

JENKINS

Installation of jenkins on EC2 (t3.micro) having Amazon Linux2

1. Launch instance EC2 with **t3.micro**, **AMI** amazon linux2, take default VPC, **configure storage 1x20 Gib** and Launch and Login to EC2
2. We can Download repo from below website, or go to step 3
(<https://www.jenkins.io/doc/book/installing/linux/#red-hat-centos>)
3. `sudo wget -O /etc/yum.repos.d/jenkins.repo \`
`https://pkg.jenkins.io/redhat/jenkins.repo`
4. `sudo rpm --import https://pkg.jenkins.io/redhat/jenkins.io-2023.key`
5. `sudo yum upgrade`
6. `sudo dnf install -y java-17-amazon-corretto`
7. `sudo yum install -y jenkins`

```
opensdk-01-01c-server-v1m-corretto-17-0-120-0-1 (java-17-0-120-0-1, mixed mod
[root@ip-172-31-42-25 ~]# sudo yum install jenkins
Last metadata expiration check: 0:04:27 ago on Sat Aug 23 16:39:30 2025.
Dependencies resolved.
=====
Package                Architecture    Version          Repository        Size
=====
Installing:
jenkins                noarch          2.524-1.1        jenkins           91 M
=====
Transaction Summary
=====
Install 1 Package

Total download size: 91 M
Installed size: 91 M
Is this ok [y/N]: y
Downloading Packages:
jenkins-2.524-1.1.noarch.rpm                24 MB/s | 91 MB    00:03
-----
Total                                         24 MB/s | 91 MB    00:03
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing                :                               1/1
  Running scriptlet: jenkins-2.524-1.1.noarch             1/1
  Installing             : jenkins-2.524-1.1.noarch       1/1
  Running scriptlet: jenkins-2.524-1.1.noarch             1/1
  Verifying               : jenkins-2.524-1.1.noarch       1/1

Installed:
jenkins-2.524-1.1.noarch

Complete!
[root@ip-172-31-42-25 ~]# |
```

- 8.
9. `sudo systemctl enable jenkins`
10. `sudo systemctl start jenkins`

11. `sudo systemctl status jenkins`

```
[root@ip-172-31-42-25 ~]# sudo systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; prese>
   Active: active (running) since Sat 2025-08-23 16:46:44 UTC; 8s ago
     Main PID: 30206 (java)
        Tasks: 46 (limit: 1119)
      Memory: 368.7M
         CPU: 17.212s
       CGroup: /system.slice/jenkins.service
               └─30206 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/>

Aug 23 16:46:38 ip-172-31-42-25.ec2.internal jenkins[30206]: This may also b>
Aug 23 16:46:38 ip-172-31-42-25.ec2.internal jenkins[30206]: *****>
Aug 23 16:46:38 ip-172-31-42-25.ec2.internal jenkins[30206]: *****>
Aug 23 16:46:38 ip-172-31-42-25.ec2.internal jenkins[30206]: *****>
Aug 23 16:46:44 ip-172-31-42-25.ec2.internal jenkins[30206]: 2025-08-23 16:4>
Aug 23 16:46:44 ip-172-31-42-25.ec2.internal jenkins[30206]: 2025-08-23 16:4>
Aug 23 16:46:44 ip-172-31-42-25.ec2.internal systemd[1]: Started jenkins.ser>
Aug 23 16:46:44 ip-172-31-42-25.ec2.internal jenkins[30206]: 2025-08-23 16:4>
Aug 23 16:46:44 ip-172-31-42-25.ec2.internal jenkins[30206]: 2025-08-23 16:4>
Aug 23 16:46:49 ip-172-31-42-25.ec2.internal jenkins[30206]: 2025-08-23 16:4>
lines 1-20/20 (END)
```

- 12.

13. `Cd /var/lib/jenkins` (default locations of jenkins files)

```
[root@ip-172-31-42-25 ~]# cd /var/lib/jenkins
[root@ip-172-31-42-25 jenkins]# ll
total 20
-rw-r--r--. 1 jenkins jenkins 1658 Aug 23 16:46 config.xml
-rw-r--r--. 1 jenkins jenkins 156 Aug 23 16:46 hudson.model.UpdateCenter.xml
-rw-r--r--. 1 jenkins jenkins 171 Aug 23 16:46 jenkins.telemetry.Correlator.
xml
drwxr-xr-x. 2 jenkins jenkins 6 Aug 23 16:46 jobs
-rw-r--r--. 1 jenkins jenkins 1037 Aug 23 16:46 nodeMonitors.xml
drwxr-xr-x. 2 jenkins jenkins 6 Aug 23 16:46 plugins
-rw-r--r--. 1 jenkins jenkins 64 Aug 23 16:46 secret.key
-rw-r--r--. 1 jenkins jenkins 0 Aug 23 16:46 secret.key.not-so-secret
drwx-----. 2 jenkins jenkins 125 Aug 23 16:46 secrets
drwxr-xr-x. 2 jenkins jenkins 67 Aug 23 16:46 updates
drwxr-xr-x. 2 jenkins jenkins 24 Aug 23 16:46 userContent
drwxr-xr-x. 3 jenkins jenkins 84 Aug 23 16:46 users
[root@ip-172-31-42-25 jenkins]# |
```

- 14.

15. Now open tab in browser with public ip of ec2

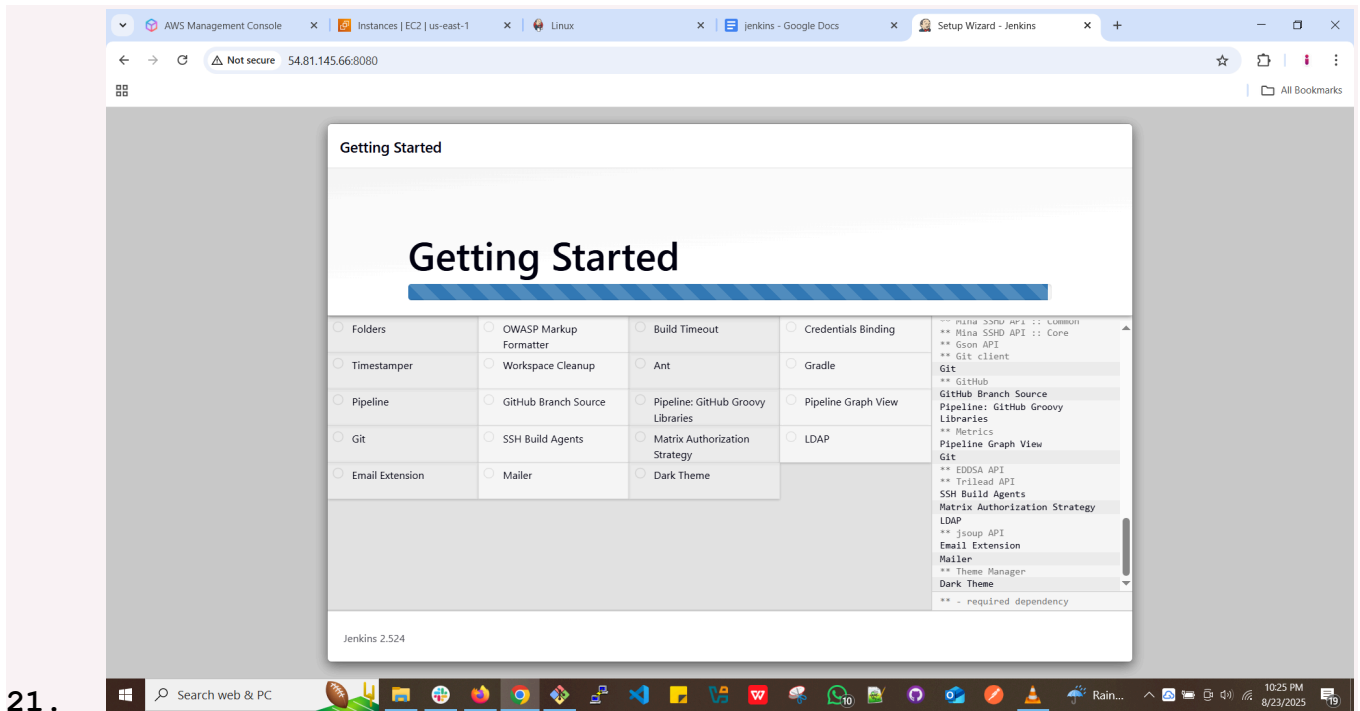
16. **public-ip:8080**

17. Bring the password from ec2 from below location

18. **cat /var/lib/jenkins/secrets/initialAdminPassword**

19. Now cat the password and put in webpage of jenkins then
select install suggested plugins and create user.

20. **Cat initialAdminPassword**



21.

22. Create user or skip and continue as admin.

Getting Started

Create First Admin User

Username

Password

Confirm password

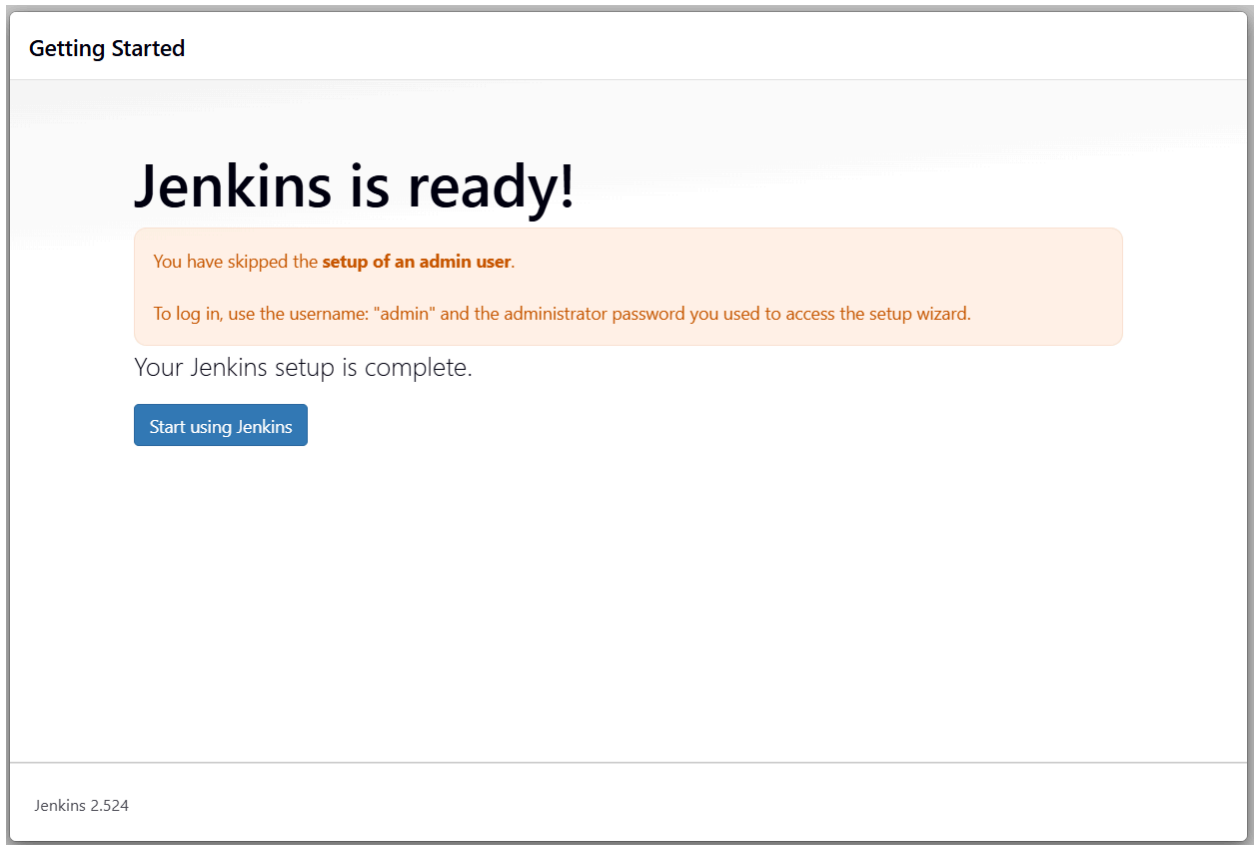
Full name

E-mail address

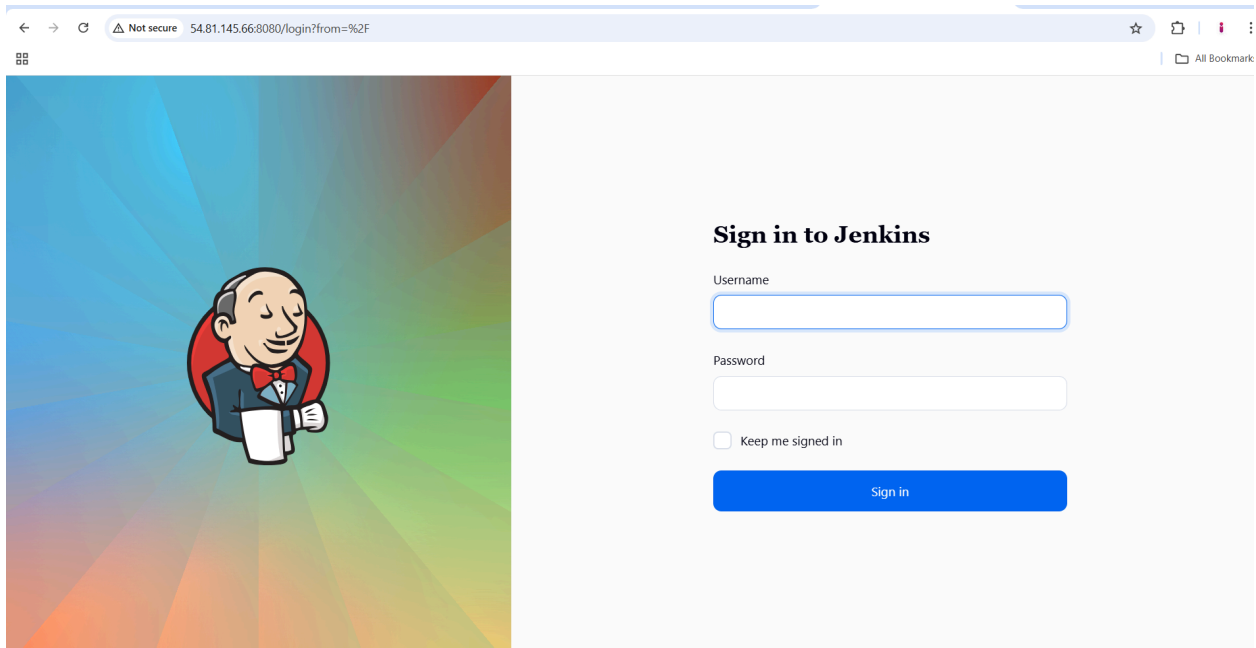
Jenkins 2.524

[Skip and continue as admin](#) [Save and Continue](#)

23.




24.



25.

26. You can change password from home page in admin profile logo → security → and enter new password

27.

 Jenkins

admin / Security

admin

Profile

Builds

My Views

Account

Appearance

Preferences

Security


Experiments

Credentials

Security

API Token

Current token(s) ?


No API tokens configured
Add new token

Password

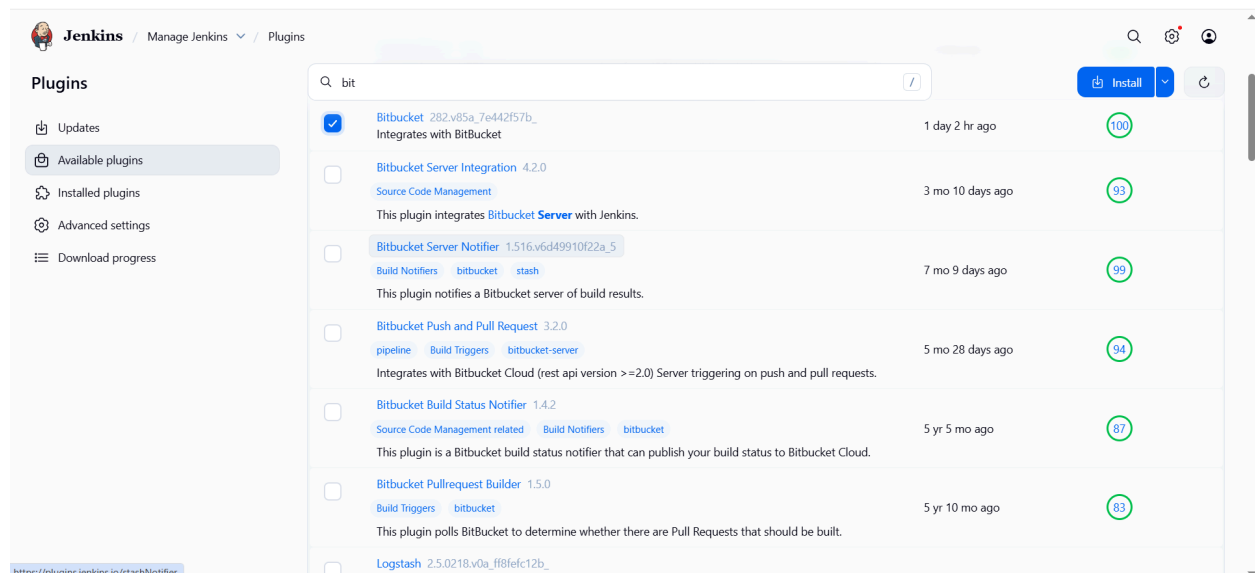
Password:

Save

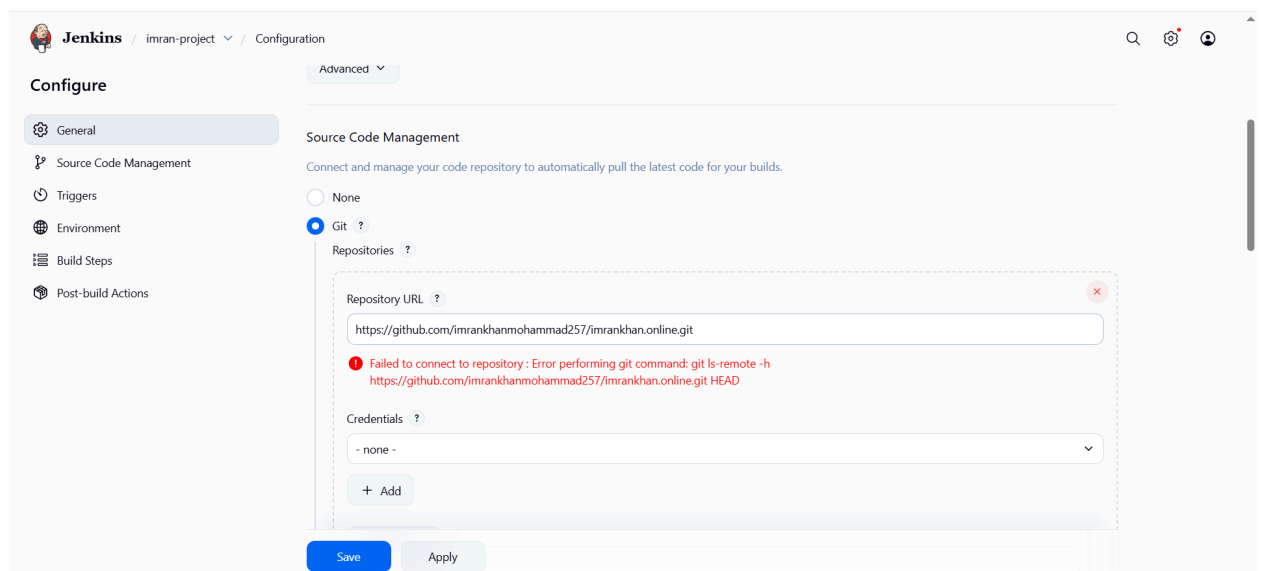
Apply

CREATING JOB

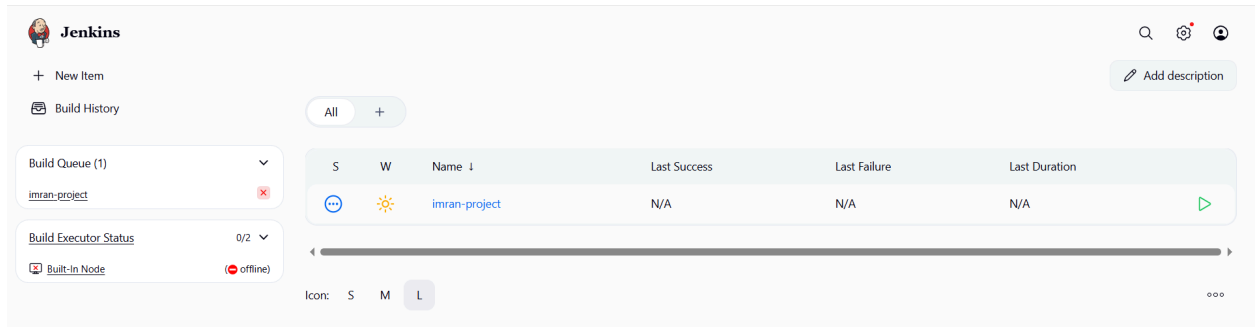
Installing new plug in “bitbucket” go to manage jenkins(settings icon) → plugins → available plugins → enter bitbucket



1. Now creating first job from jenkins home page → create a job.
2. Enter job name and select git in source code management → enter git repository url and save.
3. Add **your** any github repository
<https://github.com/imrankhanmohammad257/imrankhan.online>
4. You can check here failed to connect.(need to install git in your EC2)



- 5.
6. In home page you can see your project.



7.

8. You can check in EC2 , you will find your project,

cd /var/lib/jenkins

ll

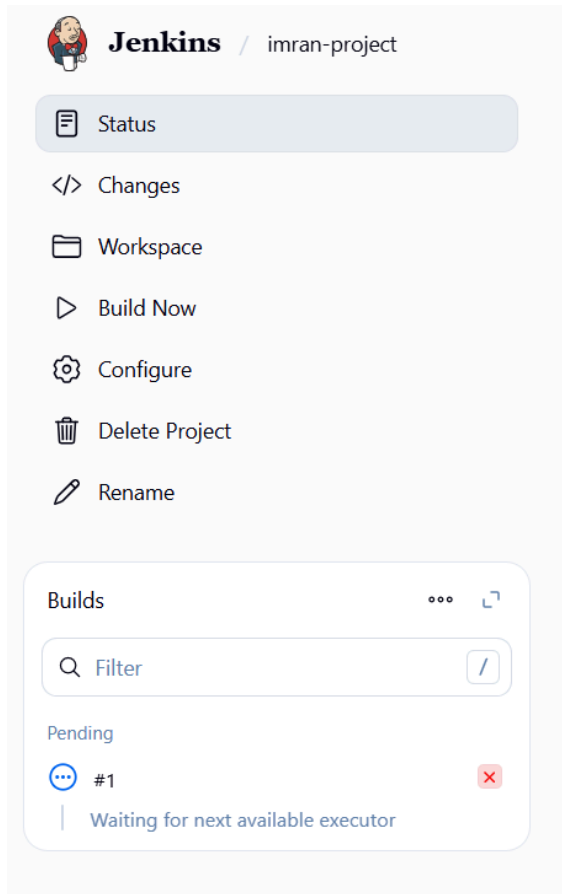
Cd jobs

ll

```
[ec2-user@ip-172-31-42-25 ~]$ cd /var/lib/jenkins
[ec2-user@ip-172-31-42-25 jenkins]$ ll
total 84
-rw-r--r--. 1 jenkins jenkins 2259 Aug 23 18:08 config.xml
-rw-r--r--. 1 jenkins jenkins 156 Aug 23 18:08 hudson.model.UpdateCenter.xml
-rw-r--r--. 1 jenkins jenkins 1267 Aug 23 17:13 hudson.plugins.emailext.ExtendedEmailPublisher.xml
-rw-r--r--. 1 jenkins jenkins 370 Aug 23 16:55 hudson.plugins.git.GitTool.xml
-rw-----. 1 jenkins jenkins 1680 Aug 23 16:55 identity.key.enc
-rw-r--r--. 1 jenkins jenkins 5 Aug 23 18:08 jenkins.install.InstallUtil.lastExecVersion
-rw-r--r--. 1 jenkins jenkins 5 Aug 23 16:59 jenkins.install.UpgradeWizard.state
-rw-r--r--. 1 jenkins jenkins 182 Aug 23 16:58 jenkins.model.JenkinsLocationConfiguration.xml
-rw-r--r--. 1 jenkins jenkins 171 Aug 23 16:46 jenkins.telemetry.Correlator.xml
drwxr-xr-x. 3 jenkins jenkins 27 Aug 23 18:05 jobs
drwxr-xr-x. 2 jenkins jenkins 32 Aug 23 16:56 logs
-rw-r--r--. 1 jenkins jenkins 1037 Aug 23 18:08 nodeMonitors.xml
drwxr-xr-x. 92 jenkins jenkins 16384 Aug 23 18:07 plugins
-rw-r--r--. 1 jenkins jenkins 258 Aug 23 18:12 queue.xml
-rw-r--r--. 1 jenkins jenkins 258 Aug 23 18:08 queue.xml.bak
-rw-r--r--. 1 jenkins jenkins 64 Aug 23 16:46 secret.key
-rw-r--r--. 1 jenkins jenkins 0 Aug 23 16:46 secret.key.not-so-secret
drwx-----. 2 jenkins jenkins 16384 Aug 23 18:12 secrets
drwxr-xr-x. 2 jenkins jenkins 149 Aug 23 16:55 updates
drwxr-xr-x. 2 jenkins jenkins 24 Aug 23 16:46 userContent
drwxr-xr-x. 3 jenkins jenkins 84 Aug 23 16:46 users
[ec2-user@ip-172-31-42-25 jenkins]$ cd jobs
[ec2-user@ip-172-31-42-25 jobs]$ ll
total 0
drwxr-xr-x. 3 jenkins jenkins 38 Aug 23 18:14 imran-project
[ec2-user@ip-172-31-42-25 jobs]$
```

9.

10. Try to build the project click on **build now**, you can see its in waiting state so need to install git in your ec2



11.

12. Need to install git in your EC2

13. **sudo dnf install -y git**

```
Complete!  
[root@ip-172-31-34-155 ~]# git --version  
git version 2.50.1  
[root@ip-172-31-34-155 ~]#
```

14.

15. Then restart jenkins

16. **sudo systemctl restart jenkins**

17. Then come to your project and again build and check. If again showing waiting then check your git repo is main or master.

The screenshot shows the Jenkins web interface for a build named 'imran-project' with build number '#3'. The 'Console Output' tab is selected, displaying a series of Git commands and their outputs. The build fails with the error: 'ERROR: Couldn't find any revision to build. Verify the repository and branch configuration for this job.' The final status is 'Finished: FAILURE'.

```
Started by user admin
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/imran-project
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/imran-project/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/imrankhanmohammad257/imrankhan.online.git # timeout=10
Fetching upstream changes from https://github.com/imrankhanmohammad257/imrankhan.online.git
> git --version # timeout=10
> git --version # 'git version 2.50.1'
> git fetch --tags --force --progress -- https://github.com/imrankhanmohammad257/imrankhan.online.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/master^{commit} # timeout=10
> git rev-parse origin/master^{commit} # timeout=10
ERROR: Couldn't find any revision to build. Verify the repository and branch configuration for this job.
Finished: FAILURE
```

18.

19. Go to Jenkins → your-project → **Configure** → **Source Code Management** → **Branches to build**

20. Change **master** → **main** (or the correct branch name from GitHub).

The screenshot shows the Jenkins web interface for a build named 'imran-project' with build number '#4'. The 'Console Output' tab is selected, displaying a series of Git commands and their outputs. The build is successful, with the final status being 'Finished: SUCCESS'.

```
Started by user admin
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/imran-project
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/imran-project/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/imrankhanmohammad257/imrankhan.online.git # timeout=10
Fetching upstream changes from https://github.com/imrankhanmohammad257/imrankhan.online.git
> git --version # timeout=10
> git --version # 'git version 2.50.1'
> git fetch --tags --force --progress -- https://github.com/imrankhanmohammad257/imrankhan.online.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 42a6074738f34e02b71d8124176c74caf9ce06d (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 42a6074738f34e02b71d8124176c74caf9ce06d # timeout=10
Commit message: "Update index.html"
First time build. Skipping changelog.
Finished: SUCCESS
```

21.

22. Now build is successful.

23. Now in ec2 cli you can check the workspace created for imran-project and have some files.

24. Cd /var/lib/jenkins/jobs

25. Run ll you find your project and you get your project files index.html..etc.

26. Cd imran-projects

27. ll

```

r.xml
drwxr-xr-x. 3 jenkins jenkins 27 Aug 23 18:05 jobs
drwxr-xr-x. 2 jenkins jenkins 32 Aug 23 16:56 logs
-rw-r--r--. 1 jenkins jenkins 1037 Aug 23 19:02 nodeMonitors.xml
drwxr-xr-x. 92 jenkins jenkins 16384 Aug 23 18:07 plugins
-rw-r--r--. 1 jenkins jenkins 258 Aug 23 19:10 queue.xml
-rw-r--r--. 1 jenkins jenkins 973 Aug 23 19:02 queue.xml.bak
-rw-r--r--. 1 jenkins jenkins 64 Aug 23 16:46 secret.key
-rw-r--r--. 1 jenkins jenkins 0 Aug 23 16:46 secret.key.not-so-secret
drwx----- 2 jenkins jenkins 16384 Aug 23 19:03 secrets
drwxr-xr-x. 3 jenkins jenkins 102 Aug 23 19:02 tmp
drwxr-xr-x. 2 jenkins jenkins 149 Aug 23 16:55 updates
drwxr-xr-x. 2 jenkins jenkins 24 Aug 23 16:46 userContent
drwxr-xr-x. 3 jenkins jenkins 84 Aug 23 16:46 users
drwxr-xr-x. 3 jenkins jenkins 27 Aug 23 19:02 workspace
[root@ip-172-31-42-25 jenkins]# cd workspace
[root@ip-172-31-42-25 workspace]# ll
total 0
drwxr-xr-x. 3 jenkins jenkins 126 Aug 23 19:09 imran-project
[root@ip-172-31-42-25 workspace]# cd imran-project
[root@ip-172-31-42-25 imran-project]# ll
total 24
-rw-r--r--. 1 jenkins jenkins 16 Aug 23 19:09 CNAME
-rw-r--r--. 1 jenkins jenkins 39 Aug 23 19:09 error.html
-rw-r--r--. 1 jenkins jenkins 1678 Aug 23 19:09 first_server1.pem
-rw-r--r--. 1 jenkins jenkins 3737 Aug 23 19:09 index.html
-rw-r--r--. 1 jenkins jenkins 609 Aug 23 19:09 script.js
-rw-r--r--. 1 jenkins jenkins 3202 Aug 23 19:09 style.css
[root@ip-172-31-42-25 imran-project]# |

```

28.