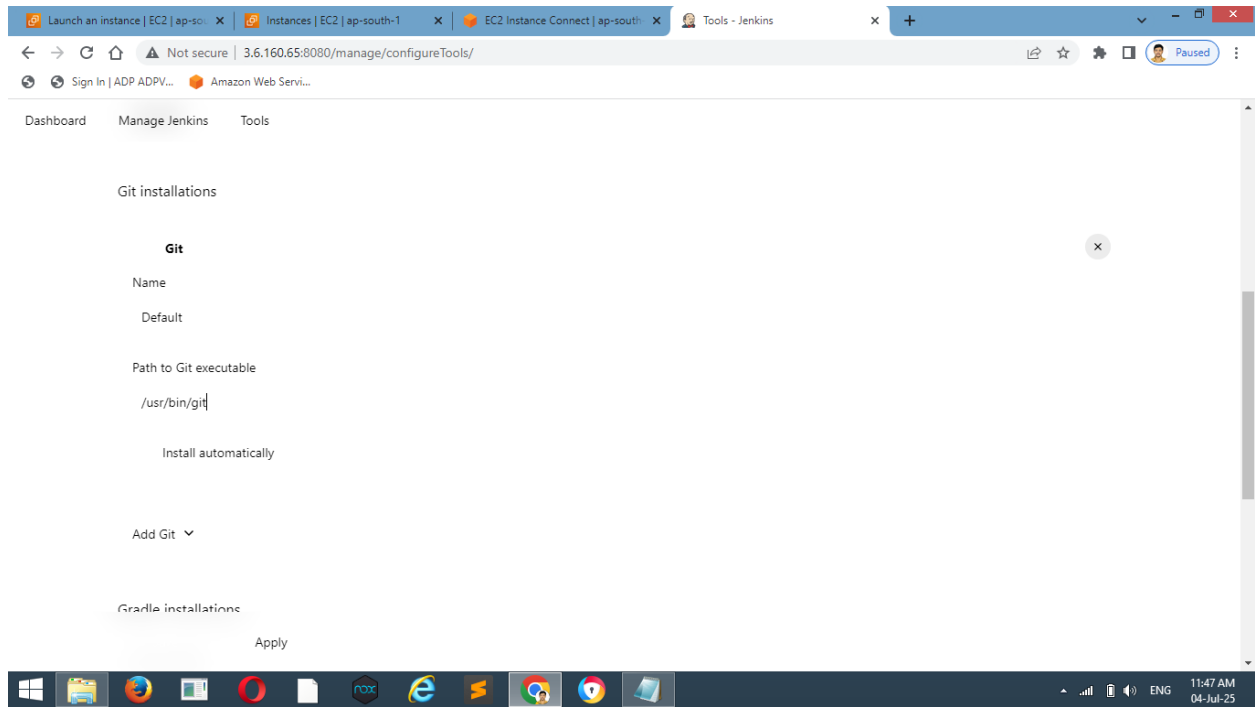
Complete!
[root@ip-172-31-10-185 ~]# which git
```

i-0ebd6cdc232866564 (linux1)

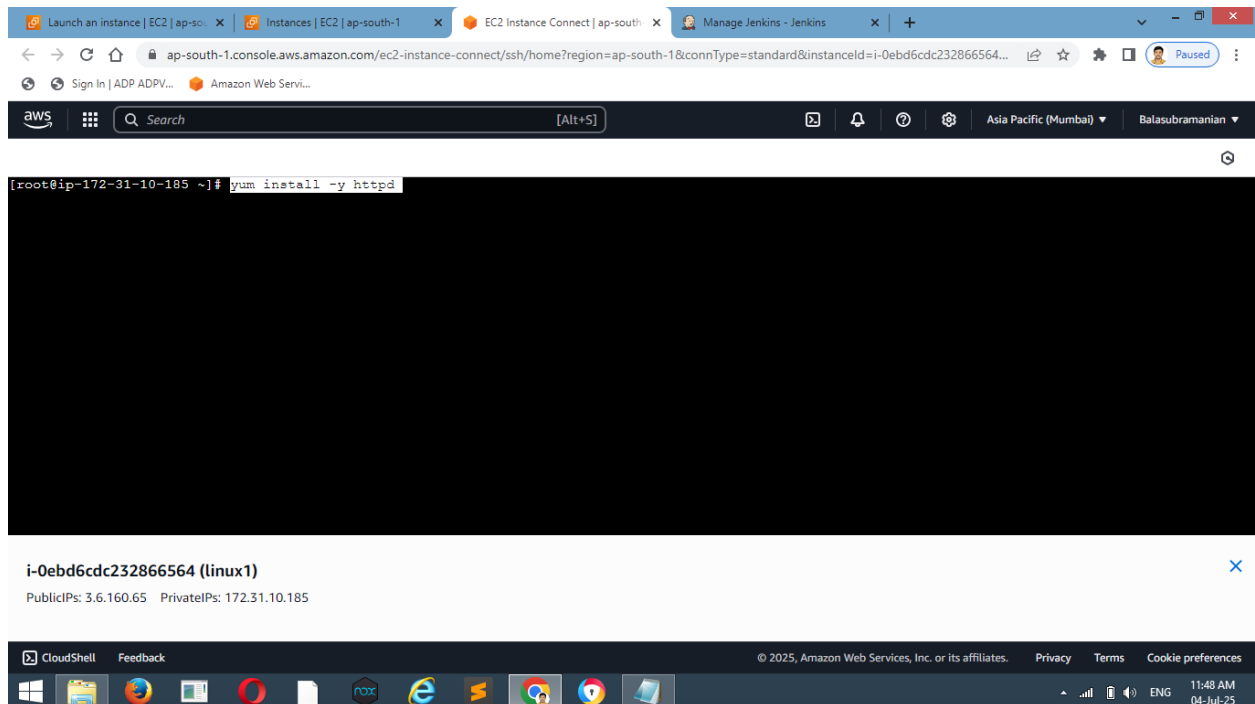
PublicIPs: 3.6.160.65 PrivateIPs: 172.31.10.185

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11:45 AM 04-Jul-25



**STEP 14: `yum install httpd` – INSTALLS THE APACHE HTTP SERVER, `systemctl enable httpd` – ENABLES APACHE TO START ON BOOT, `systemctl start httpd` – STARTS THE APACHE HTTP SERVER**



Launch an instance | EC2 | ap-south-1 | Instances | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | Manage Jenkins - Jenkins

ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=ap-south-1&connType=standard&instanceId=i-0ebd6cdc232866564...

Sign In | ADP ADPV... | Amazon Web Servi...

aws Search [Alt+S] Asia Pacific (Mumbai) Balasubramanian

```
Verifying : apr-1.7.5-1.amzn2023.0.4.x86_64 1/11
Verifying : apr-util-1.6.3-1.amzn2023.0.1.x86_64 2/11
Verifying : apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64 3/11
Verifying : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch 4/11
Verifying : httpd-2.4.62-1.amzn2023.x86_64 5/11
Verifying : httpd-core-2.4.62-1.amzn2023.x86_64 6/11
Verifying : httpd-filesystem-2.4.62-1.amzn2023.noarch 7/11
Verifying : httpd-tools-2.4.62-1.amzn2023.x86_64 8/11
Verifying : mailcap-2.1.49-3.amzn2023.0.3.noarch 9/11
Verifying : mod_http2-2.0.27-1.amzn2023.0.3.x86_64 10/11
Verifying : mod_lua-2.4.62-1.amzn2023.x86_64 11/11

Installed:
apr-1.7.5-1.amzn2023.0.4.x86_64      apr-util-1.6.3-1.amzn2023.0.1.x86_64      apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64
generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch      httpd-2.4.62-1.amzn2023.x86_64      httpd-core-2.4.62-1.amzn2023.x86_64
httpd-filesystem-2.4.62-1.amzn2023.noarch      httpd-tools-2.4.62-1.amzn2023.x86_64      mailcap-2.1.49-3.amzn2023.0.3.noarch
mod_http2-2.0.27-1.amzn2023.0.3.x86_64      mod_lua-2.4.62-1.amzn2023.x86_64

Complete!
[root@ip-172-31-10-185 ~]# systemctl enable httpd
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd.service.
[root@ip-172-31-10-185 ~]# systemctl start httpd
[root@ip-172-31-10-185 ~]#
```

i-0ebd6cdc232866564 (linux1)

PublicIPs: 3.6.160.65 PrivateIPs: 172.31.10.185

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Windows, Edge, Firefox, Chrome, Taskbar, System Tray: 11:49 AM 04-Jul-25

## STEP 15: CREATE THE JENKINS PIPELINE PROJECT

Launch an instance | EC2 | ap-south-1 | Instances | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | Manage Jenkins - Jenkins

Not secure | 3.6.160.65:8080/manage/

Sign In | ADP ADPV... | Amazon Web Servi...

Dashboard Manage Jenkins

+ New Item

Build History

Manage Jenkins

My Views

Build Queue

No builds in the queue.

Build Executor Status

0/2

### Manage Jenkins

Search settings /

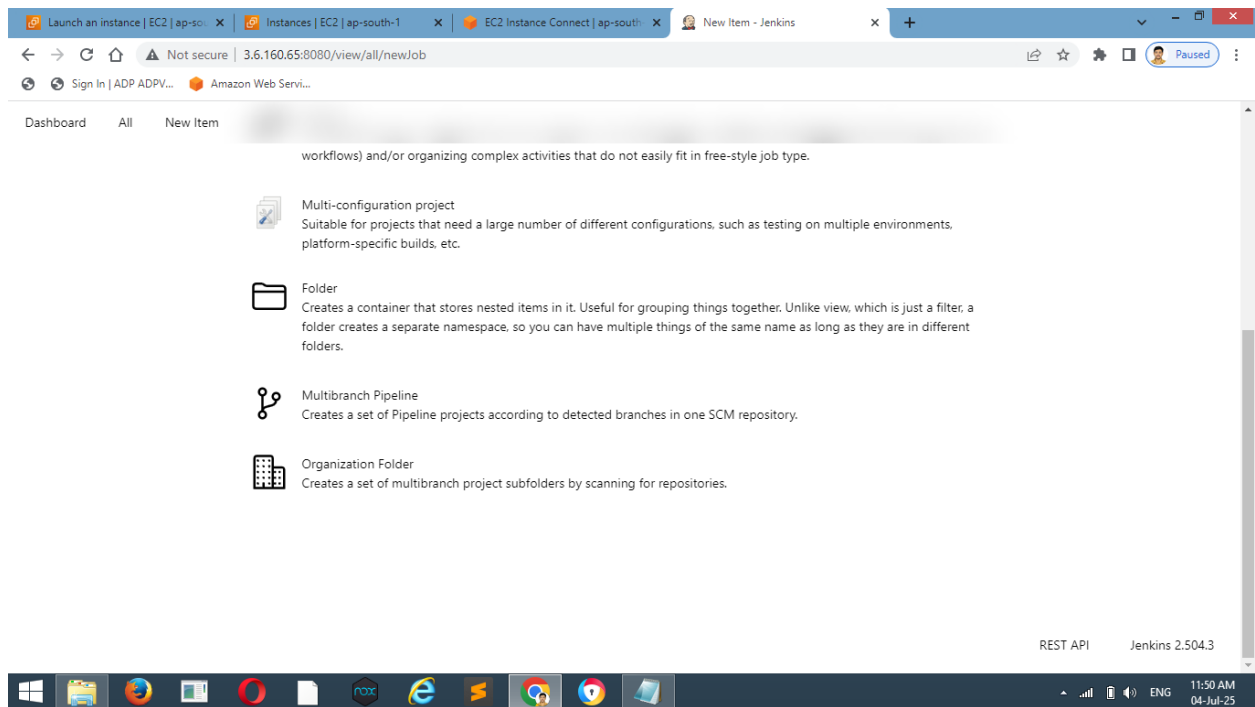
Building on the built-in node can be a security issue. You should set up distributed builds. See [the documentation](#).

#### System Configuration

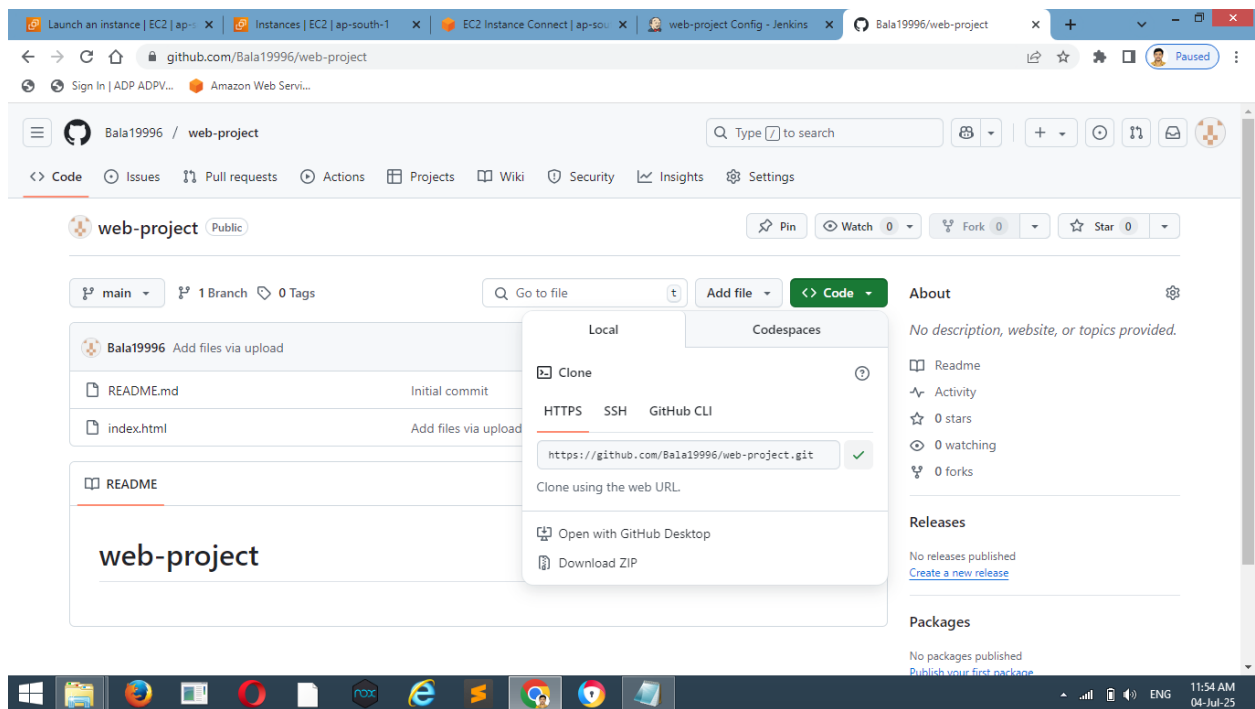
- System: Configure global settings and paths.
- Tools: Configure tools, their locations and automatic installers.
- Plugins: Add, remove, disable or enable plugins that can extend the functionality of Jenkins.
- Nodes: Add, remove, control and monitor the various nodes that Jenkins runs jobs on.
- Clouds: Add, remove, and configure cloud instances to provision agents on-demand.
- Appearance: Configure the look and feel of Jenkins

3.6.160.65:8080/view/all/newJob

Windows, Edge, Firefox, Chrome, Taskbar, System Tray: 11:49 AM 04-Jul-25

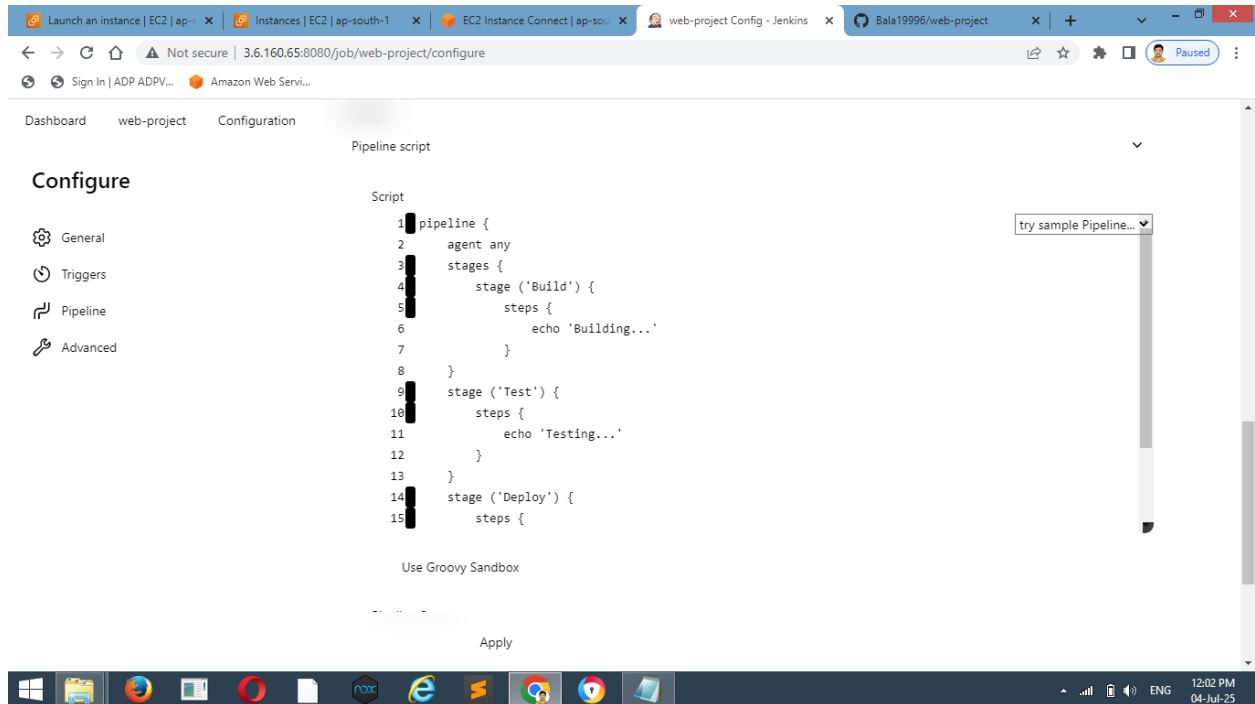


## STEP 16: GO TO GITHUB REPOSITORY AND COPY THE URL



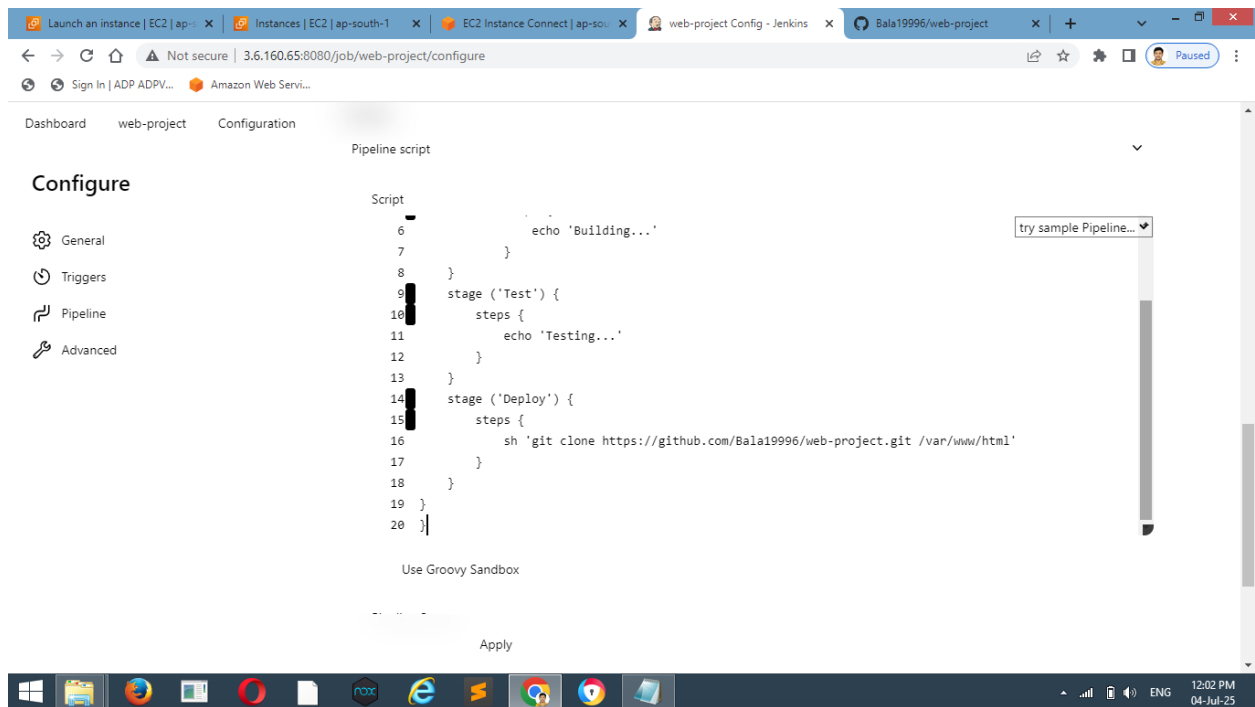


## STEP 17: CREATE THE PIPELINE SCRIPT AND BUILD IT



The screenshot shows the Jenkins 'Configure' page for a pipeline named 'web-project'. The 'Script' tab is selected, displaying a Groovy pipeline script. The script defines a pipeline with an agent 'any', followed by three stages: 'Build', 'Test', and 'Deploy'. The 'Build' stage has a step 'echo Building...'. The 'Test' stage has a step 'echo Testing...'. The 'Deploy' stage is currently empty. A 'try sample Pipeline...' button is visible on the right. The left sidebar shows navigation options: General, Triggers, Pipeline, and Advanced. The bottom status bar indicates the system time is 12:02 PM on 04-Jul-25.

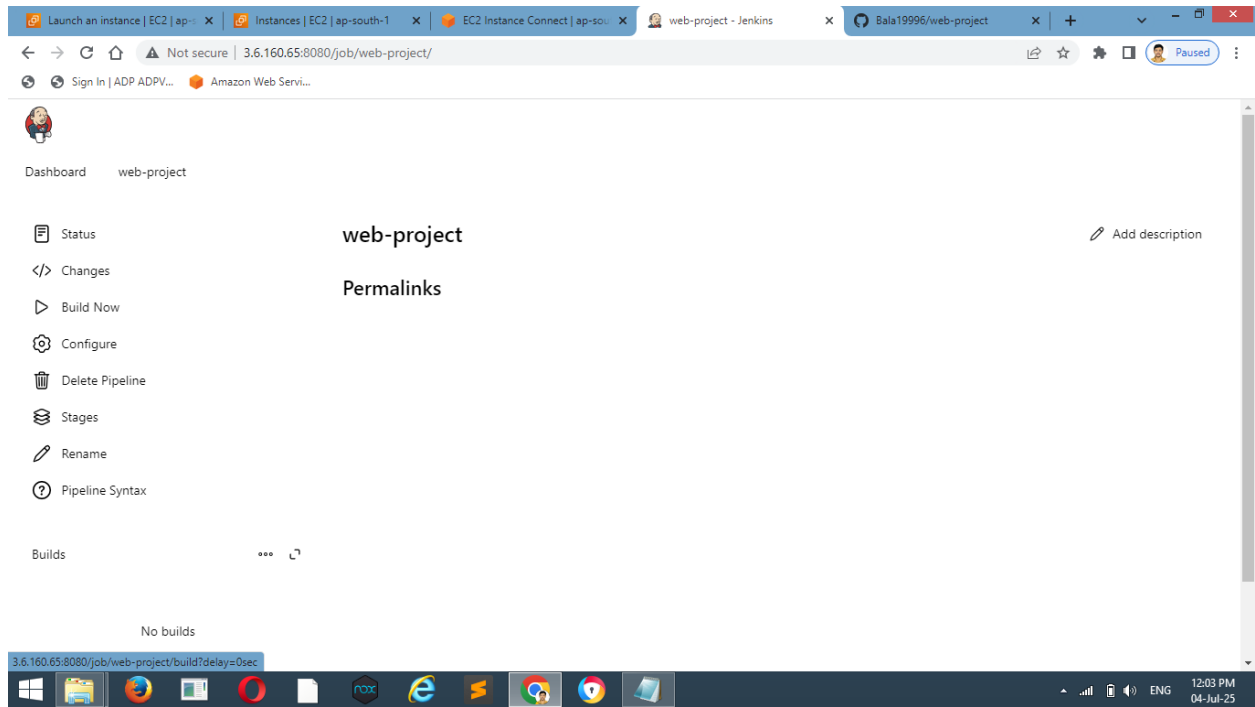
```
1 pipeline {
2   agent any
3   stages {
4     stage ('Build') {
5       steps {
6         echo 'Building...'
7       }
8     }
9     stage ('Test') {
10      steps {
11        echo 'Testing...'
12      }
13    }
14    stage ('Deploy') {
15      steps {
```



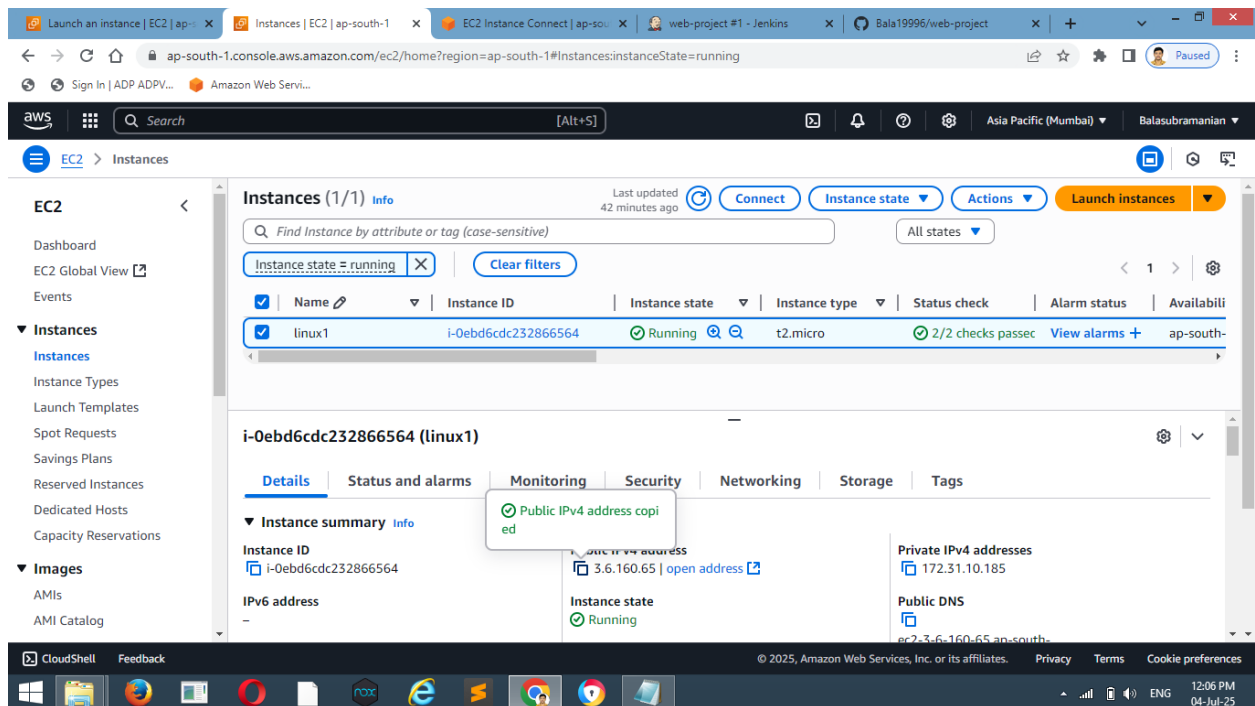
This screenshot shows the same Jenkins 'Configure' page, but the 'Script' tab now includes a 'git clone' step in the 'Deploy' stage. The script is updated as follows:

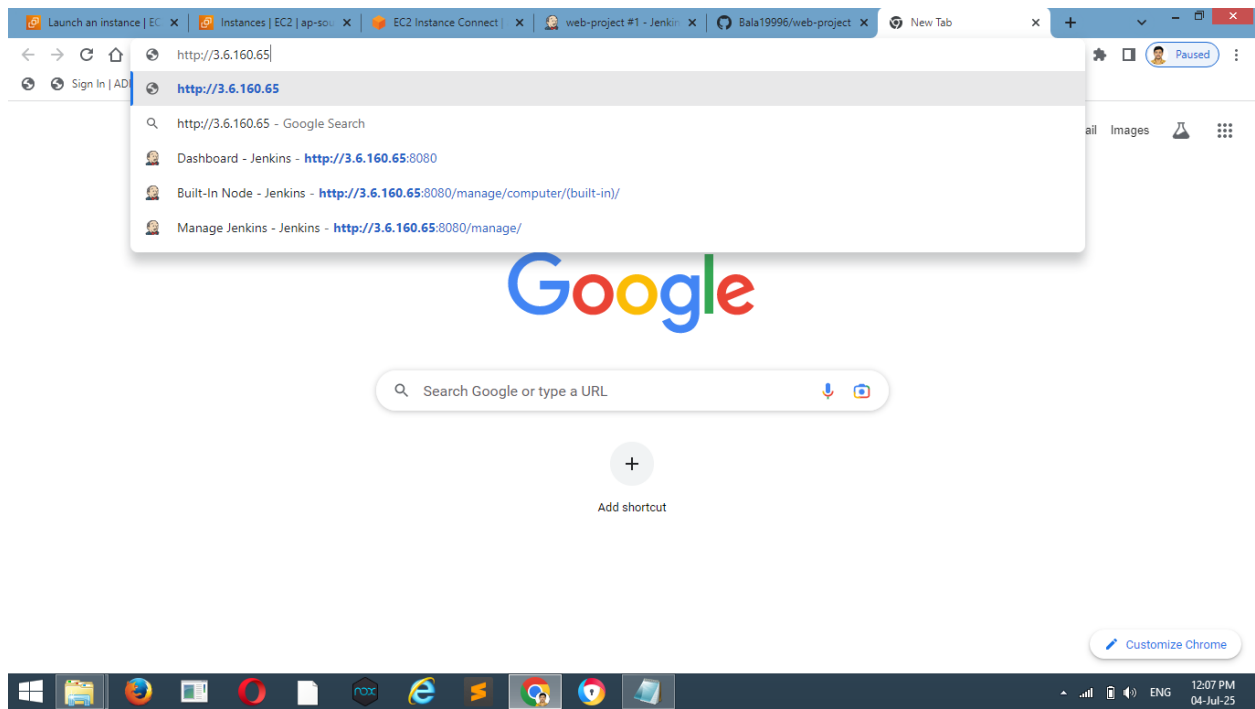
```
6         echo 'Building...'
7       }
8     }
9     stage ('Test') {
10      steps {
11        echo 'Testing...'
12      }
13    }
14    stage ('Deploy') {
15      steps {
16        sh 'git clone https://github.com/Bala19996/web-project.git /var/www/html'
17      }
18    }
19  }
20 }
```

The 'try sample Pipeline...' button remains on the right. The system time in the bottom status bar is still 12:02 PM on 04-Jul-25.



**STEP 18: COPY THE PUBLIC IP AND PASTE IT ON BROWSER AND FINALLY DEPLOYED SUCCESSFULLY**





**It works!**



