1) create a user Jack with unilao password and find jack user from /etc/passwd file along with their UID and home directory. and assign sudo delegation for jack user. So, he can create a user with name Barbosa.

```
[root@ip-172-31-10-62 ~]# useradd Jack
[root@ip-172-31-10-62 ~]# passwd Jack
Changing password for user Jack.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
```

```
[root@ip-172-31-10-62 ~]# cat /etc/passwd | grep -i Jack

Jack:x:1001:1001::/home/Jack:/bin/bash
```

```
[root@ip-172-31-10-62 -]# whereis useradd
useradd: /usr/sbin/useradd /usr/share/man/man8/useradd.8.gz
[root@ip-172-31-10-62 -]# whereis passwd
passwd: /usr/shin/passwd /etc/passwd /usr/share/man/man1/passwd.lossl.gz /usr/share/man/man1/passwd.1.gz /usr/share/man/man5/passwd.5.
gz
[root@ip-172-31-10-62 -]# vim /etc/sudoers
[root@ip-172-31-10-62 -]# su - Jack
[Jack@ip-172-31-10-62 -]$ sudo useradd Barbosa

We trust you have received the usual lecture from the local System
Administrator. It usually boils down to these three things:

#1) Respect the privacy of others.
#2) Think before you type.
#3) With great power comes great responsibility.

For security reasons, the password you type will not be visible.
[sudo] password for Jack:
```

```
[Jack@ip-172-31-10-62 ~]$ cat /etc/passwd | grep -i Barbosa

Barbosa:x:1002:1002::/home/Barbosa:/bin/bash

[Jack@ip-172-31-10-62 ~]$ ~
```

2) For an existing project on GitHub, create a Jenkins project. This project should be triggered automatically whenever there is any change in any of the file in GitHub repository. Also make sure that the artifacts should be built and saved in the pipeline.

I have set our hostname as jenkins-server.example.com

And this is the installation process of jenkins

```
[root@ip-172-31-10-62 ~]# hostnamectl set-hostname jenkins-server.example.com
[root@ip-172-31-10-62 ~]# bash
[root@jenkins-server ~]# hostname
jenkins-server ~]# hostname
jenkins-server ~]# yum update -y
Amazon Linux 2023 Kernel Livepatch repository
Dependencies resolved.
Nothing to do.
Complete!
[root@jenkins-server ~]# yum install wget -y
Last metadata expiration check: 0:01:26 ago on Sat Sep 27 10:57:08 2025.
Package wget-1.21.3-1.amzn2023.0.4.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
```

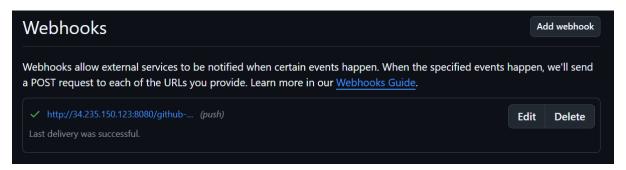
```
Installed:
   jenkins-2.516.3-1.1.noarch
Complete!
```

Finally Jenkins is installed.

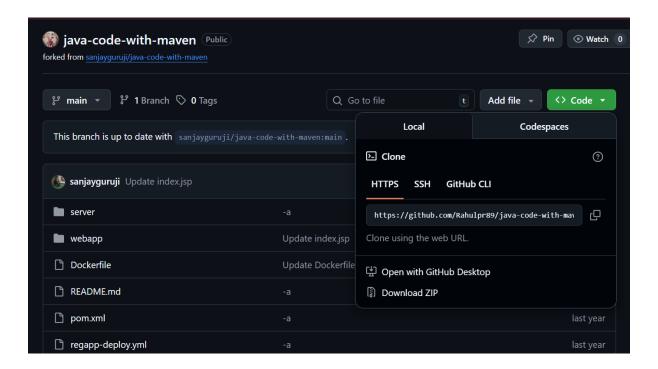
And after setting the Jenkins its set to open

## 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 Continue

Webhook is created in github after generating token from jenkins



Copy the link of git repository





```
project/server/1.0-SNAPSHOT/server-1.0-SNAPSHOT.jar
[JENKINS] Archiving /var/lib/jenkins/workspace/java-pro
project/1.0-SNAPSHOT/maven-project-1.0-SNAPSHOT.pom
channel stopped
Finished: SUCCESS
```

This is the final output

This ensures that build is automated

## **Triggers**

Set up automated actions that start your build based on specific events, like code changes or scheduled times. Build whenever a SNAPSHOT dependency is built ? Trigger builds remotely (e.g., from scripts) ? Build after other projects are built ? Build periodically ? GitHub Branches GitHub Pull Requests ? GitHub hook trigger for GITScm polling ? Poll SCM ?  $\operatorname{\mathscr{O}}$  Add description All S W Last Failure Name ↓ Last Success Last Duration  $\odot$ java-project 8 min 43 sec #2 10 min #1 23 sec java-project Add description **Test Result Trend** → Passed → Skipped → Failed Latest Test Result (no failures) (g) **Permalinks** • Last build (#2), 9 min 3 sec ago • Last stable build (#2), 9 min 3 sec ago • Last successful build (#2), 9 min 3 sec ago • Last failed build (#1), 11 min ago #2 • Last unsuccessful build (#1), 11 min ago • Last completed build (#2), 9 min 3 sec ago