Name: Mrunal Vaidya XIE ID: 202003060
Roll : 68 Batch: C

Experiment 7

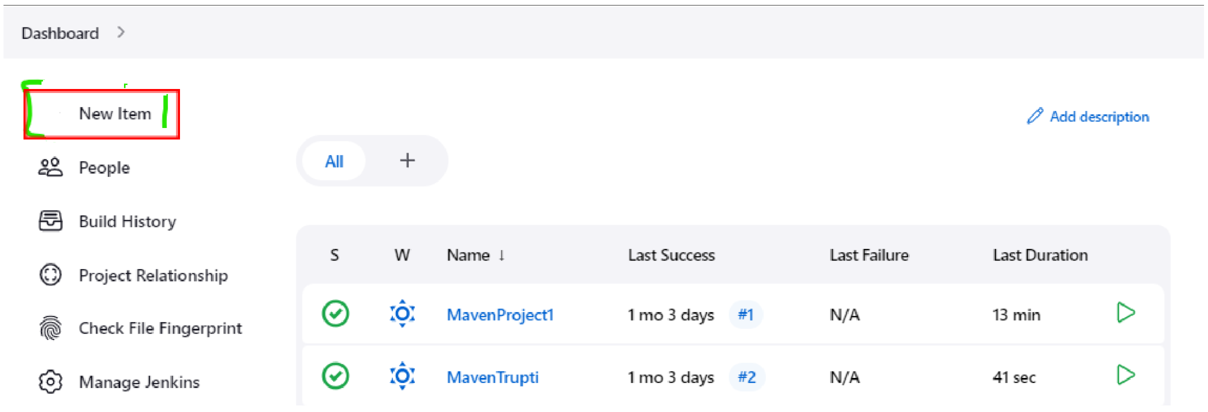
Aim: To Setup and Run Selenium Tests in Jenkins Using Maven.

Theory:
Selenium is an open-source, automated testing tool used to test web applications across various browsers. Selenium can only test web applications, unfortunately, so desktop and mobile apps can't be tested. However, other tools like Appium and HP's QTP can be used to test software and mobile applications.

Features of Selenium:
- Selenium has proven to be accurate with results thus making it extremely reliable.
- Since selenium is open-source, anybody willing to learn testing can begin at no cost.
- Selenium supports a broad spectrum of programming languages like Python, PHP, Perl, and Ruby.
- Selenium supports various browsers like Chrome, Firefox, and Opera, among others.

Limitations of Selenium:
- Since Selenium is open-source, it doesn't have a developer community and hence doesn't have reliable tech support.
- Selenium cannot test mobile or desktop applications.
- Selenium offers limited support for image testing.
- Selenium has limited support for test management. Selenium is often integrated with tools like JUnit and TestNG for this purpose.
- You may need knowledge of programming languages to use Selenium

Output:
1. Login to Jenkins and click on New Item to create a project



S	W	Name ↓	Last Success	Last Failure	Last Duration
✓	☼	MavenProject1	1 mo 3 days #1	N/A	13 min
✓	☼	MavenTrupti	1 mo 3 days #2	N/A	41 sec

2. Give a name to your project and select Maven Project

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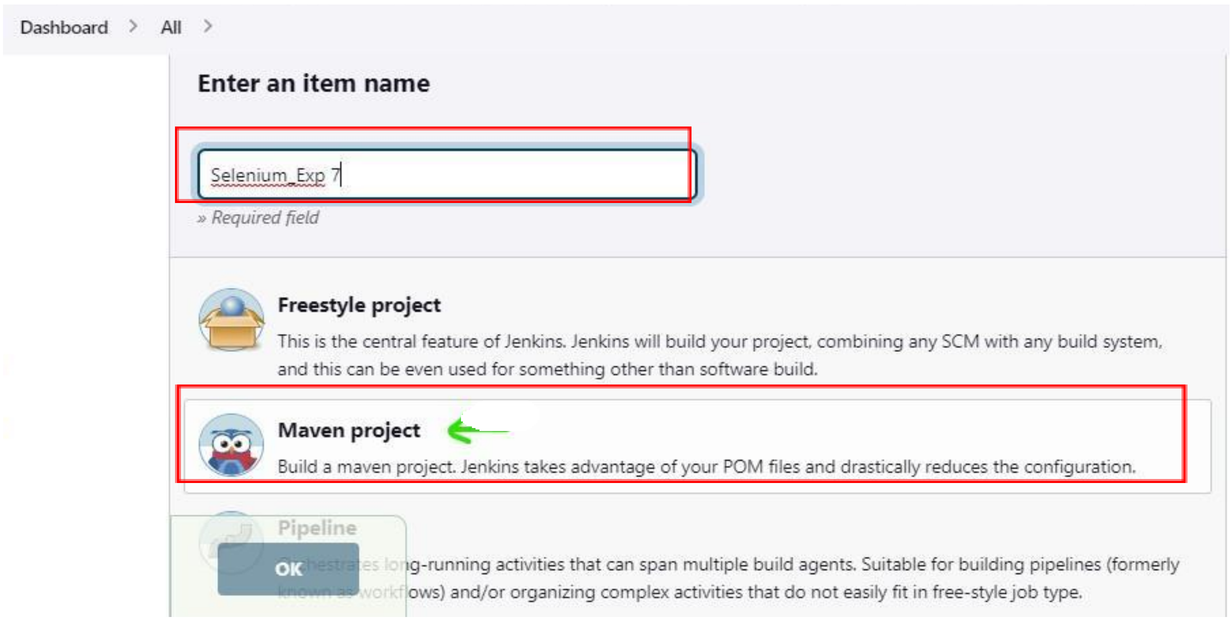
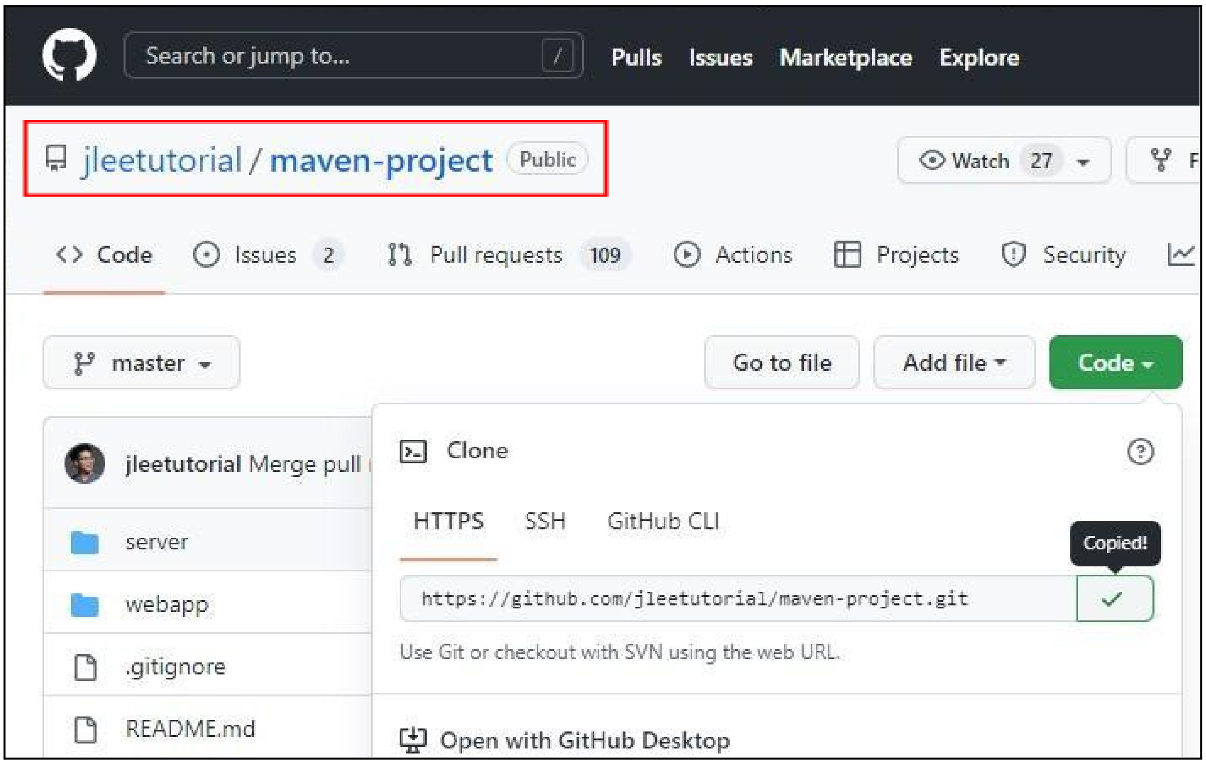

Dashboard > All >
Enter an item name
Selenium_Exp 7
» Required field
Freestyle project
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.
Maven project
Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.
Pipeline
OK
…g-running activities that can span multiple build agents. Suitable for building pipelines (formerly …ows) and/or organizing complex activities that do not easily fit in free-style job type.

3. Now, Login to your GitHub Account and search for a repository named jleetutorial maven project. Then copy the https path.



4. Come back to Jenkins and paste the repository path in the Source Code Management

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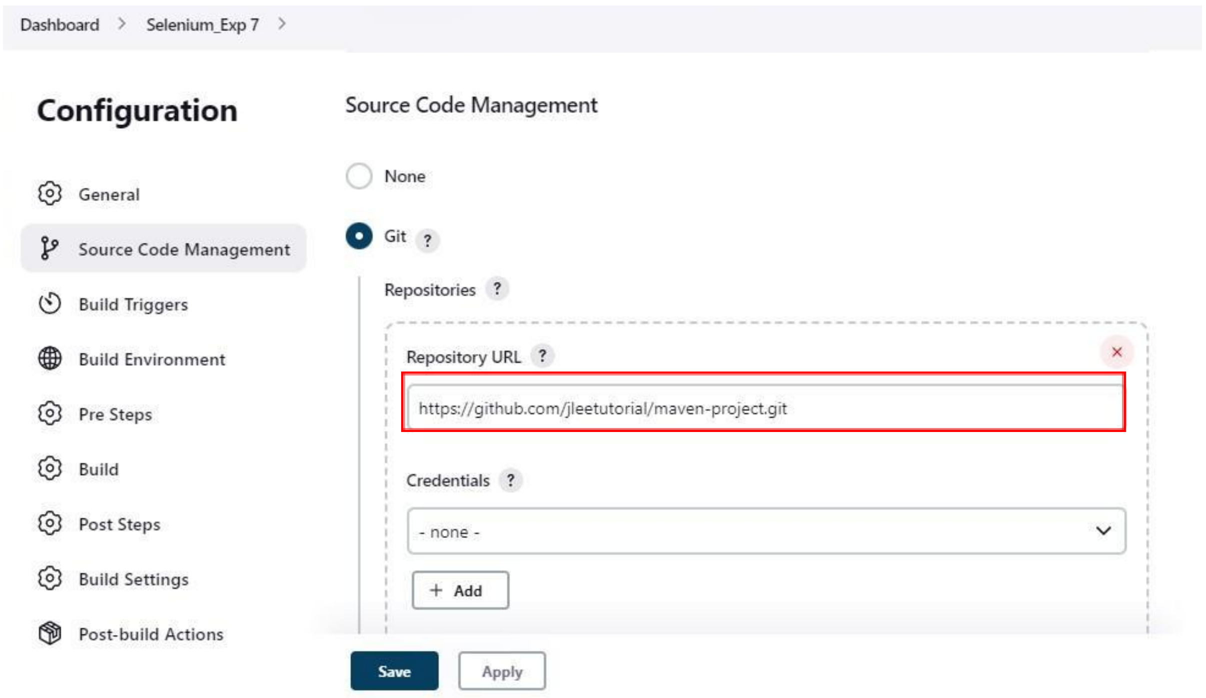

Dashboard > Selenium_Exp 7 >

Configuration

Source Code Management

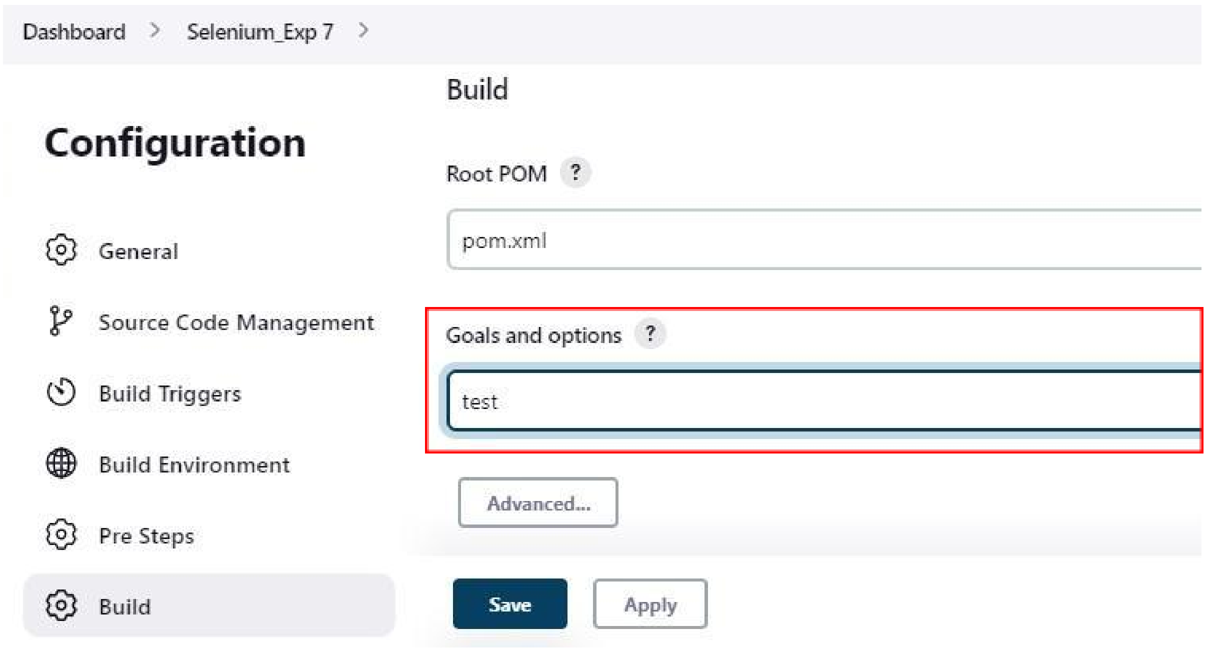
None
[✓ Git]

Repositories

Repository URL
https://github.com/jleetutorial/maven-project.git

Credentials
- none -

5. Enter “test” in the Goals and options section


Dashboard > Selenium_Exp 7 >

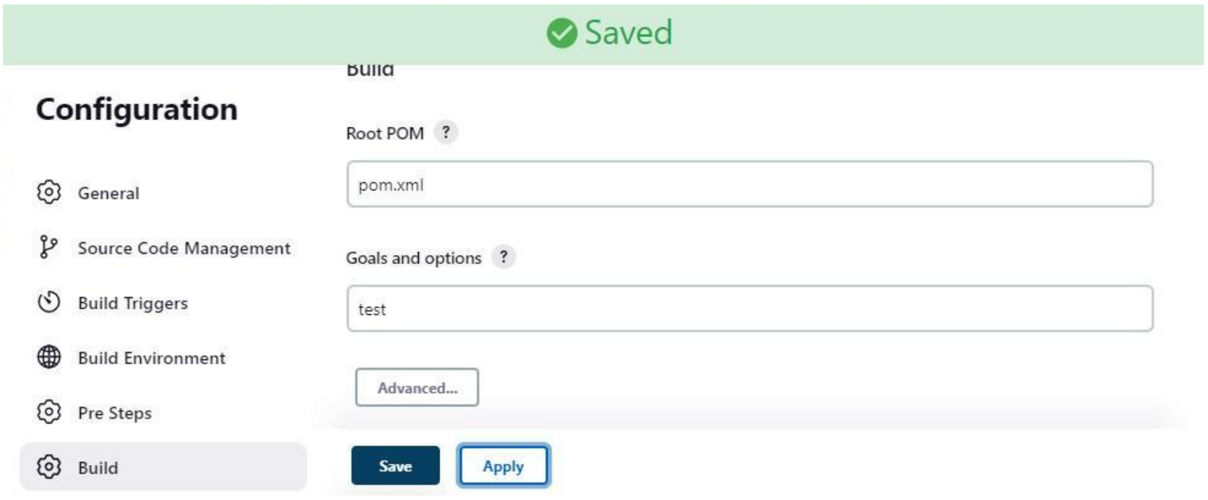
Configuration

Build

Root POM
pom.xml

Goals and options
test

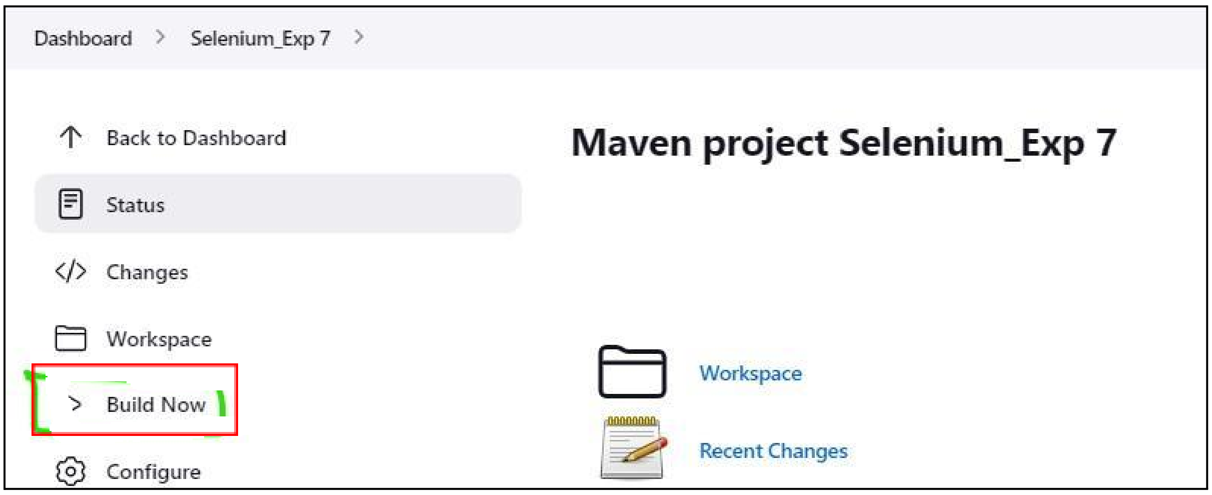
6. Now Apply and Save the changes

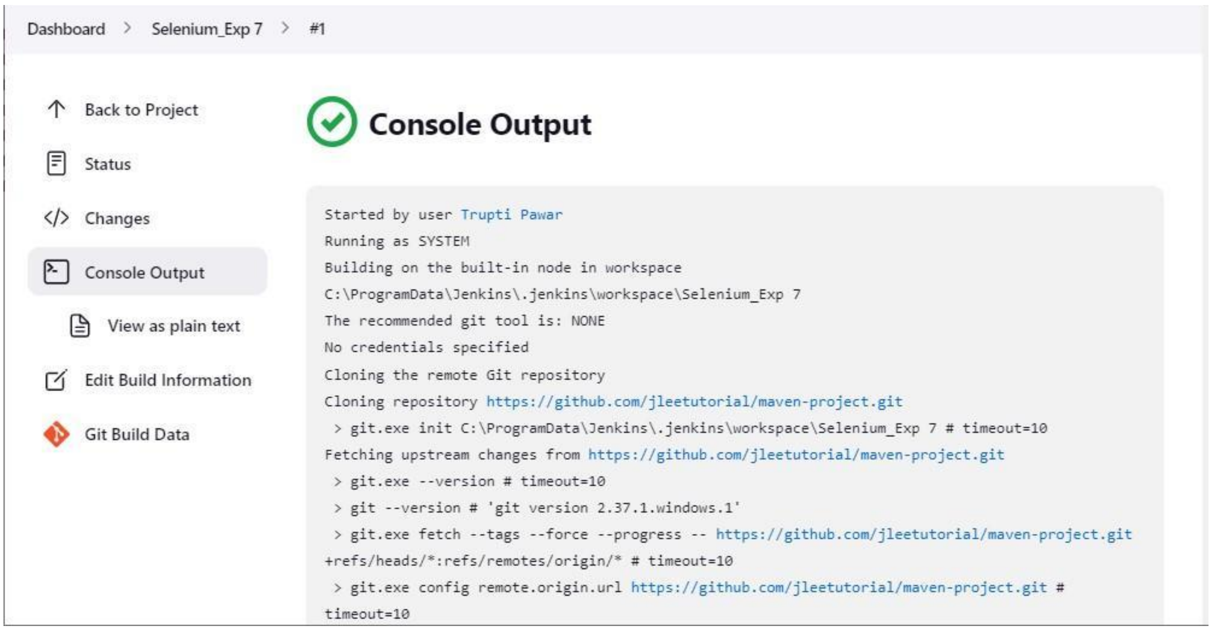


Root POM: pom.xml

Goals and options: test

7. To check the output, click on Build Now. Then click on Console Output





```
Started by user Trupti Pawar
Running as SYSTEM
Building on the built-in node in workspace
C:\ProgramData\Jenkins\.jenkins\workspace\Selenium_Exp 7
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/jleetutorial/maven-project.git
 > git.exe init C:\ProgramData\Jenkins\.jenkins\workspace\Selenium_Exp 7 # timeout=10
Fetching upstream changes from https://github.com/jleetutorial/maven-project.git
 > git.exe --version # timeout=10
 > git --version # 'git version 2.37.1.windows.1'
 > git.exe fetch --tags --force --progress -- https://github.com/jleetutorial/maven-project.git
+refs/heads/*:refs/remotes/origin/* # timeout=10
 > git.exe config remote.origin.url https://github.com/jleetutorial/maven-project.git #
timeout=10
```

8. This is the final Status

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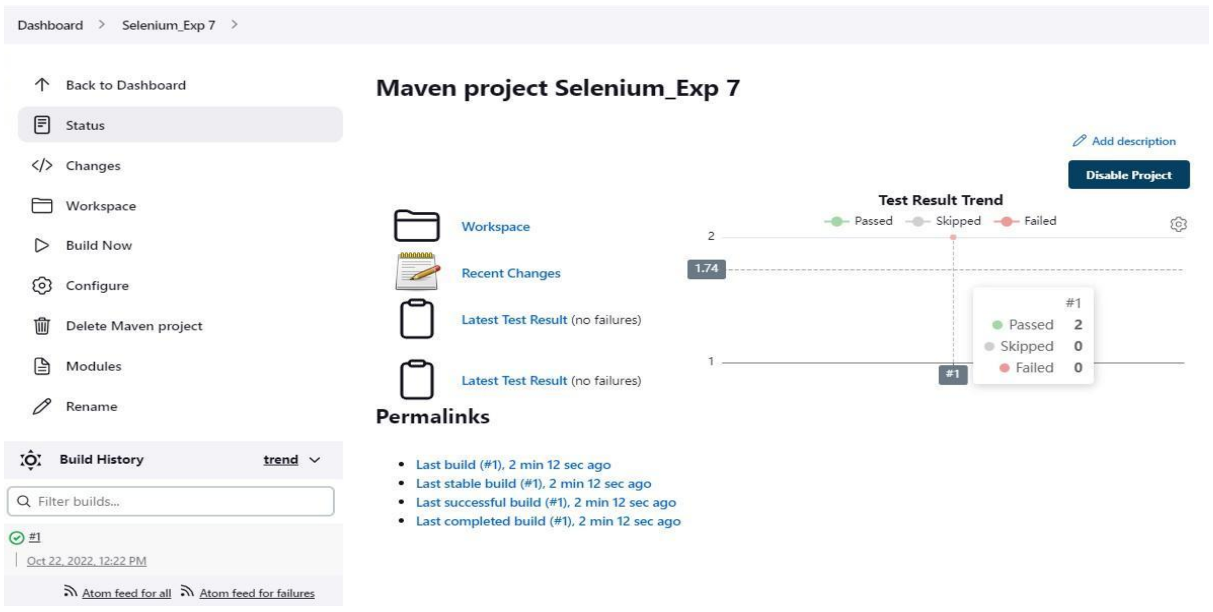
Dashboard > Selenium_Exp 7 >

Back to Dashboard
Status
Changes
Workspace
Build Now
Configure
Delete Maven project
Modules
Rename

Build History trend

Filter builds...

#1
Oct 22, 2022, 12:22 PM

Atom feed for all Atom feed for failures

Maven project Selenium_Exp 7

Add description
Disable Project

Workspace
Recent Changes
Latest Test Result (no failures)
Latest Test Result (no failures)

Test Result Trend

Permalinks

- Last build (#1), 2 min 12 sec ago
- Last stable build (#1), 2 min 12 sec ago
- Last successful build (#1), 2 min 12 sec ago
- Last completed build (#1), 2 min 12 sec ago

Conclusion:

From the above experiment,it is concluded that we successfully setup and ran Selenium Tests in Jenkins using Maven. In this experiment we examined the importance of Selenium and Jenkins to test Software Application. And hence with this experiment, we have achieved the Lab Outcome Four (LO4).

POs Achieved: PO1, PO5, PO12