

Que) We have Jenkin master and slave connection and take repo from github and build it and make war file on slave.



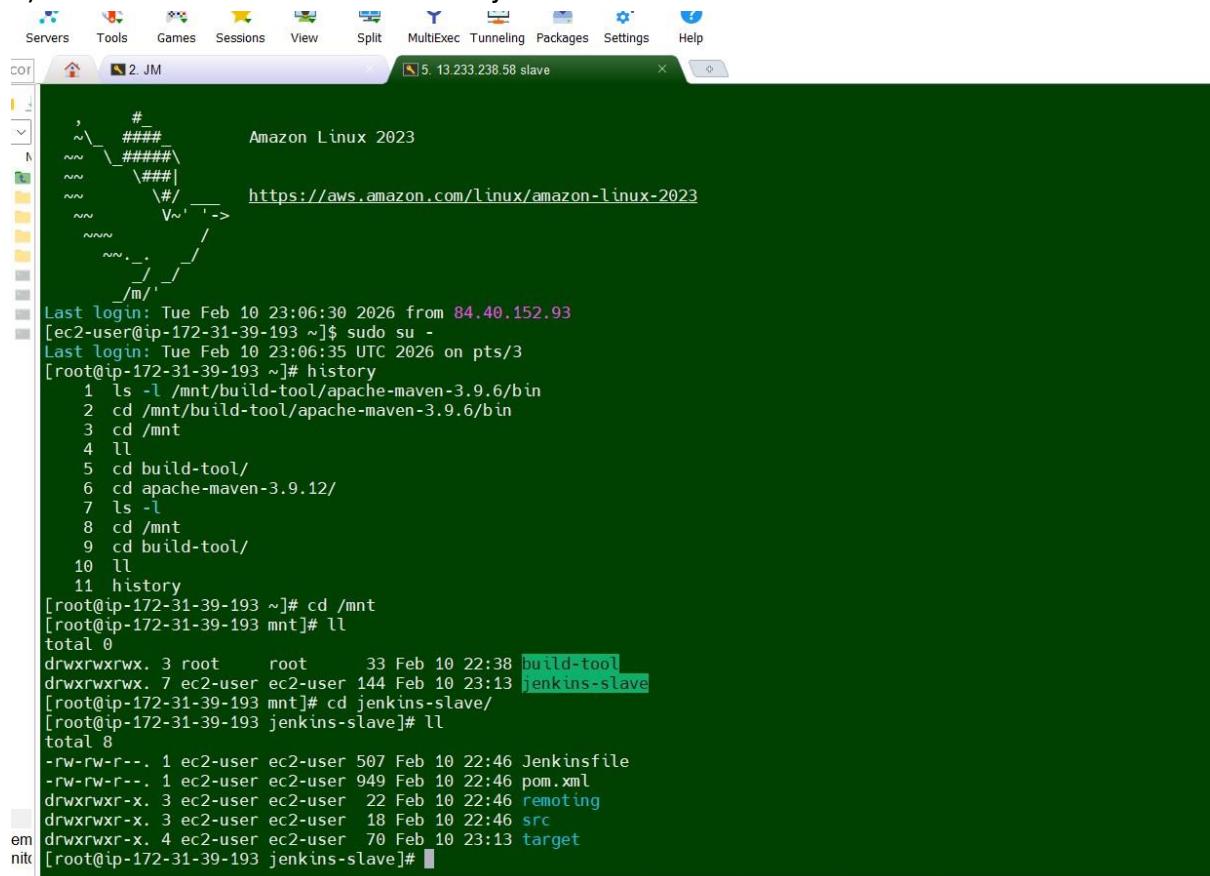
1)ec2 inst (JM) launch login into it install java17 . and tomcat run and start Jenkins URL

The screenshot shows a terminal session on an Amazon Linux 2023 slave instance. The terminal window has a blue header bar with various icons and tabs. The main area displays a command-line history of actions taken by the user:

```
'`#`###`      Amazon Linux 2023
~~\_\####\` 
~~ \###` 
~~ \#/ `--> https://aws.amazon.com/linux/amazon-linux-2023
~~ \~` /` 
~~ \_` /` 
~~ \_` /` 
/m/'` 

Last login: Tue Feb 10 22:42:49 2026 from 84.40.152.93
[ec2-user@ip-172-31-47-48 ~]$ sudo su -
Last login: Tue Feb 10 22:42:54 UTC 2026 on pts/5
[root@ip-172-31-47-48 ~]# sudo su -
Last login: Tue Feb 10 23:07:00 UTC 2026 on pts/7
[root@ip-172-31-47-48 ~]# history
 1  yum install java-17-amazon-corretto.x86_64 -y
 2  cd /mnt
 3  mkdir servers
 4  cd servers/
 5  wget https://dlcdn.apache.org/tomcat/tomcat-10/v10.1.52/bin/apache-tomcat-1
0.1.52.zip
 6  ll
 7  unzip apache-tomcat-10.1.52.zip
 8  ll
 9  rm -rf apache-tomcat-10.1.52.zip
10  ll
11  chmod -R 777 apache-tomcat-10.1.52
12  cd webapps
13  cd apache-tomcat-10.1.52/
14  ll
15  cd webapps/
16  wget https://get.jenkins.io/war-stable/2.541.1/jenkins.war
17  cd ..
18  ll
19  cd bin
20  ./startup.sh
21  cat /root/.jenkins/secrets/initialAdminPassword
22  history
Remonit[root@ip-172-31-47-48 ~]#
```

2) launch 2nd machine as slave install java 17 and maven



```
,      #
~\_\### Amazon Linux 2023
~~\_\###\
~~ \### https://aws.amazon.com/linux/amazon-linux-2023
~~ \#/ \~`-->
~~ \~`-->
~~ \~`-->
~~ \~`-->
~~ \~`-->
Last login: Tue Feb 10 23:06:30 2026 from 84.40.152.93
[ec2-user@ip-172-31-39-193 ~]$ sudo su -
Last login: Tue Feb 10 23:06:35 UTC 2026 on pts/3
[root@ip-172-31-39-193 ~]# history
 1 ls -l /mnt/build-tool/apache-maven-3.9.6/bin
 2 cd /mnt/build-tool/apache-maven-3.9.6/bin
 3 cd /mnt
 4 ll
 5 cd build-tool/
 6 cd apache-maven-3.9.12/
 7 ls -l
 8 cd /mnt
 9 cd build-tool/
10 ll
11 history
[root@ip-172-31-39-193 ~]# cd /mnt
[root@ip-172-31-39-193 mnt]# ll
total 0
drwxrwxrwx. 3 root      root      33 Feb 10 22:38 build-tool
drwxrwxrwx. 7 ec2-user  ec2-user  144 Feb 10 23:13 jenkins-slave
[root@ip-172-31-39-193 mnt]# cd jenkins-slave/
[root@ip-172-31-39-193 jenkins-slave]# ll
total 8
-rw-rw-r--. 1 ec2-user ec2-user 507 Feb 10 22:46 Jenkinsfile
-rw-rw-r--. 1 ec2-user ec2-user 949 Feb 10 22:46 pom.xml
drwxrwxr-x. 3 ec2-user ec2-user   22 Feb 10 22:46 remoting
drwxrwxr-x. 3 ec2-user ec2-user  18 Feb 10 22:46 src
drwxrwxr-x. 4 ec2-user ec2-user  70 Feb 10 23:13 target
[root@ip-172-31-39-193 jenkins-slave]#
```

3) Make slave connection



Jenkins / Manage Jenkins / Nodes

Nodes

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

S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	5.68 GiB	0 B	5.68 GiB	0ms
	slave	Linux (amd64)	In sync	5.99 GiB	0 B	458.26 MiB	17ms
	Data obtained	55 min	55 min	55 min	55 min	55 min	55 min

Icon: S M L Legend

4) Maven 3.9.12 installation tool

The screenshot shows the Jenkins 'Tools' section under 'Manage Jenkins'. The 'Maven installations' tab is selected. A new Maven configuration is being created with the name 'maven-3.9.12' and the path '/mnt/build-tool/apache-maven-3.9.12'. A warning message indicates that the directory does not exist on the Jenkins controller. There is an 'Install automatically' checkbox, which is unchecked. At the bottom are 'Save' and 'Apply' buttons.

5) create job - project should run on slave specified

The screenshot shows the 'Configure' screen for a Jenkins job named 'job'. Under the 'General' section, the 'Restrict where this project can be run' option is checked, with a 'Label Expression' set to 'slave'. This is highlighted with a yellow box. Below this, under 'Advanced', the 'Use custom workspace' option is checked, with a 'Directory' set to '/mnt/jenkins-slave'. This is also highlighted with a yellow box. At the bottom are 'Save' and 'Apply' buttons.

6)specify the git repo

The screenshot shows the Jenkins job configuration interface. Under the 'Source Code Management' section, 'Git' is selected. A yellow box highlights the 'Repository URL' field, which contains the value `https://github.com/pratiksha-awsdevops5/WebApp.git`. Below the repository URL, there is a 'Credentials' section with a dropdown menu set to '- none -'. At the bottom of the configuration panel are 'Save' and 'Apply' buttons.

7)Execute shell

The screenshot shows the Jenkins job configuration interface. Under the 'Build Steps' section, 'Execute shell' is selected. A yellow box highlights the 'Command' field, which contains the following shell script:

```
echo "===== WORKSPACE ====="
pwd
ls -l

export MAVEN_HOME=/mnt/build-tool/apache-maven-3.9.12
export PATH=$MAVEN_HOME/bin:$PATH

mvn -version
mvn clean package -DskipTests

echo "===== BUILD DONE ====="
ls -l target
```

Below the command, there is an 'Advanced' dropdown menu. At the bottom of the configuration panel are 'Save' and 'Apply' buttons.

8)Here,invoke top level maven target

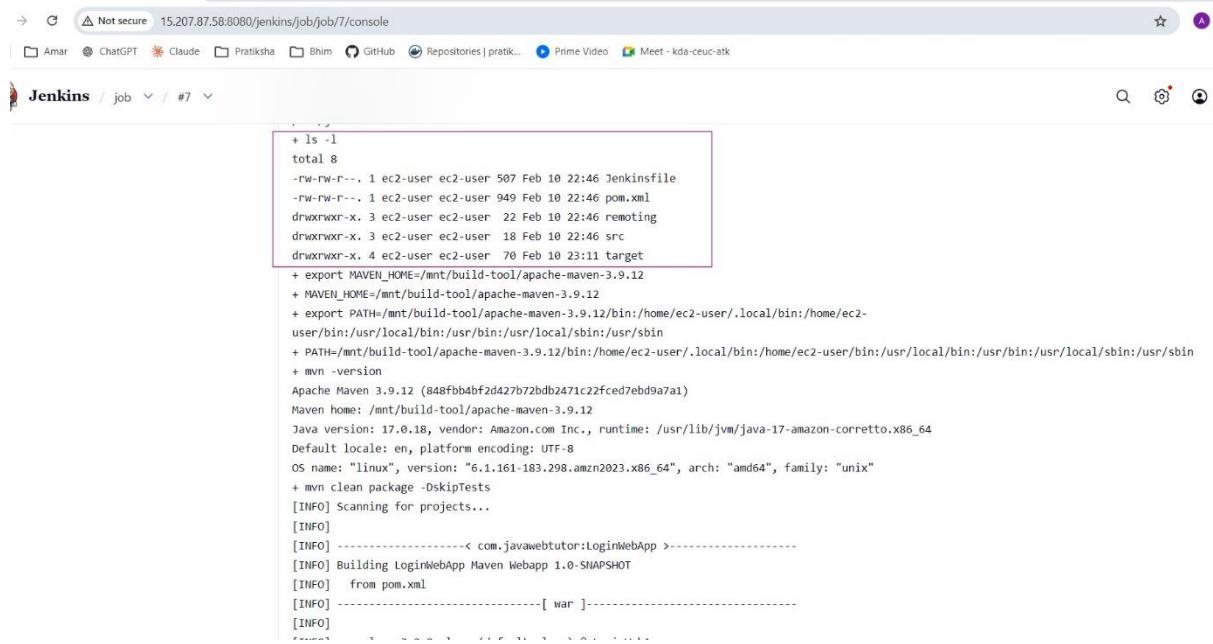
The screenshot shows the Jenkins 'Configure' screen for a job. The 'Build Steps' section is selected. Under 'Advanced' settings, the 'Goals' field contains the command `clean package -DskipTests`. The 'Maven Version' is set to `maven-3.9.12`. The 'Invoke top-level Maven targets' checkbox is checked and highlighted with a yellow box.

9)output-1

The screenshot shows the Jenkins 'Console' output for build #7. The console window displays the terminal logs of the build process. It starts by cloning the repository from GitHub, then checks out the specific commit `a15c88e945d99baa6995203f1c621415539000b7`. It then prints the workspace path `/mnt/jenkins-slave` and lists the contents of the workspace directory.

```
Started by user Pratiksha T
Running as SYSTEM
Building remotely on slave in workspace /mnt/jenkins-slave
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /mnt/jenkins-slave/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/pratiksha-awsdevops5/WebApp.git # timeout=10
Fetching upstream changes from https://github.com/pratiksha-awsdevops5/WebApp.git
> git --version # timeout=10
> git --version # 'git version 2.50.1'
> git fetch --tags --force --progress -- https://github.com/pratiksha-awsdevops5/WebApp.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision a15c88e945d99baa6995203f1c621415539000b7 (refs/remotes/origin/master)
> git config core.sparsecheckout # timeout=10
> git checkout -f a15c88e945d99baa6995203f1c621415539000b7 # timeout=10
Commit message: "Update Jenkinsfilegrewasdcx"
> git rev-list --no-walk a15c88e945d99baa6995203f1c621415539000b7 # timeout=10
[jenkins-slave] $ /bin/sh -xe /tmp/jenkins4939634875677561802.sh
+ echo '===== WORKSPACE ====='
===== WORKSPACE =====
+ pwd
/mnt/jenkins-slave
+ ls -l
```

10) target folder created



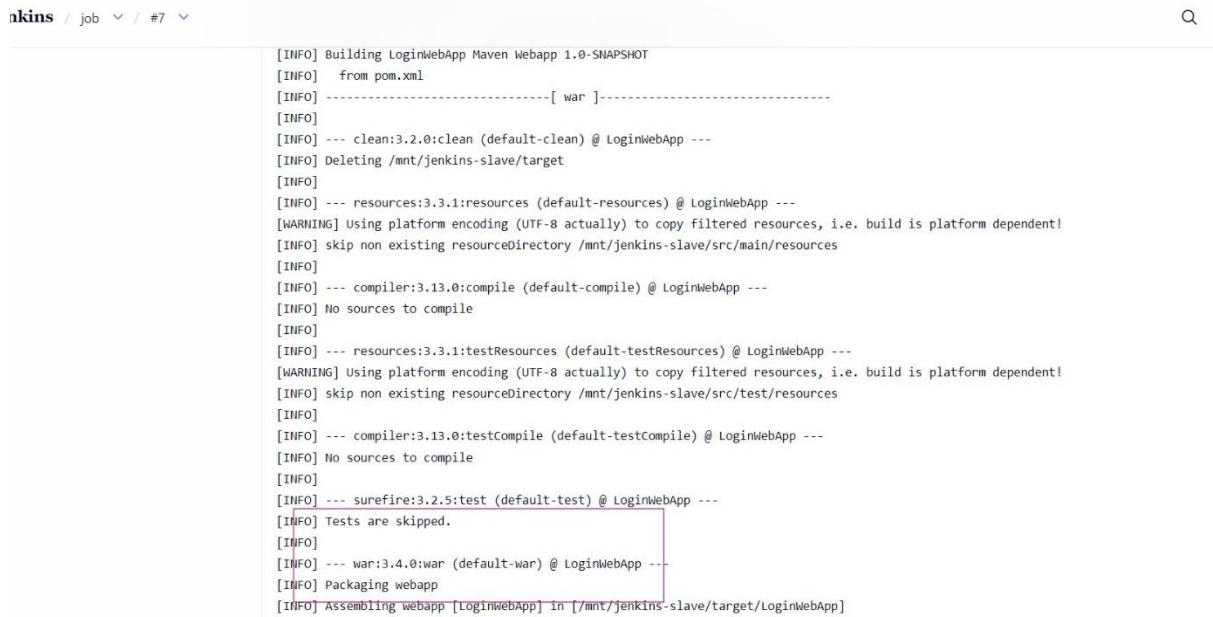
The screenshot shows a Jenkins job console window. The URL is 15.207.87.58:8080/jenkins/job/job/7/console. The terminal output shows the creation of a 'target' directory:

```
+ ls -l
total 8
-rw-rw-r--, 1 ec2-user ec2-user 507 Feb 10 22:46 Jenkinsfile
-rw-rw-r--, 1 ec2-user ec2-user 949 Feb 10 22:46 pom.xml
drwxrwxr-x, 3 ec2-user ec2-user 22 Feb 10 22:46 remoting
drwxrwxr-x, 3 ec2-user ec2-user 18 Feb 10 22:46 src
drwxrwxr-x, 4 ec2-user ec2-user 70 Feb 10 23:11 target
```

Environment variables and Maven configuration are set:

```
+ export MAVEN_HOME=/mnt/build-tool/apache-maven-3.9.12
+ MAVEN_HOME=/mnt/build-tool/apache-maven-3.9.12
+ export PATH=/mnt/build-tool/apache-maven-3.9.12/bin:/home/ec2-user/.local/bin:/home/ec2-user/bin:/usr/local/bin:/usr/bin:/sbin:/usr/sbin
+ PATH=/mnt/build-tool/apache-maven-3.9.12/bin:/home/ec2-user/.local/bin:/home/ec2-user/bin:/usr/local/bin:/usr/bin:/usr/local/sbin:/usr/sbin
+ mvn -version
Apache Maven 3.9.12 (848fb4bf2d427b72bdb2471c22fcfd7ebd9a7a1)
Maven home: /mnt/build-tool/apache-maven-3.9.12
Java version: 17.0.18, vendor: Amazon.com Inc., runtime: /usr/lib/jvm/java-17-amazon-corretto.x86_64
Default locale: en, platform encoding: UTF-8
OS name: "linux", version: "6.1.161-183.298.amzn2023.x86_64", arch: "amd64", family: "unix"
+ mvn clean package -DskipTests
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.javawebtutor:LoginWebApp >-----
[INFO] Building LoginWebApp Maven Webapp 1.0-SNAPSHOT
[INFO]   from pom.xml
[INFO] -----[ war ]-----
[INFO]
[INFO]
```

11)packaging web app



The screenshot shows a Jenkins job console window. The URL is 15.207.87.58:8080/jenkins/job/job/7/console. The terminal output shows the Maven build process for 'LoginWebApp'.

```
[INFO] Building LoginWebApp Maven Webapp 1.0-SNAPSHOT
[INFO]   from pom.xml
[INFO] -----[ war ]-----
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ LoginWebApp ---
[INFO] Deleting /mnt/jenkins-slave/target
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ LoginWebApp ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory /mnt/jenkins-slave/src/main/resources
[INFO]
[INFO] --- compiler:3.13.0:compile (default-compile) @ LoginWebApp ---
[INFO] No sources to compile
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ LoginWebApp ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory /mnt/jenkins-slave/src/test/resources
[INFO]
[INFO] --- compiler:3.13.0:testCompile (default-testCompile) @ LoginWebApp ---
[INFO] No sources to compile
[INFO]
[INFO] --- surefire:3.2.5:test (default-test) @ LoginWebApp ---
[INFO] Tests are skipped.
[INFO]
[INFO] --- war:3.4.0:war (default-war) @ LoginWebApp ---
[INFO] Packaging webapp
[INFO] Assembling webapp [LoginWebApp] in [/mnt/jenkins-slave/target/LoginWebApp]
```

12)final output

```
[INFO] --- compiler:3.13.0:compile (default-compile) @ LoginWebApp ---
[INFO] No sources to compile
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ LoginWebApp ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory /mnt/jenkins-slave/src/test/resources
[INFO]
[INFO] --- compiler:3.13.0:testCompile (default-testCompile) @ LoginWebApp ---
[INFO] No sources to compile
[INFO]
[INFO] --- surefire:3.2.5:test (default-test) @ LoginWebApp ---
[INFO] Tests are skipped.
[INFO]
[INFO] --- war:3.4.0:war (default-war) @ LoginWebApp ---
[INFO] Packaging webapp
[INFO] Assembling webapp [LoginWebApp] in [/mnt/jenkins-slave/target/LoginWebApp]
[INFO] Processing war project
[INFO] Copying webapp resources [/mnt/jenkins-slave/src/main/webapp]
[INFO] Building war: /mnt/jenkins-slave/target/LoginWebApp.war
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time:  2.333 s
[INFO] Finished at: 2026-02-10T23:13:29Z
[INFO] -----
Finished: SUCCESS
```