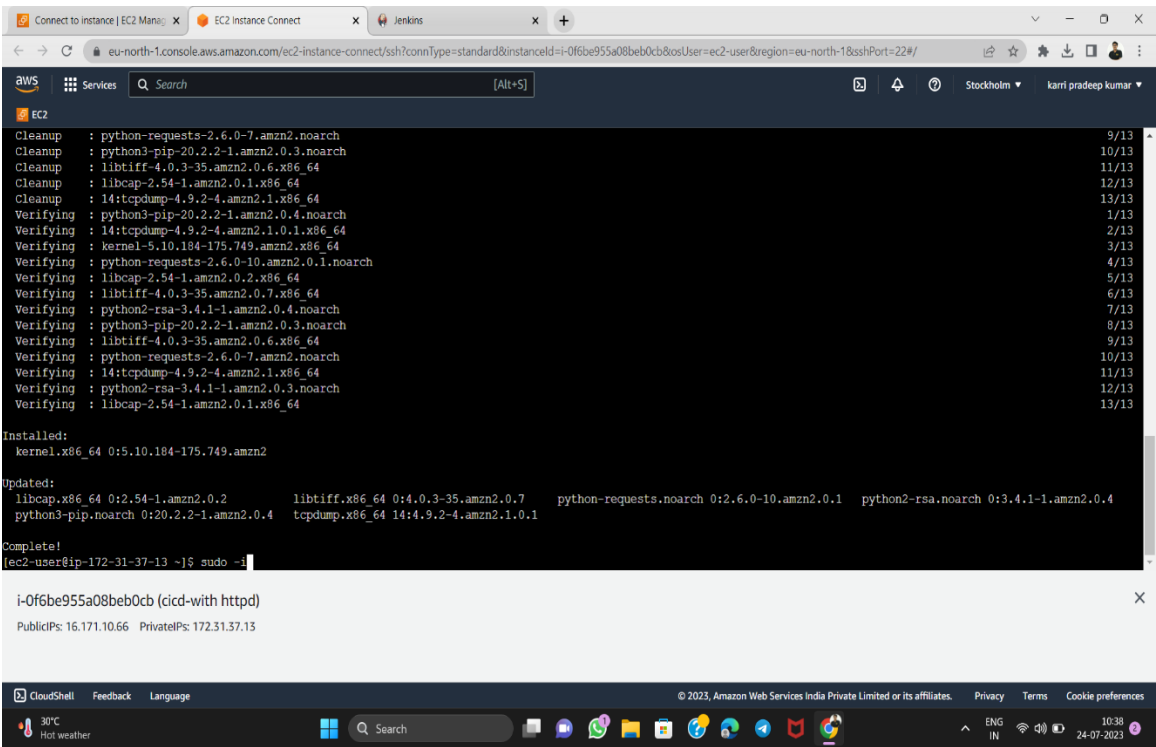
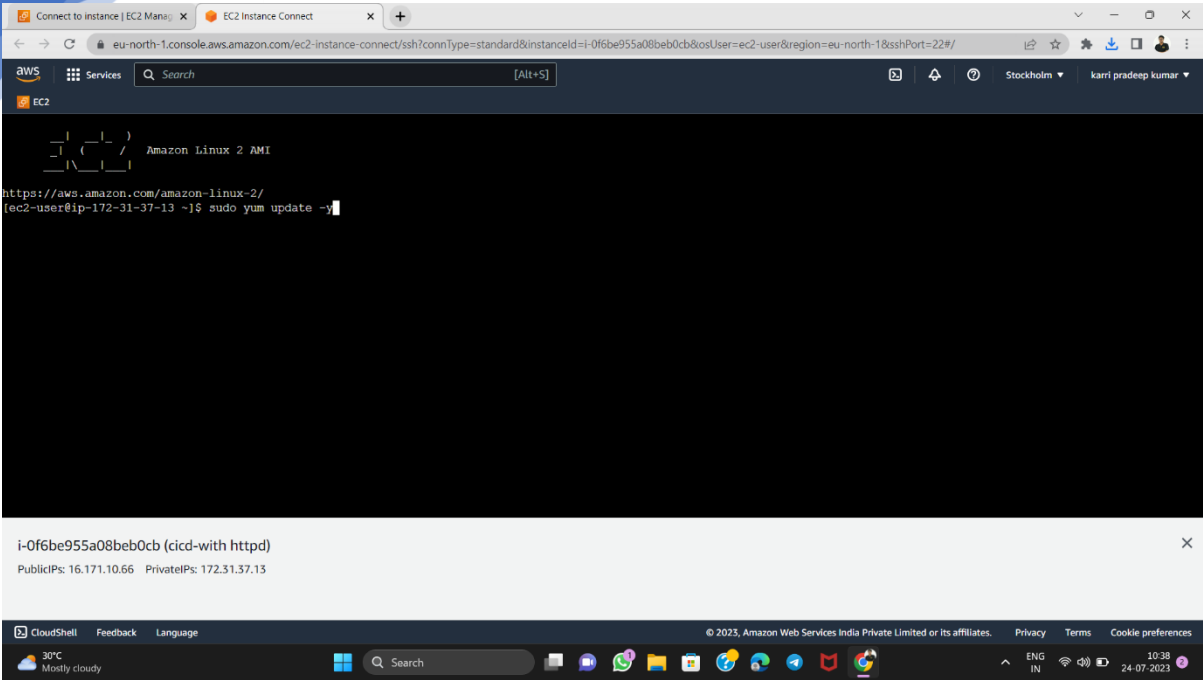




# CI-CD THROUGH JENKINS USING HTTPD

CREATE AN EC2 INSTANCE USING AMAZON LINUX OS BY ALLOWING ALL TRAFFIC AND ANYWHERE IN NETWORK

- ➔ Connect the instance
- ➔ Execute the following commands.
  - `sudo yum update`
  - `sudo -i` ( For switching into root user )
  - `sudo wget -O /etc/yum.repos.d/jenkins.repo \`  
<https://pkg.jenkins.io/redhat-stable/jenkins.repo>
  - `sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key`
  - `amazon-linux-extras install java-openjdk11`
  - `java --version`
  - `yum install jenkins -y`
  - `systemctl enable Jenkins`
  - `systemctl start Jenkins`
  - `systemctl status Jenkins`



The screenshot displays the AWS CloudShell interface with a terminal window open. The terminal shows the installation of Jenkins on an Amazon Linux 2 instance. The process includes verifying the installation of various packages, installing the Jenkins repository, and downloading the Jenkins war file. The terminal output is as follows:

```

Verifying : python-requests-2.6.0-7.amzn2.noarch 10/13
Verifying : 14:tcpdump-4.9.2-4.amzn2.1.x86_64 11/13
Verifying : python2-rsa-3.4.1-1.amzn2.0.3.noarch 12/13
Verifying : libcap-2.54-1.amzn2.0.1.x86_64 13/13

Installed:
  kernel.x86_64 0:5.10.184-175.749.amzn2

Updated:
  libcap.x86_64 0:2.54-1.amzn2.0.2      libtiff.x86_64 0:4.0.3-35.amzn2.0.7      python-requests.noarch 0:2.6.0-10.amzn2.0.1      python2-rsa.noarch 0:3.4.1-1.amzn2.0.4
  python3-pip.noarch 0:20.2.2-1.amzn2.0.4      tcpdump.x86_64 14:4.9.2-4.amzn2.1.0.1

Complete!
[ec2-user@ip-172-31-37-13 ~]$ sudo -i
[root@ip-172-31-37-13 ~]# sudo wget -O /etc/yum.repos.d/jenkins.repo \
> https://pkg.jenkins.io/redhat-stable/jenkins.repo
--2023-07-24 05:09:17-- https://pkg.jenkins.io/redhat-stable/jenkins.repo
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.86.133, 2a04:4e42:14::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)|151.101.86.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 85
Saving to: '/etc/yum.repos.d/jenkins.repo'

100%[=====] 85 --.-K/s in 0s

2023-07-24 05:09:17 (6.48 MB/s) - '/etc/yum.repos.d/jenkins.repo' saved [85/85]

[root@ip-172-31-37-13 ~]#

```

Below the terminal window, there is a summary box for the EC2 instance:

i-0f6be955a08beb0cb (cidr-with httpd)  
PublicIPs: 16.171.10.66 PrivateIPs: 172.31.37.13

The CloudShell interface also shows the AWS logo, a search bar, and a list of services. The terminal window is titled "Linux" and the CloudShell interface is titled "Connect to instance | EC2 Manager".

The screenshot displays the AWS CloudShell interface with a terminal window. The terminal shows the installation of Jenkins on an Amazon Linux 2 instance. The user runs the following commands:

```

[ec2-user@ip-172-31-37-13 ~]$ sudo -i
[root@ip-172-31-37-13 ~]# sudo wget -O /etc/yum.repos.d/jenkins.repo \
    https://pkg.jenkins.io/redhat-stable/jenkins.repo
--2023-07-24 05:09:17-- https://pkg.jenkins.io/redhat-stable/jenkins.repo
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.86.133, 2a04:4e42:14::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)[151.101.86.133]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 85
Saving to: '/etc/yum.repos.d/jenkins.repo'

100%[=====] 85 --.-K/s in 0s

2023-07-24 05:09:17 (6.48 MB/s) - '/etc/yum.repos.d/jenkins.repo' saved [85/85]

[root@ip-172-31-37-13 ~]# sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key
[root@ip-172-31-37-13 ~]# amazon-linux-extras install java-openjdk1
Topic java-openjdk1 is not found.
[root@ip-172-31-37-13 ~]# amazon-linux-extras install java-openjdk11

```

Below the terminal output, a summary window shows the installed packages and their sizes:

Package	Architecture	Version	Size
libSM	x86_64	1.2.2-2.amzn2.0.2	39 k
libX11	x86_64	1.6.7-3.amzn2.0.3	606 k
libX11-common	noarch	1.6.7-3.amzn2.0.3	165 k
libXau	x86_64	1.0.8-2.1.amzn2.0.2	29 k
libXext	x86_64	1.3.3-3.amzn2.0.2	39 k
libXi	x86_64	1.7.9-1.amzn2.0.2	41 k
libXrender	x86_64	0.9.10-1.amzn2.0.2	26 k
libXtst	x86_64	1.2.3-1.amzn2.0.2	20 k
libfontenc	x86_64	1.1.3-3.amzn2.0.2	31 k
libxch	x86_64	1.12-1.amzn2.0.2	216 k
libxslt	x86_64	1.1.28-6.amzn2	240 k
lksctp-tools	x86_64	1.0.17-2.amzn2.0.2	88 k
log4j-cve-2021-44228-hotpatch	noarch	1.3-7.amzn2	139 k
pcsc-lite-libs	x86_64	1.8.8-7.amzn2	35 k
python-javapackages	noarch	3.4.1-11.amzn2	31 k
python-lxml	x86_64	3.2.1-4.amzn2.0.4	1.0 M
ttmkfdir	x86_64	3.0.9-42.amzn2.0.2	50 k
tzdata-java	noarch	2023c-1.amzn2.0.1	185 k
xorg-x11-font-utils	x86_64	1:7.5-21.amzn2	103 k
xorg-x11-fonts-Type1	noarch	7.5-9.amzn2	521 k

Transaction Summary

```

Install 1 Package (+34 Dependent packages)

Total download size: 46 M
Installed size: 184 M
Is this ok [y/d/N]: y

```

The summary window also shows the instance ID: i-0f6be955a08beb0cb (cid-with httpd) and the public/private IP addresses: 16.171.10.66 and 172.31.37.13.

The screenshot displays a terminal window connected to an AWS EC2 instance via EC2 Instance Connect. The terminal shows the output of the command `yum install jenkins -y`. It lists available packages, resolves dependencies, and shows the installation progress for Jenkins 2.401.2-1.1. A WhatsApp notification is visible in the bottom right corner.

**Terminal Output:**

```
61 dnsmasq2.85          available  [=stable ]
62 kernel-5.15          available  [=stable ]
63 postgresql14         available  [=stable ]
64 firefox              available  [=stable ]
65 lustre                available  [=stable ]
66 php8.1               available  [=stable ]
67 awscli1              available  [=stable ]
68 php8.2               available  [=stable ]
69 dnsmasq              available  [=stable ]
70 unbound1.17          available  [=stable ]
71 golang1.19           available  [=stable ]
72 collectd-python3     available  [=stable ]
[root@ip-172-31-37-13 ~]# yum install jenkins -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package jenkins.noarch 0:2.401.2-1.1 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====================================================================================================================================
Package                               Arch             Version           Repository         Size
=====================================================================================================================================
Installing:
jenkins                               noarch            2.401.2-1.1       jenkins            94 M

Transaction Summary
-----
Install 1 Package

Total download size: 94 M
Installed size: 94 M
Downloading packages:
jenkins-2.401.2-1.1.noarch.rpm        | 94 MB  00:00:02
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : jenkins-2.401.2-1.1.noarch
  Verifying  : jenkins-2.401.2-1.1.noarch

Installed:
  jenkins.noarch 0:2.401.2-1.1

Complete!
[root@ip-172-31-37-13 ~]# systemctl enable jenkins
```

**WhatsApp Notification:**

BATCH - 1 PLACEMENT  
~lyf vll never be the same: minimum required value

The screenshot displays the AWS CloudShell interface with a terminal window showing the installation of Jenkins on an EC2 instance. The terminal output includes the following steps and results:

```
Total download size: 94 M
Installed size: 94 M
Downloading packages:
jenkins-2.401.2-1.1.noarch.rpm
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : jenkins-2.401.2-1.1.noarch
  Verifying   : jenkins-2.401.2-1.1.noarch
Installed:
jenkins.noarch 0:2.401.2-1.1

Complete!
[root@ip-172-31-37-13 ~]# systemctl enable jenkins
Created symlink from /etc/systemd/system/multi-user.target.wants/jenkins.service to /usr/lib/systemd/system/jenkins.service.
[root@ip-172-31-37-13 ~]# systemctl start jenkins
[root@ip-172-31-37-13 ~]# systemctl status jenkins
jenkins.service - Jenkins Continuous Integration Server
Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; vendor preset: disabled)
Active: active (running) since Mon 2023-07-24 05:15:28 UTC; 12s ago
Main PID: 7143 (java)
CGroup: /system.slice/jenkins.service
└─7143 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=%C/jenkins/war --httpPort=8080

Jul 24 05:14:47 ip-172-31-37-13.eu-north-1.compute.internal jenkins[7143]: 3e79c5b5bd13488e95c6a39cdc76201d
Jul 24 05:14:47 ip-172-31-37-13.eu-north-1.compute.internal jenkins[7143]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
```

Below the terminal output, the instance ID is shown as `i-0f6be955a08beb0cb` (created with `httpd`). The public IP is `16.171.10.66` and the private IP is `172.31.37.13`.

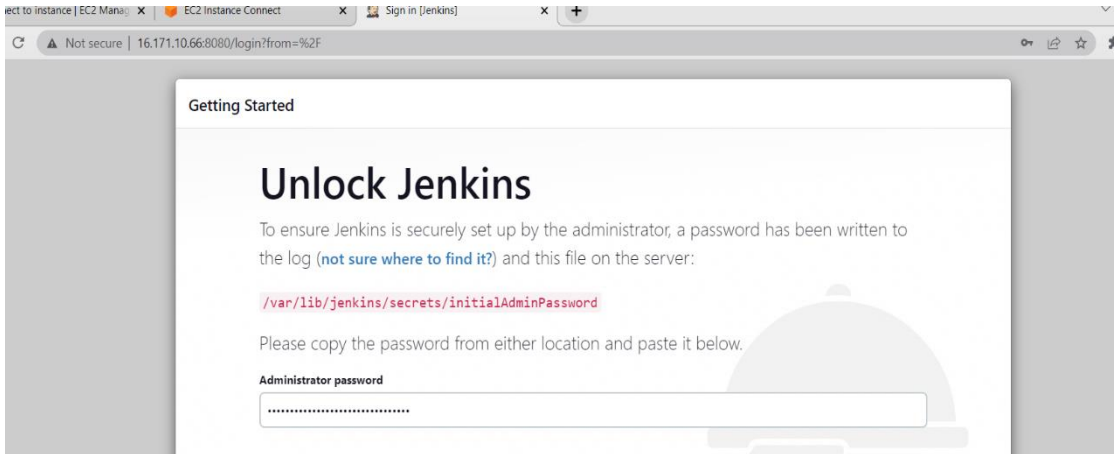
The interface also shows the AWS console header with the search bar and the user `karri pradeep kumar`. The bottom status bar indicates the time as 10:46 on 24-07-2023.



TO CONNECT THE JENKINS USE PUBLIC IP:8080

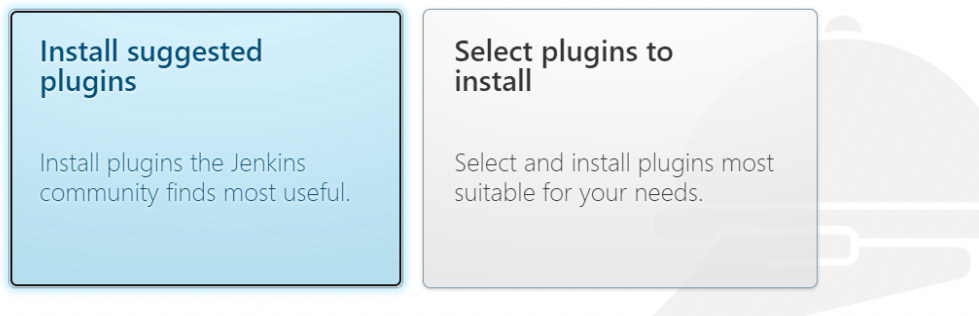
➤ For password

➤ `cat /var/lib/jenkins/secrets/initialAdminPassword`

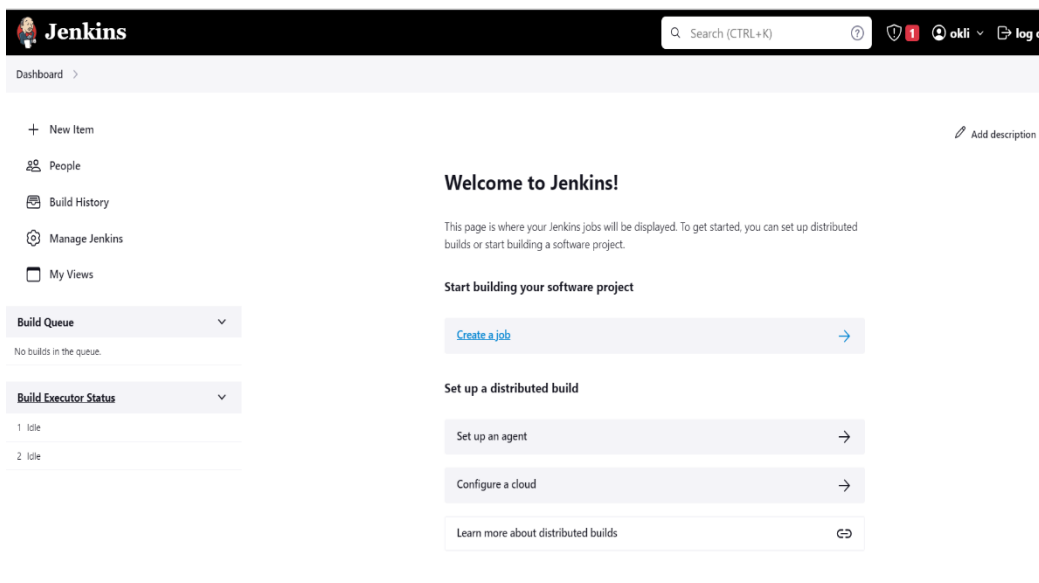


## INSTALL SUGGESTED PLUGINS Customize Jenkins

Plugins extend Jenkins with additional features to support many different needs.




## CREATE A JOB





## CREATE USING FREE STYLE PROJECT

*» Required field*

 **Freestyle project**  
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with used for something other than software build.

## GO BACK TO INSTANCE AGAIN AND INSTALL GIT AND HTTPD

- `yum install git -y`
- `yum install httpd -y`
- `systemctl enable httpd`
- `systemctl start httpd`
- `systemctl status httpd`

**\*\*\* make sure status is running**



☐ Discard old builds ?☒ GitHub project

Project url ?

Advanced ▾

☐ This project is parameterized ?☐ Throttle builds ?☐ Execute concurrent builds if necessary ?

Advanced ▾

## Source Code Management

☐ None☒ Git ?

Repositories ?

Repository URL ?

Credentials ?

Branches to build ?

Branch Specifier (blank for 'any') ?

Add Branch

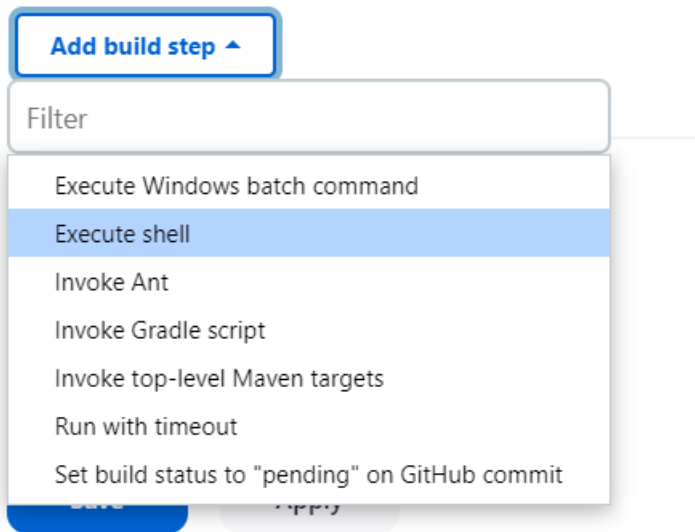
▶ Build Now

✓ #1

Jul 24, 2023, 5:24 AM

## AGAIN TO CONFIGURE

### Build Steps



See [the list of available environment variables](#)

```
sudo rm -rf /var/www/html/*
sudo cp /var/lib/jenkins/workspace/myjob/* /var/www/html/
```

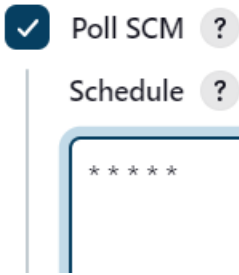
## MAKE A BUILD AGAIN

✓ #15

Jul 24, 2023, 5:48 AM



For auto build in the change in github using **POLL-SCM**

Again go to configure and make some additions



Build again once and see any errors

 Build Now



 #17  [Jul 24, 2023, 5:49 AM](#)

Before change in github the website looks :

i prefer bellmart its pure  
jaggery

In Soon

Lets make some change in git hub code the next build will perform automatically hence the CD performed here for CI.

 #17  [Jul 24, 2023, 5:49 AM](#)

The auto build is done after one minute because the poll scm is \* \* \* \* \* it means for change of the code in github after one minute it reflects to the website.

The change in website after auto bulid:

i prefer bellmart its pure  
jaggery

i also prefer bellmart its  
pure jaggery

---