

Software Testing

EPAM

INDIVIDUAL PRACTICAL TASK REPORT

Module continuous integration with Jenkins Practical task

Bachelor Of Technology

Computer Science & Engineering

(Software Testing)

**LOVELY PROFESSIONAL UNIVERSITY PHAGWARA,
PUNJAB**



01/05/2023

SUBMITTED BY

Name of the student :- Nitu Singh

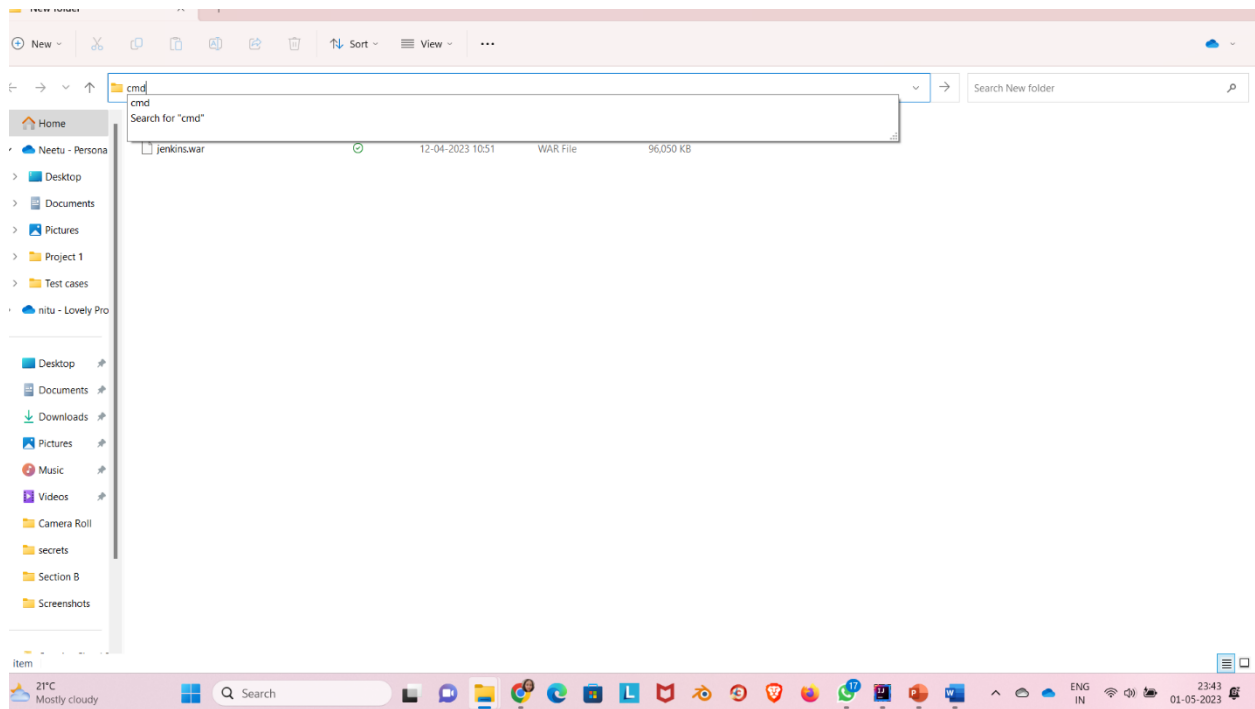
Registration Number :- 11909278

Roll No:- 14

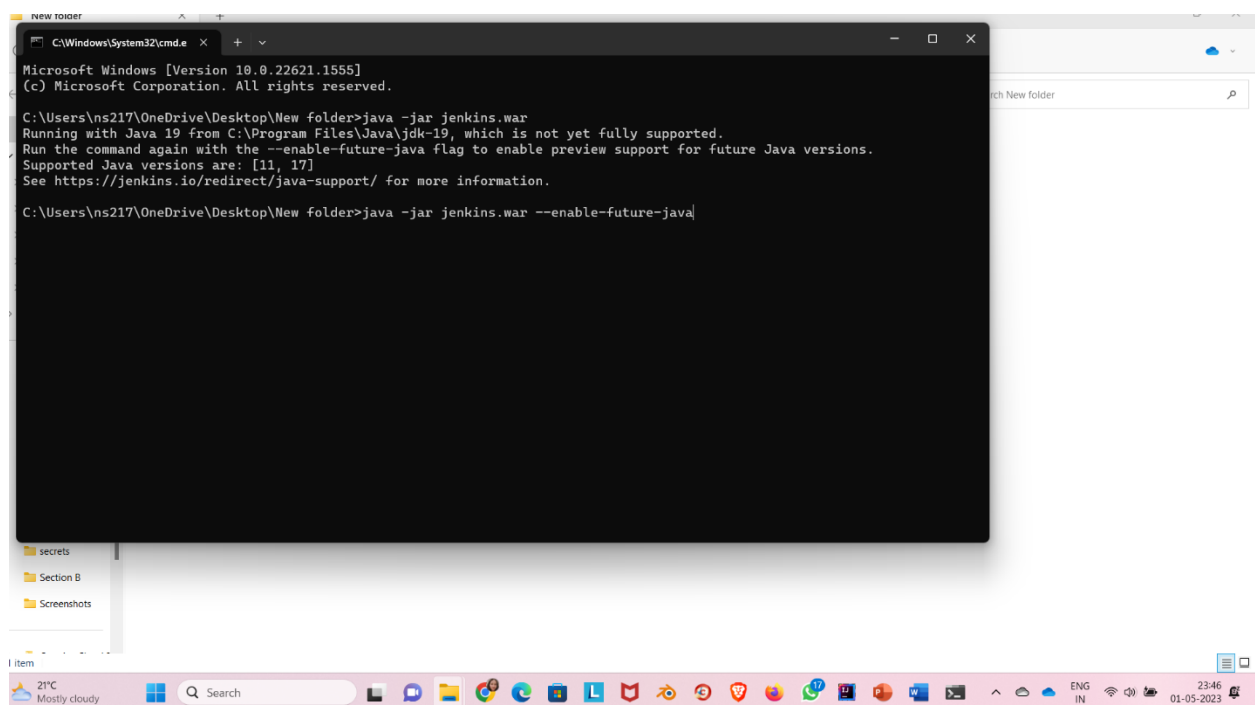
SUBMITTED TO

Name of the assistant professor:- Sakshi

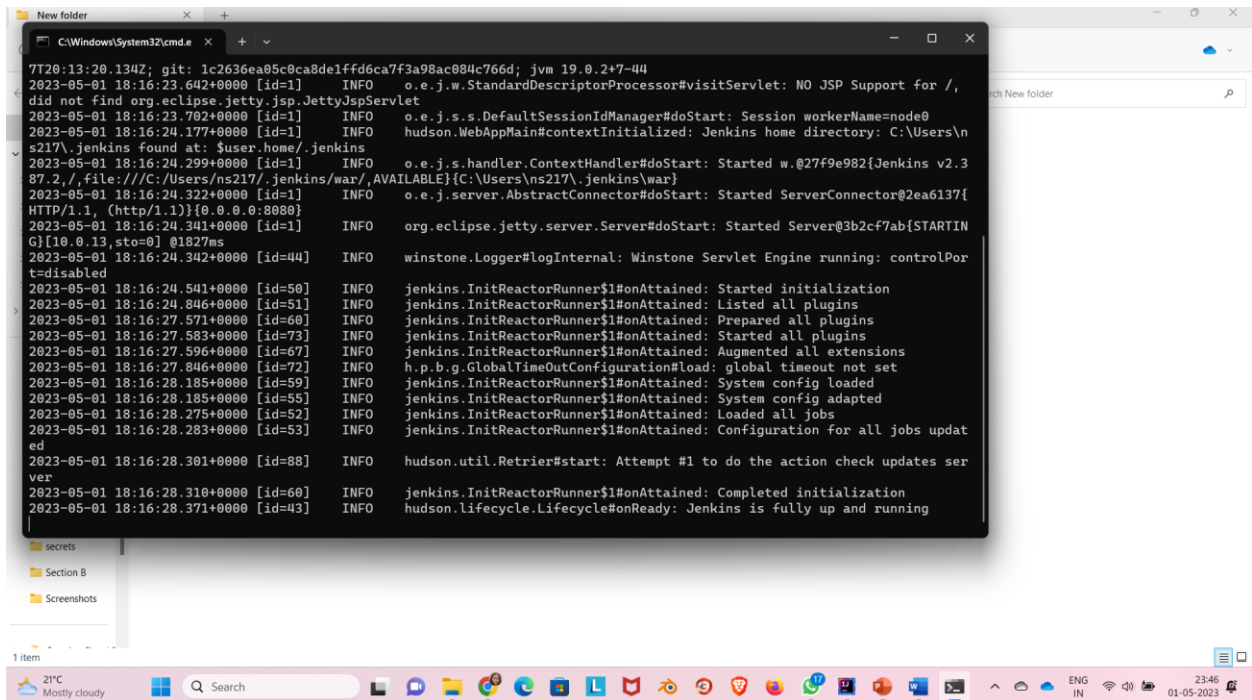
Step 1 :- Open Jenkins Folder and type command “cmd”



Step 2 :- Start Jenkins With Command java -jar Jenkins.war then Second Command java -jar Jenkins.war --enable-future-java

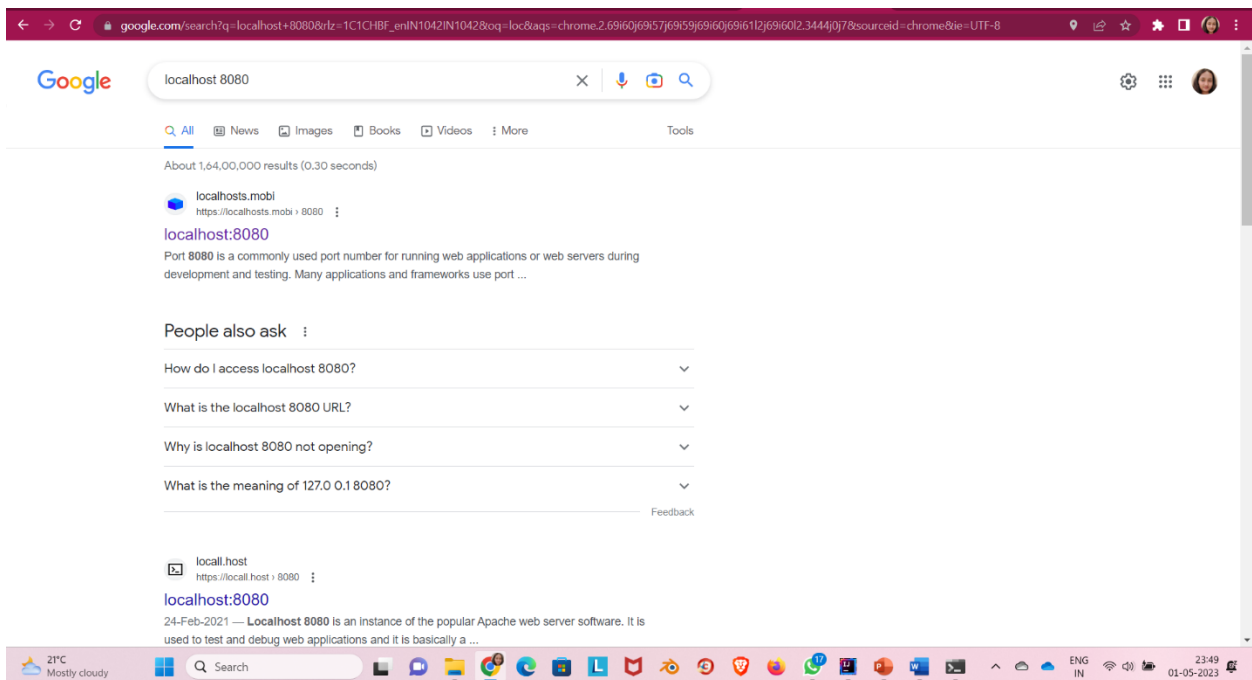


Step 3 :- Start Jenkin Running

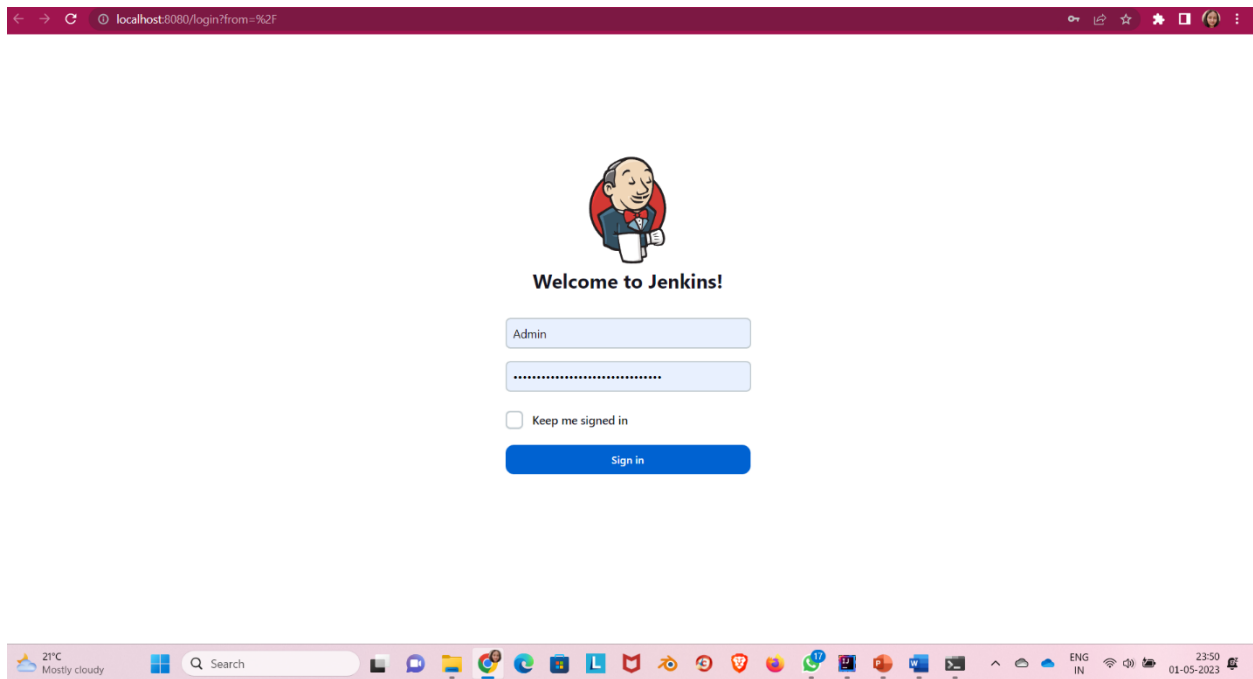


```
7/20:13:20.134Z; git: 1c2636ea05c0ca8de1ffdc6a7f3a98ac084c766d; jvm 19.0.2+7-44
2023-05-01 18:16:23.642+0000 [id=1] INFO o.e.j.w.StandardDescriptorProcessor#visitServlet: NO JSP Support for /,
did not find org.eclipse.jetty.jsp.JettyJspServlet
2023-05-01 18:16:23.782+0000 [id=1] INFO o.e.j.s.s.DefaultSessionIdManager#doStart: Session workerName=node0
2023-05-01 18:16:24.177+0000 [id=1] INFO hudson.WebAppMain#contextInitialized: Jenkins home directory: C:\Users\n
s217\jenkins found at: $user.home/.jenkins
2023-05-01 18:16:24.299+0000 [id=1] INFO o.e.j.s.handler.ContextHandler#doStart: Started w.@27f9e982{Jenkins v2.3
87.2,/,file:///C:/Users/ns217/.jenkins/war/AVAILABLE[C:/Users/ns217/.jenkins/war]
2023-05-01 18:16:24.322+0000 [id=1] INFO o.e.j.server.AbstractConnector#doStart: Started ServerConnector@2ea6137{
HTTP/1.1,(http/1.1){0.0.0.0:8080}
2023-05-01 18:16:24.341+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: Started Server@3b2cf7ab{STARTIN
G}[10.0.13.sto=0]@1827ms
2023-05-01 18:16:24.342+0000 [id=44] INFO winstone.Logger#logInternal: Winstone Servlet Engine running: controlPor
t=disabled
2023-05-01 18:16:24.541+0000 [id=50] INFO jenkins.InitReactorRunner$1#onAttained: Started initialization
2023-05-01 18:16:24.846+0000 [id=51] INFO jenkins.InitReactorRunner$1#onAttained: Listed all plugins
2023-05-01 18:16:27.571+0000 [id=60] INFO jenkins.InitReactorRunner$1#onAttained: Prepared all plugins
2023-05-01 18:16:27.583+0000 [id=73] INFO jenkins.InitReactorRunner$1#onAttained: Started all plugins
2023-05-01 18:16:27.596+0000 [id=67] INFO jenkins.InitReactorRunner$1#onAttained: Augmented all extensions
2023-05-01 18:16:27.846+0000 [id=72] INFO h.p.b.g.GlobalTimeoutConfiguration#load: global timeout not set
2023-05-01 18:16:28.185+0000 [id=59] INFO jenkins.InitReactorRunner$1#onAttained: System config loaded
2023-05-01 18:16:28.185+0000 [id=55] INFO jenkins.InitReactorRunner$1#onAttained: System config adapted
2023-05-01 18:16:28.275+0000 [id=52] INFO jenkins.InitReactorRunner$1#onAttained: Loaded all jobs
2023-05-01 18:16:28.283+0000 [id=53] INFO jenkins.InitReactorRunner$1#onAttained: Configuration for all jobs updat
ed
2023-05-01 18:16:28.301+0000 [id=88] INFO hudson.util.Retrier#start: Attempt #1 to do the action check updates ser
ver
2023-05-01 18:16:28.310+0000 [id=60] INFO jenkins.InitReactorRunner$1#onAttained: Completed initialization
2023-05-01 18:16:28.371+0000 [id=43] INFO hudson.lifecycle.Lifecycle#onReady: Jenkins is fully up and running
```

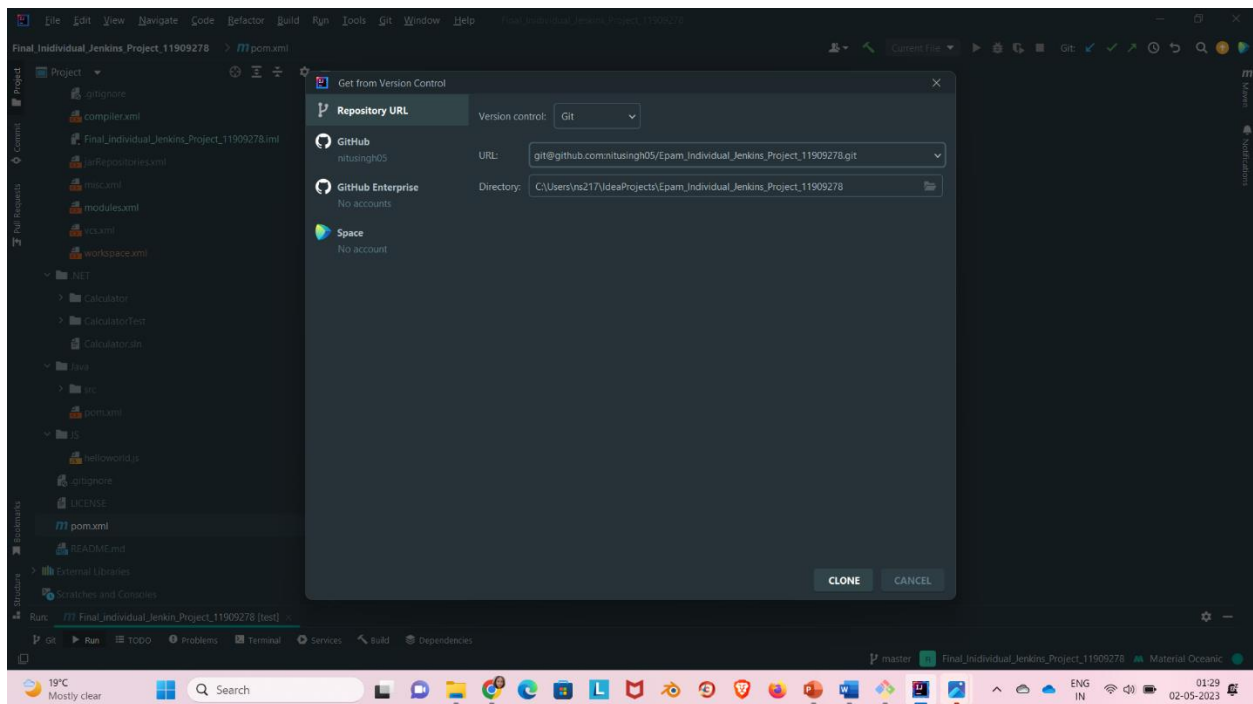
Step 4 :- Open Chrome Browser and Type localhost:8080



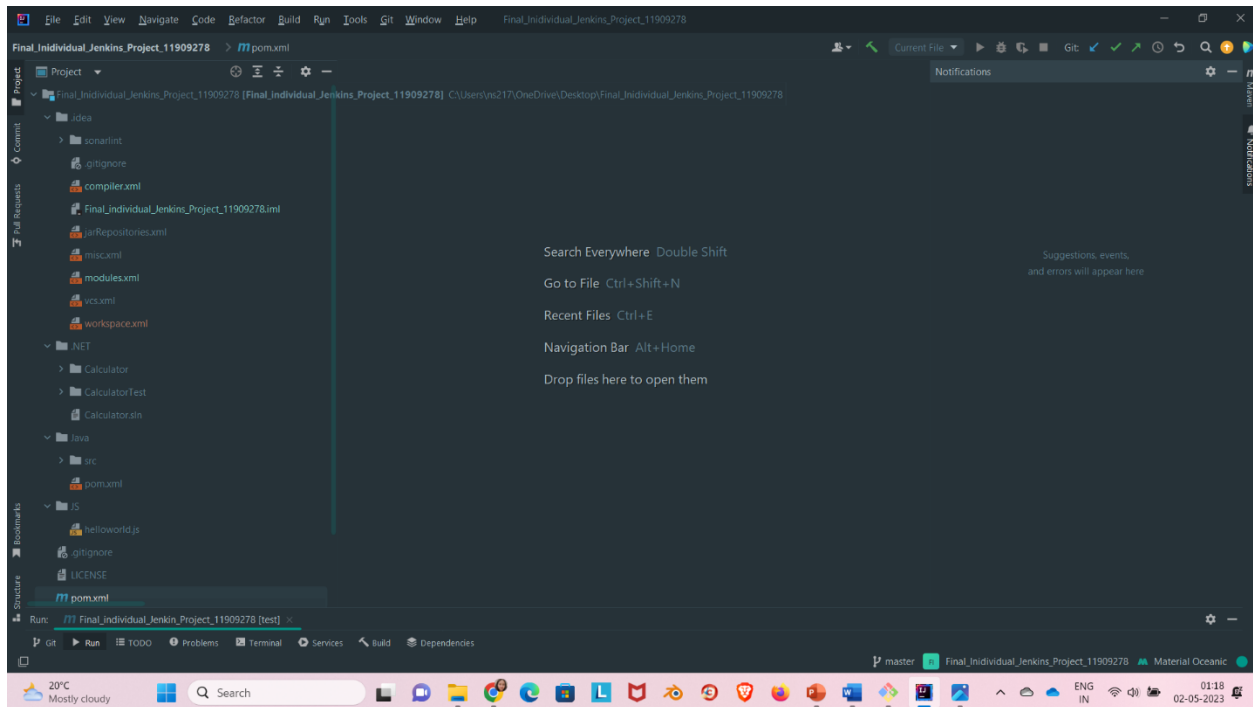
Step 5 :- Jankins Login With Credential



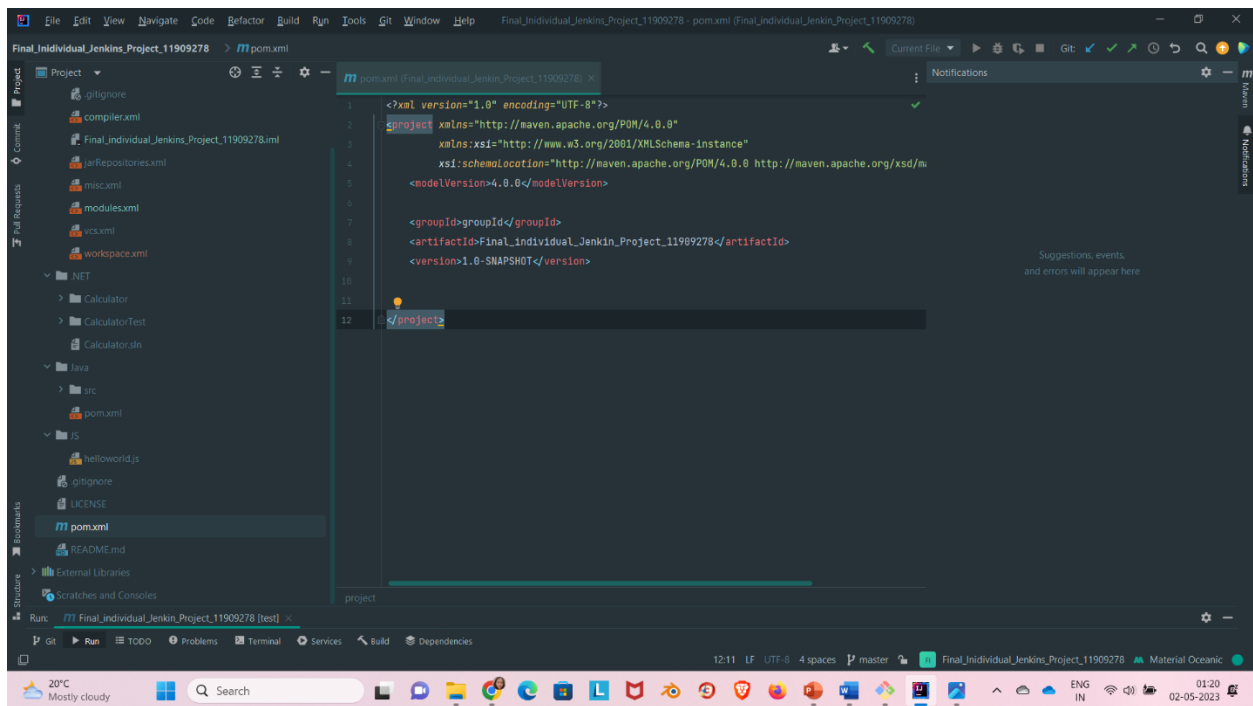
Step 6 :- Clone of Repository



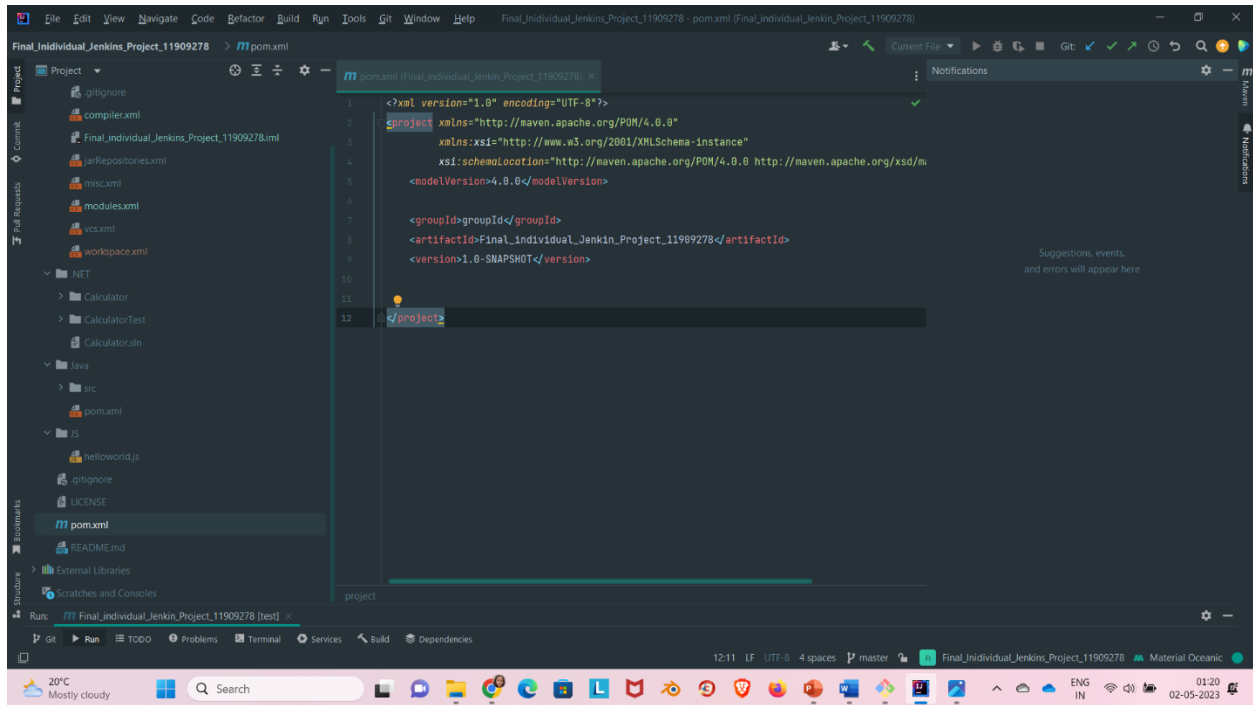
Step 7 :- Clone of Repository Completely



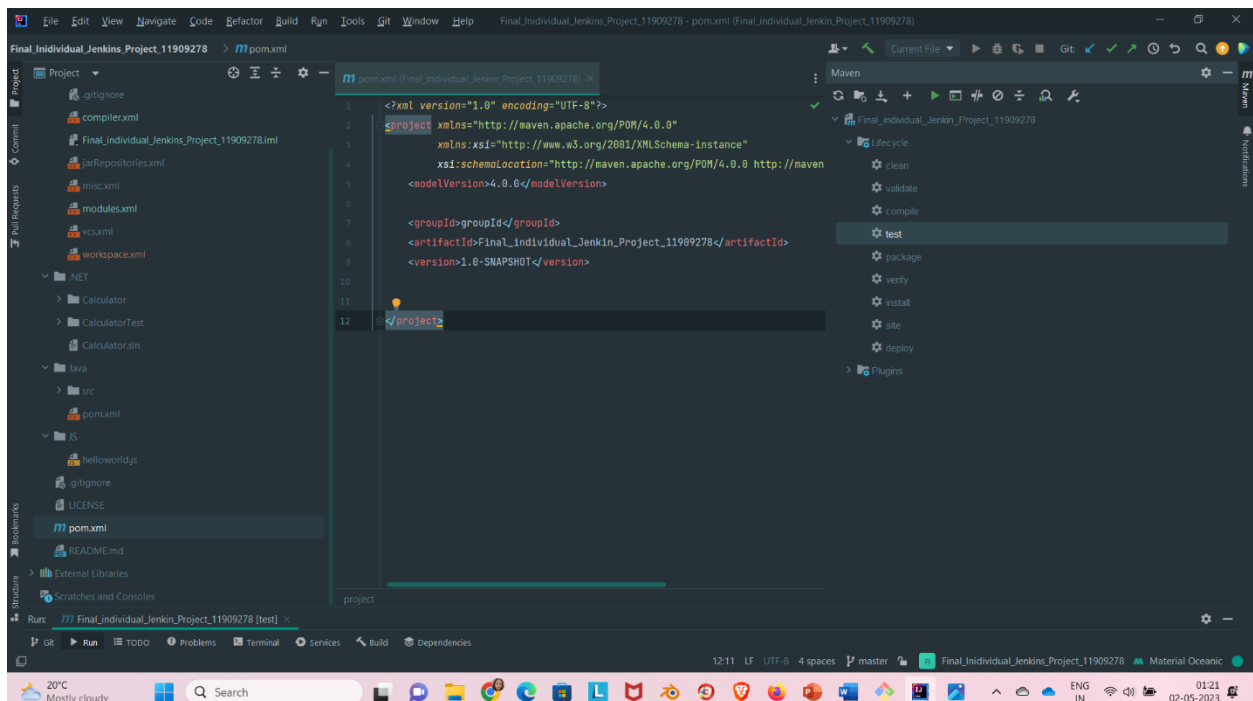
Step 8 :- Open Pom.Xml file



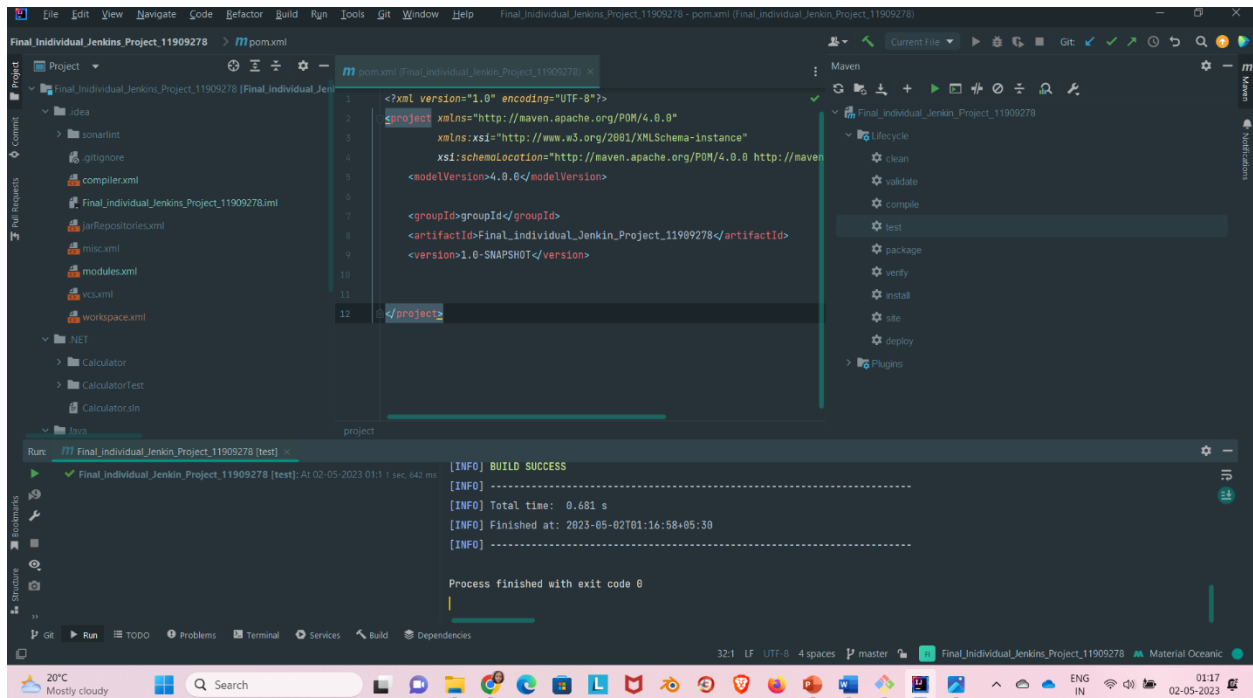
Step 9 :- Perform MVN Lifecycle



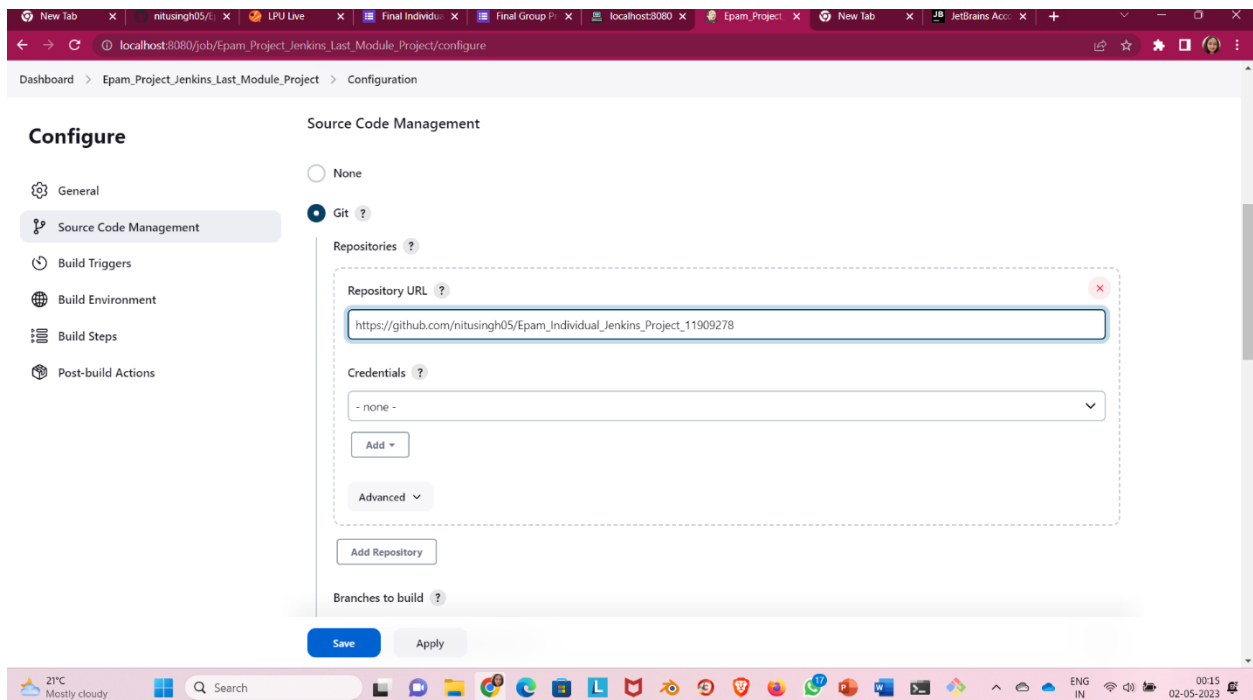
Step 10 :- Perform MVN LifeCycle



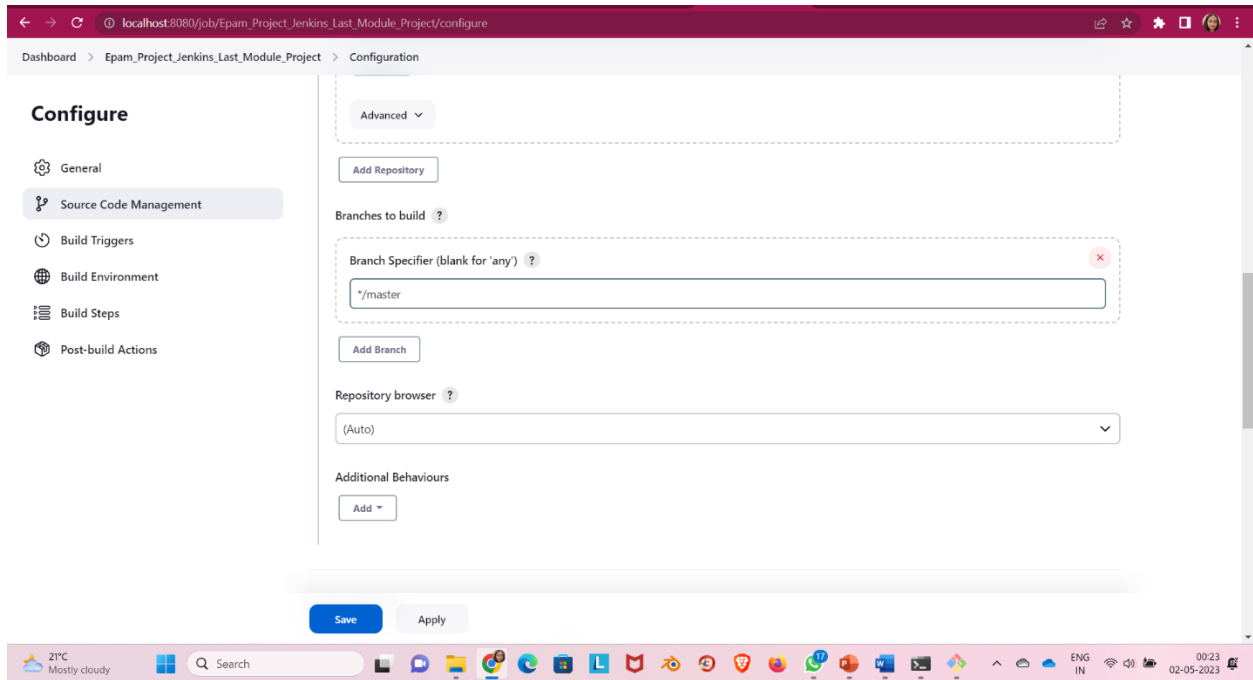
Step 11 :- Build Success



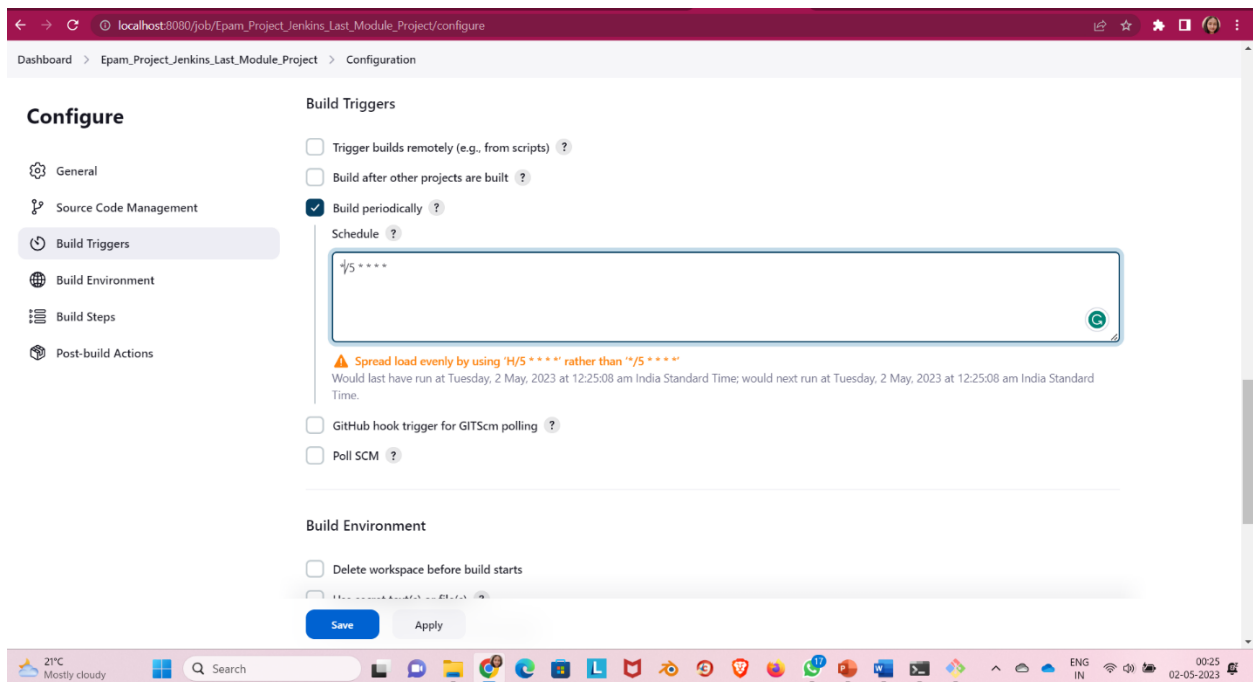
Step 12 :- Push URL Of Clone In Jenkins Configuration



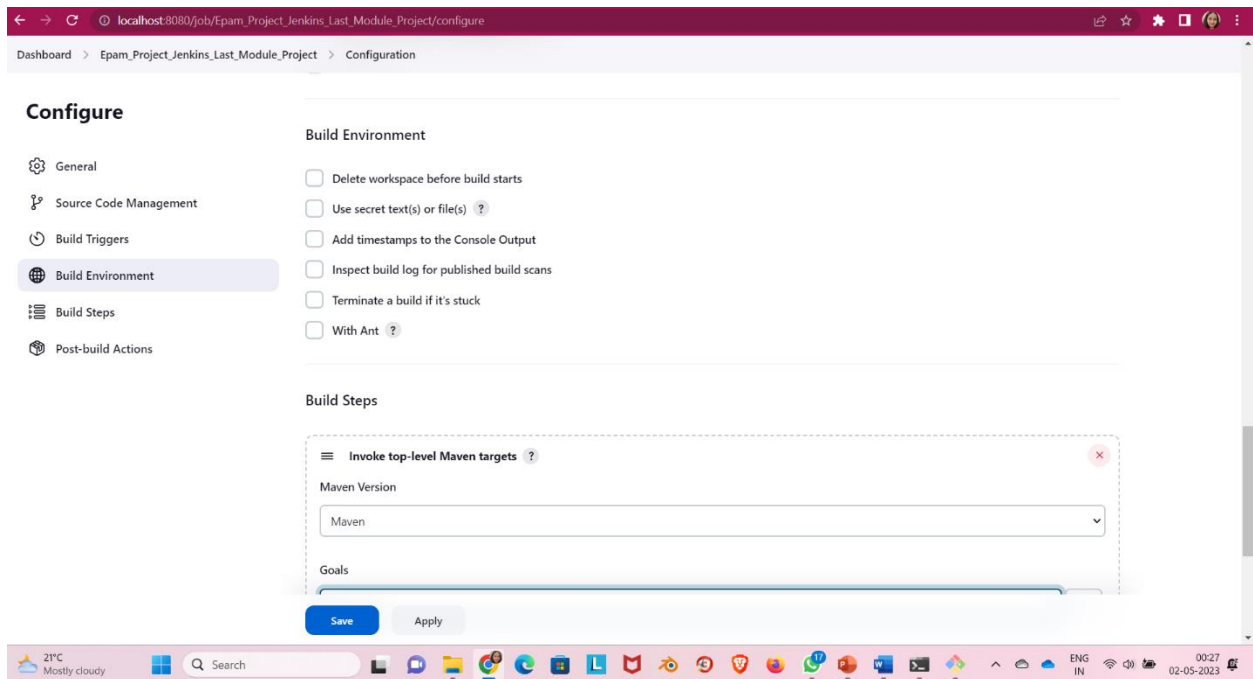
Step 13 :- Jenkins Configuration



Step 14 :- Jenkins Configuration Build Trigger 5 Minutes

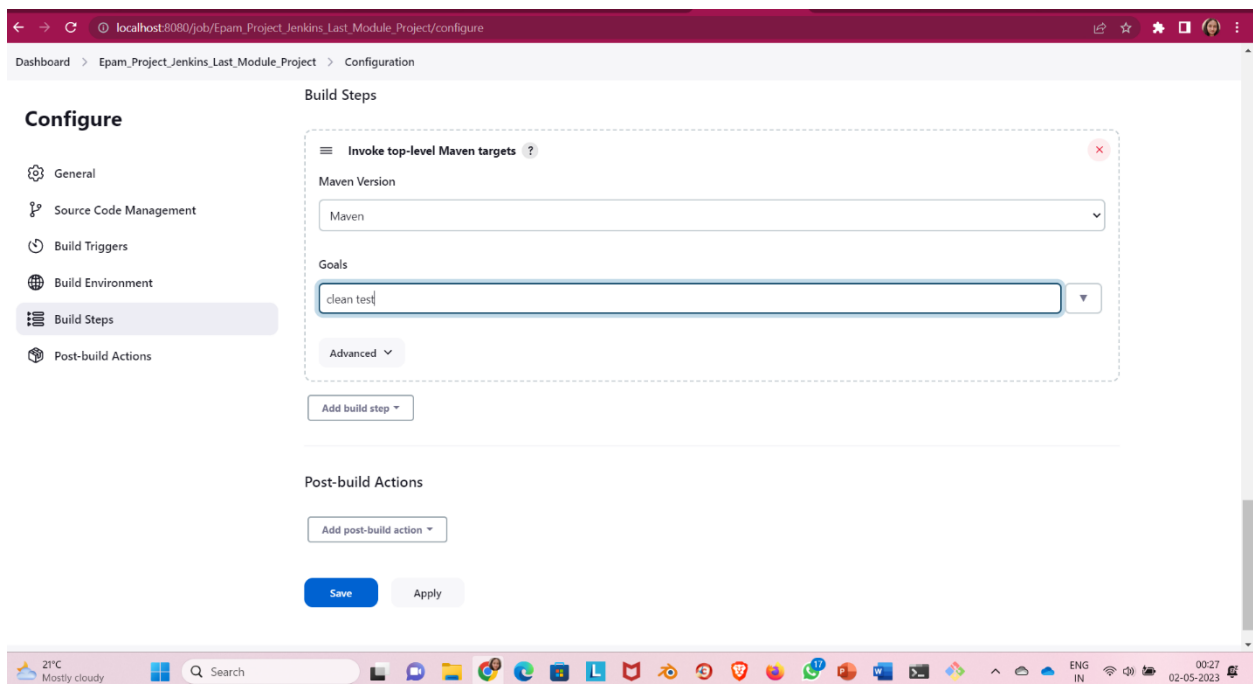


Step 15 :- Jenkins Configuration



The screenshot shows the Jenkins Configuration page for a job named 'Epam_Project_Jenkins_Last_Module_Project'. The left sidebar contains a 'Configure' section with a list of tabs: General, Source Code Management, Build Triggers, Build Environment (selected), Build Steps, and Post-build Actions. The main content area is divided into two sections: 'Build Environment' and 'Build Steps'. The 'Build Environment' section has several checkboxes: 'Delete workspace before build starts', 'Use secret text(s) or file(s)', 'Add timestamps to the Console Output', 'Inspect build log for published build scans', 'Terminate a build if it's stuck', and 'With Ant'. The 'Build Steps' section contains a single step named 'Invoke top-level Maven targets'. This step has a 'Maven Version' dropdown set to 'Maven' and a 'Goals' field. At the bottom of the configuration area are 'Save' and 'Apply' buttons. The browser's address bar shows 'localhost:8080/job/Epam_Project_Jenkins_Last_Module_Project/configure'. The Windows taskbar at the bottom shows the date as 02-05-2023 and time as 00:27.

Step 16 :- Jenkins Configuration Maven clean test



The screenshot shows the Jenkins Configuration page for the same job, but now the 'Build Steps' tab is selected in the left sidebar. The 'Build Steps' section contains the 'Invoke top-level Maven targets' step. In this step, the 'Goals' field now contains the text 'clean test'. Below the 'Goals' field is an 'Advanced' dropdown menu. At the bottom of the configuration area are 'Save' and 'Apply' buttons. The browser's address bar remains the same. The Windows taskbar at the bottom shows the date as 02-05-2023 and time as 00:27.

Step 16 :- Jenkins Build Now Successfully

The screenshot shows the Jenkins dashboard for the project 'Epam_Project_Jenkins_Last_Module_Project'. The left sidebar contains navigation links: Status, Changes, Workspace, Build Now, Configure, Delete Project, HTML Report, Rename, and Test Results Analyzer. The main area displays the project name and a 'Build History' section with a 'trend' dropdown. The build history table shows the following builds:

Build Number	Timestamp
#14	2 May 2023 00:47
#13	2 May 2023 00:47
#12	2 May 2023 00:47
#11	2 May 2023 00:45
#10	2 May 2023 00:42

Below the build history, there is a 'Permalinks' section with a list of links for the last build (#11):

- Last build (#11), 2 min 26 sec ago
- Last stable build (#11), 2 min 26 sec ago
- Last successful build (#11), 2 min 26 sec ago
- Last completed build (#11), 2 min 26 sec ago

The bottom of the screenshot shows a Windows taskbar with the date and time as 02-05-2023 00:47.

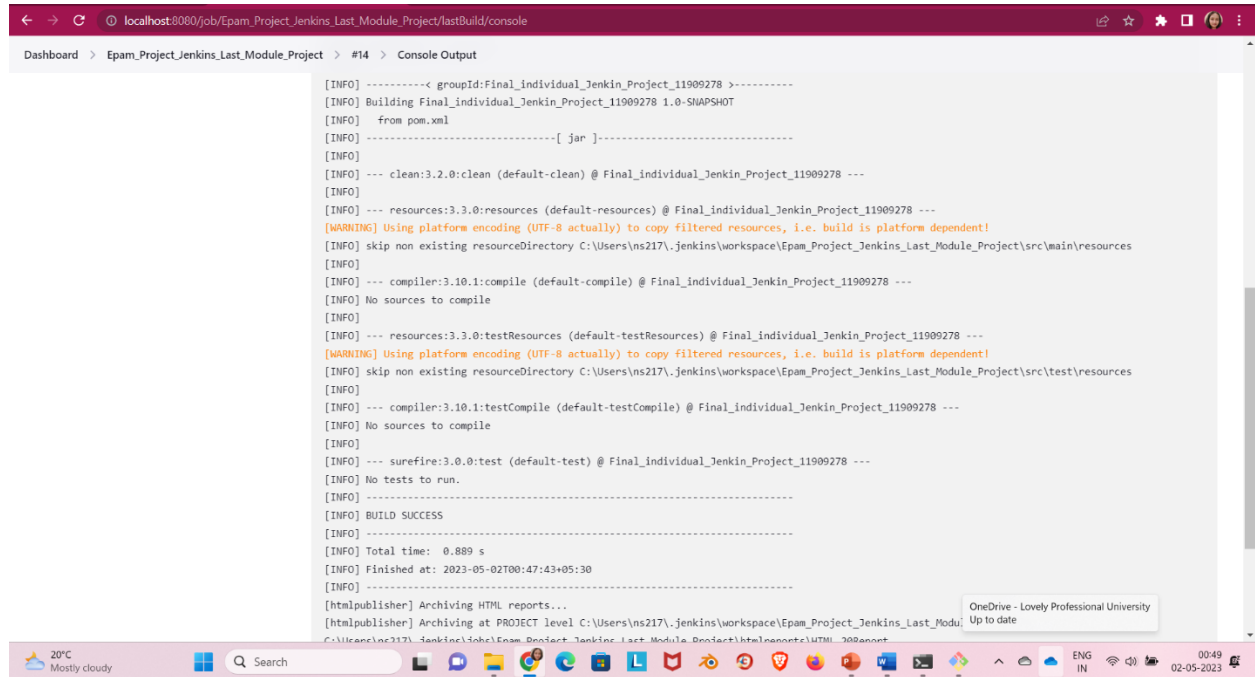
Step 17 :- Jenkins Console Output

The screenshot shows the Jenkins console output for build #14. The left sidebar contains navigation links: Status, Changes, Console Output, View as plain text, Edit Build Information, Delete build '#14', Git Build Data, and Previous Build. The main area displays the console output, which includes the following text:

```
Started by user admin
Running as SYSTEM
Building in workspace C:\Users\ns217\jenkins\workspace\Epam_Project_Jenkins_Last_Module_Project
The recommended git tool is: NONE
No credentials specified
> git.exe rev-parse --resolve-git-dir C:\Users\ns217\jenkins\workspace\Epam_Project_Jenkins_Last_Module_Project\.git # timeout=10
Fetching changes from the remote Git repository
> git.exe config remote.origin.url https://github.com/nitusingh05/Epam_Individual_Jenkins_Project_11909278 # timeout=10
Fetching upstream changes from https://github.com/nitusingh05/Epam_Individual_Jenkins_Project_11909278
> git.exe --version # timeout=10
> git --version # 'git version 2.39.1.windows.1'
> git.exe fetch --tags --force --progress -- https://github.com/nitusingh05/Epam_Individual_Jenkins_Project_11909278
+refs/heads/*:refs/remotes/origin/* # timeout=10
> git.exe rev-parse "refs/remotes/origin/master^(commit)" # timeout=10
Checking out Revision df435aa1506b9824051bd0decbb3411c5ef7c243 (refs/remotes/origin/master)
> git.exe config core.sparsecheckout # timeout=10
> git.exe checkout -f df435aa1506b9824051bd0decbb3411c5ef7c243 # timeout=10
Commit message: "Final Individual Project"
> git.exe rev-list --no-walk df435aa1506b9824051bd0decbb3411c5ef7c243 # timeout=10
[Epam_Project_Jenkins_Last_Module_Project] $ cmd.exe /C "C:\Users\ns217\Downloads\apache-maven-3.9.1-bin\apache-maven-3.9.1\bin\mvn.cmd clean test
&& exit %ERRORLEVEL%"
[INFO] Scanning for projects...
[INFO]
```

The bottom of the screenshot shows a Windows taskbar with the date and time as 02-05-2023 00:49.

Step 18 :- Jenkins Console Output

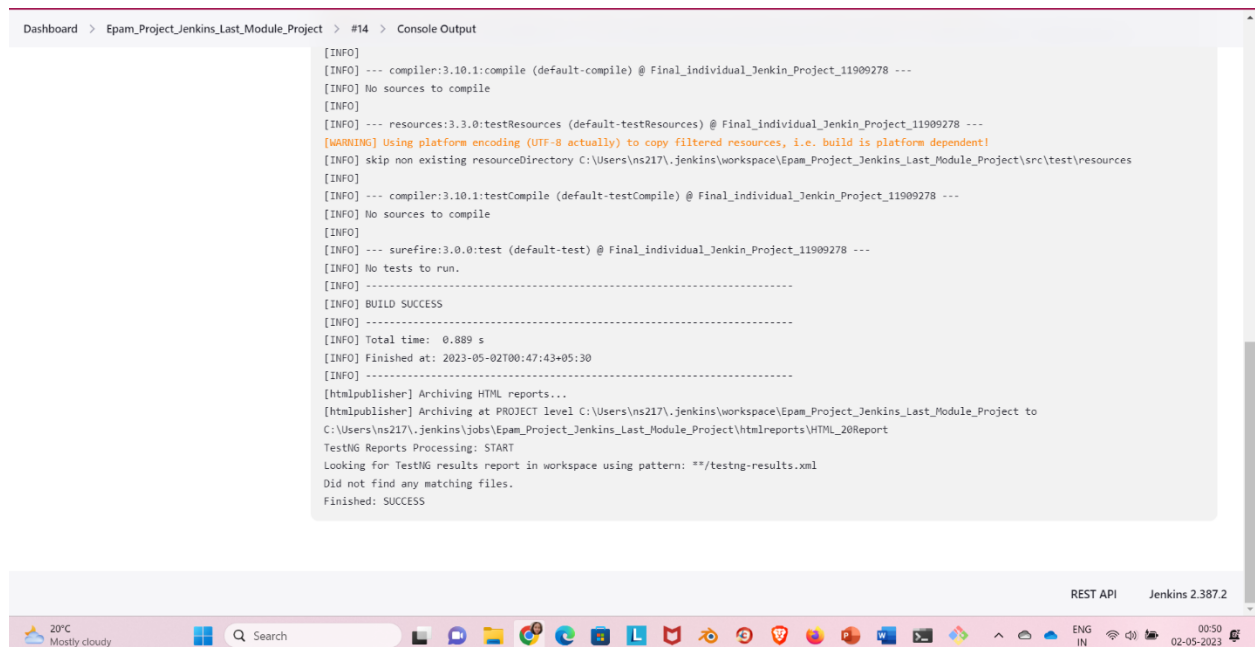


The screenshot shows the Jenkins console output for a build. The output is as follows:

```
[INFO] -----< groupId:Final_individual_Jenkin_Project_11909278 >-----
[INFO] Building Final_individual_Jenkin_Project_11909278 1.0-SNAPSHOT
[INFO] from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ Final_individual_Jenkin_Project_11909278 ---
[INFO]
[INFO] --- resources:3.3.0:resources (default-resources) @ Final_individual_Jenkin_Project_11909278 ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory C:\Users\ns217\.jenkins\workspace\Epam_Project_Jenkins_Last_Module_Project\src\main\resources
[INFO]
[INFO] --- compiler:3.10.1:compile (default-compile) @ Final_individual_Jenkin_Project_11909278 ---
[INFO] No sources to compile
[INFO]
[INFO] --- resources:3.3.0:testResources (default-testResources) @ Final_individual_Jenkin_Project_11909278 ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory C:\Users\ns217\.jenkins\workspace\Epam_Project_Jenkins_Last_Module_Project\src\test\resources
[INFO]
[INFO] --- compiler:3.10.1:testCompile (default-testCompile) @ Final_individual_Jenkin_Project_11909278 ---
[INFO] No sources to compile
[INFO]
[INFO] --- surefire:3.0.0:test (default-test) @ Final_individual_Jenkin_Project_11909278 ---
[INFO] No tests to run.
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 0.889 s
[INFO] Finished at: 2023-05-02T00:47:43+05:30
[INFO] -----
[htmlpublisher] Archiving HTML reports...
[htmlpublisher] Archiving at PROJECT level C:\Users\ns217\.jenkins\workspace\Epam_Project_Jenkins_Last_Module_Project\htmlreports\HTML_20Report
C:\Users\ns217\.jenkins\workspace\Epam_Project_Jenkins_Last_Module_Project\htmlreports\HTML_20Report
```

The screenshot also shows a Windows taskbar at the bottom with a search bar, task icons, and system tray information including temperature (20°C), weather (Mostly cloudy), language (ENG IN), and time (00:49 02-05-2023).

Step 19 :- Jenkins Console Output



The screenshot shows the Jenkins console output for a build. The output is as follows:

```
[INFO]
[INFO] --- compiler:3.10.1:compile (default-compile) @ Final_individual_Jenkin_Project_11909278 ---
[INFO] No sources to compile
[INFO]
[INFO] --- resources:3.3.0:testResources (default-testResources) @ Final_individual_Jenkin_Project_11909278 ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory C:\Users\ns217\.jenkins\workspace\Epam_Project_Jenkins_Last_Module_Project\src\test\resources
[INFO]
[INFO] --- compiler:3.10.1:testCompile (default-testCompile) @ Final_individual_Jenkin_Project_11909278 ---
[INFO] No sources to compile
[INFO]
[INFO] --- surefire:3.0.0:test (default-test) @ Final_individual_Jenkin_Project_11909278 ---
[INFO] No tests to run.
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 0.889 s
[INFO] Finished at: 2023-05-02T00:47:43+05:30
[INFO] -----
[htmlpublisher] Archiving HTML reports...
[htmlpublisher] Archiving at PROJECT level C:\Users\ns217\.jenkins\workspace\Epam_Project_Jenkins_Last_Module_Project to
C:\Users\ns217\.jenkins\workspace\Epam_Project_Jenkins_Last_Module_Project\htmlreports\HTML_20Report
TestNG Reports Processing: START
Looking for TestNG results report in workspace using pattern: **/testng-results.xml
Did not find any matching files.
Finished: SUCCESS
```

The screenshot also shows a Windows taskbar at the bottom with a search bar, task icons, and system tray information including temperature (20°C), weather (Mostly cloudy), language (ENG IN), and time (00:50 02-05-2023). The Jenkins version 2.387.2 is visible in the bottom right corner.

