

Roll No: 67

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### PRACTICAL : 7

Aim: To Setup and RUN Selenium Test IN JENKINS  
<MAVEN>

Problem STATEMENT:

The problem is to Configure a Jenkins build job that uses <Maven> and Selenium to run automated tests for web application.

Theory:

Selenium is an open Source Automation testing tool that is widely used to automate web browsers for testing web applications. It supports a range of Programming languages such as Java, python, C# and Ruby and can run on different OS like windows, Mac and Linux. Selenium provides a suite of tools that enables developers and testers to write automated test Scripts, which can then be executed against a web application.

Selenium Consist of Several Components:

1) Selenium IDE:

A Firefox Add-on that records user action and generate test scripts.

2) Selenium Web Driver

A library that provides a programming interface to control the browser and perform operations such as clicking buttons, filling out forms and navigating between pages.

3) Selenium Grid:

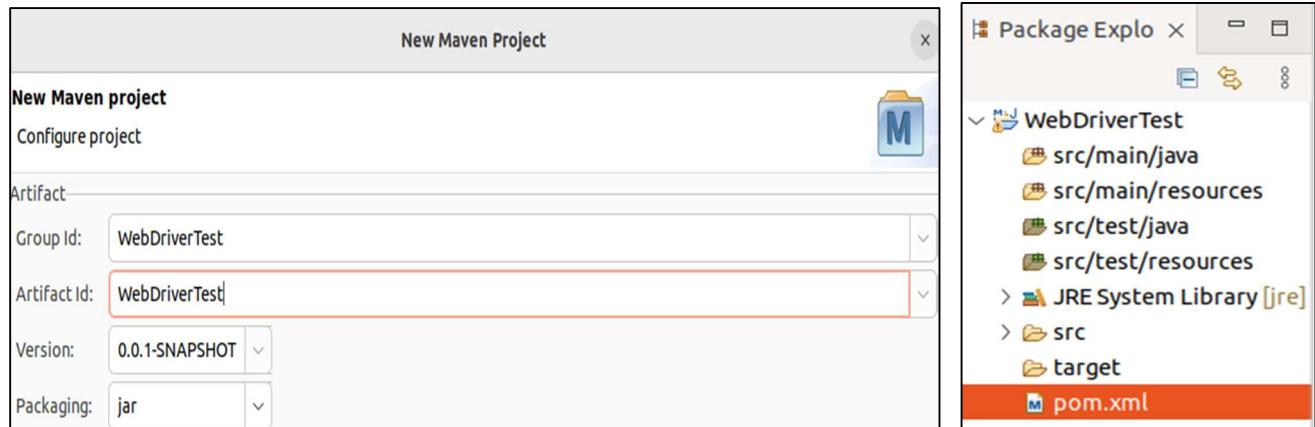
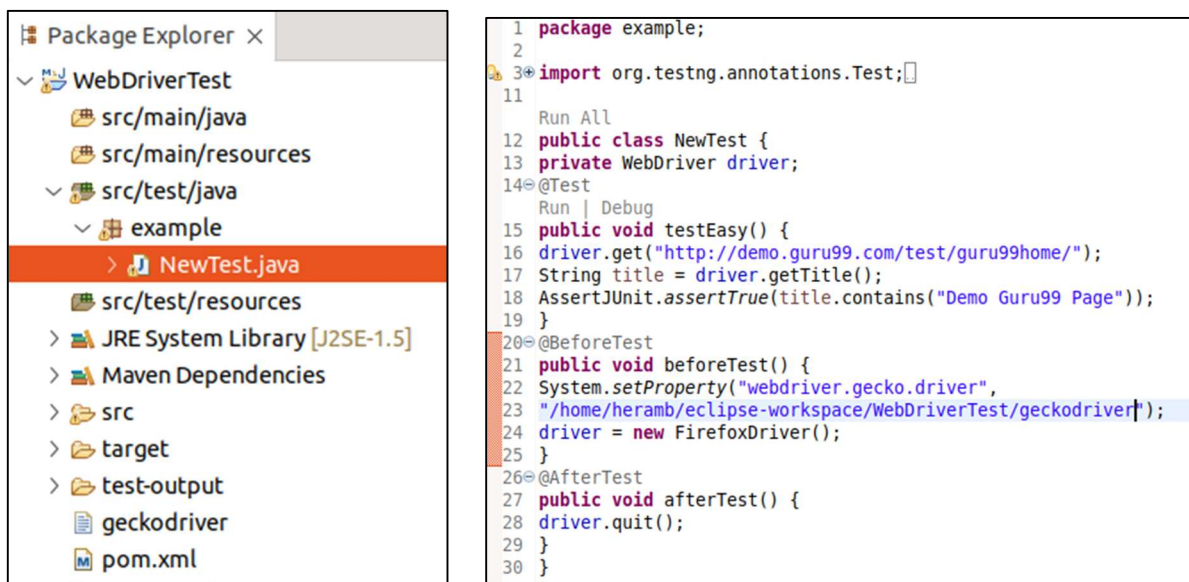
A tool that allows users to run tests on multiple browser and platform simultaneously.

Selenium is popular among developers and testers due to its versatility, flexibility and ease of use. It can be used for functional testing, regression testing and load testing of web applications. Selenium allows developers to write test scripts in their preferred programming language and can be integrated with testing frameworks like JUnit, TestNG. Overall Selenium is a powerful tool that helps to ensure the quality and reliability of web applications.

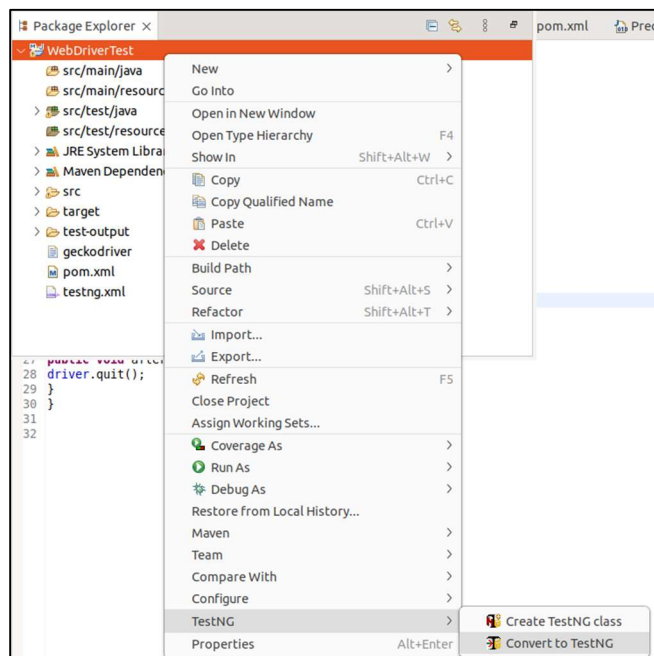
Conclusion:

Thus we have learnt about Selenium its benefits and how to use it with a ~~example~~ project in Jenkins for automated testing.



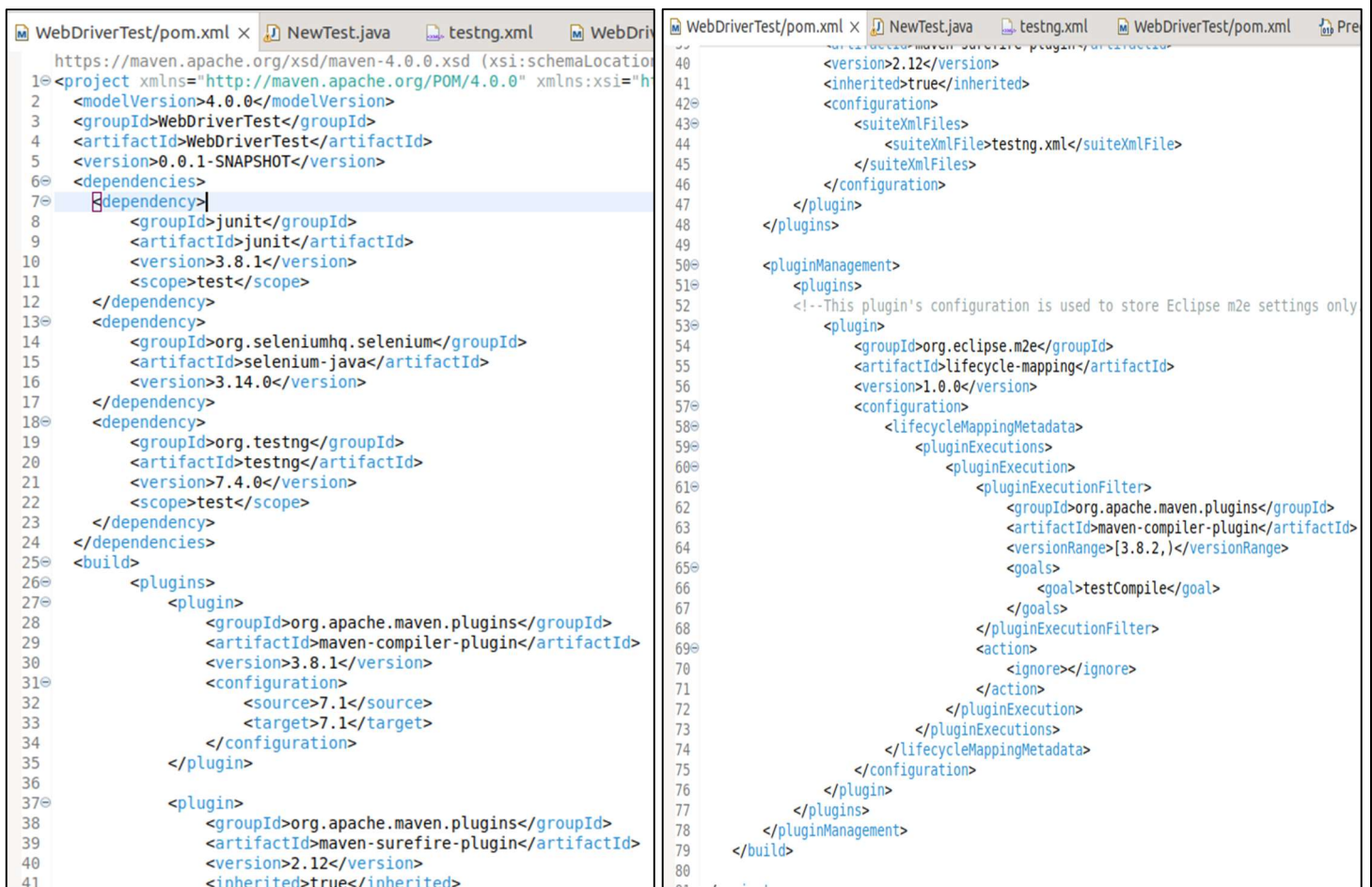
**Practical Output:****Pre-Requsite:** Eclipse With M2E & TestNg plugin, geckoDriver**Creating A Maven Project in Eclipse:****Creating A Package And Creating A Java File In It:**

## Creating A TestNg.xml File:

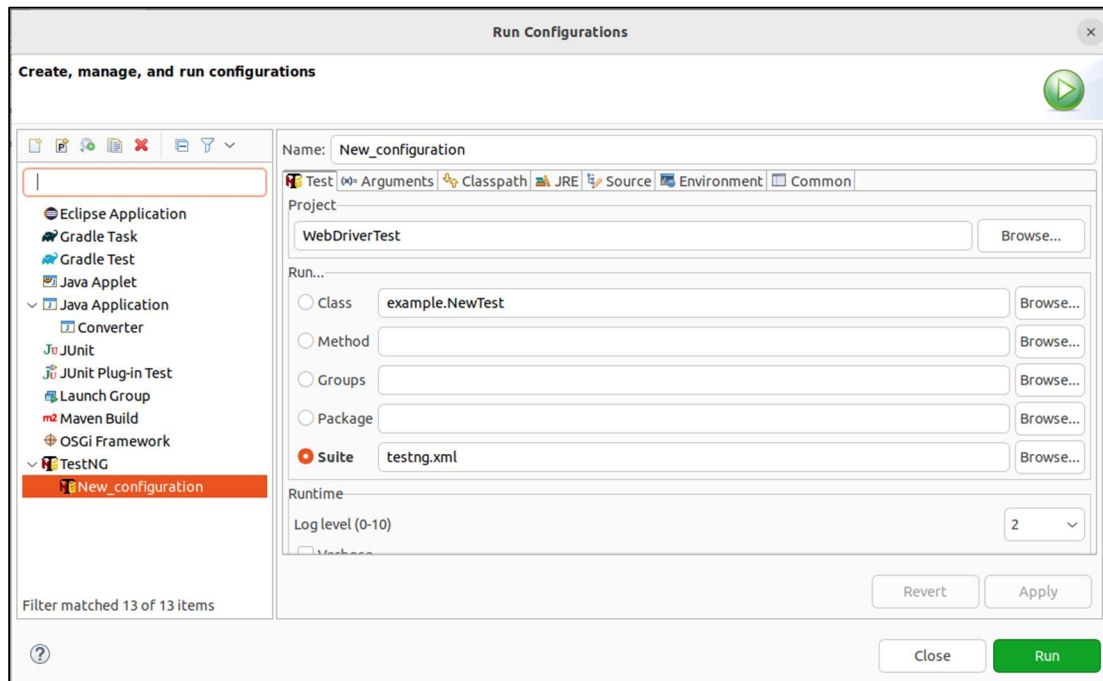


```
https://testng.org/testng-1.0.dtd (doctype)
1 <?xml version="1.0" encoding="UTF-8"?>
2 <!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd">
3 <suite name="Suite">
4   <test thread-count="5" name="Test">
5     <classes>
6       <class name="example.NewTest"/>
7     </classes>
8   </test> <!-- Test -->
9 </suite> <!-- Suite -->
10
```

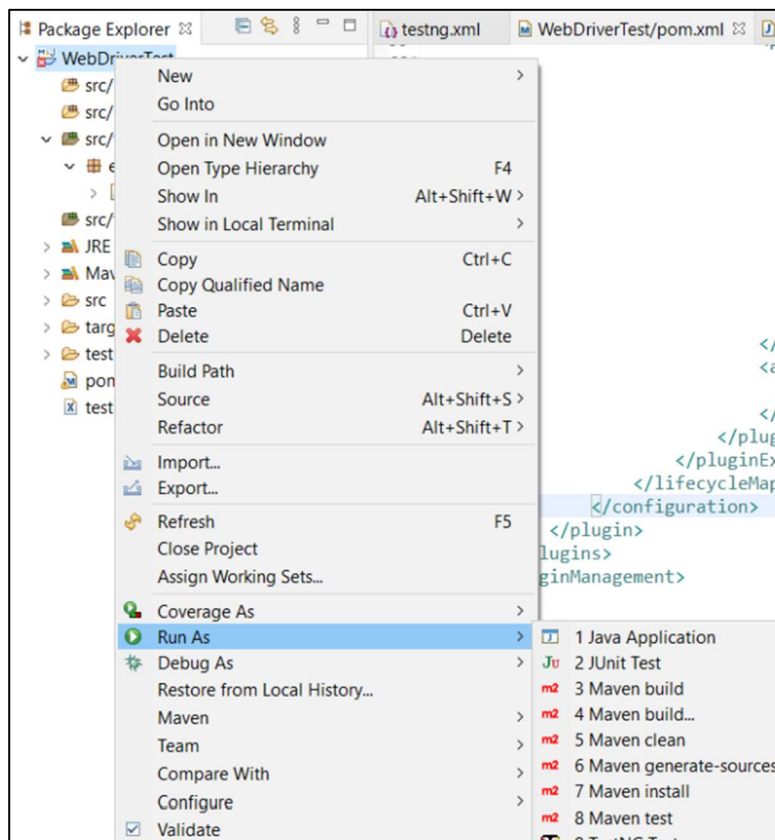
## Pom.Xml:



## Run>> Run Configuration>> Run



## Running As Maven Test:



## Setting Up Selenium on Jenkins:

**Jenkins**

Dashboard >

New Item

People

Build History

Manage Jenkins

My Views

Lockable Resources

New View

### Enter an item name

Heramb\_

» Required field



**Freestyle project**  
This is the central feature of Jenkins. Jenkins will build your project, combining any SC

**Configure>> General >>Advance>>Use Custom Workspace**

<add path to pom.xml in Directory option>

☐ Block build when upstream project is building ?

☐ Block build when downstream project is building ?

☒ Use custom workspace ?


Directory

/home/heramb/eclipse-workspace/WebDriverTest/pom.xml

Display Name ?

☐ Keep the build logs of dependencies ?

## Build Now:

**Jenkins**

Dashboard > Heramb > #10

Status


</> Changes

Console Output

Edit Build Information


Delete build '#10'

Previous Build

 **Build #10 (18 Mar 2023, 12:40:49)**

</>


No changes.




Started by user [Heramb Ramakant Pawar](#)


Heramb #10 Console [Jen x +]


[←](#) [→](#) [↻](#) [🔒](#) localhost:8080/job/Heramb/10/console


 **Jenkins**


Dashboard > Heramb > #10 > Console Output


 Status


 Changes


 **Console Output**

 View as plain text

 Edit Build Information

 Delete build '#10'

 Previous Build

 **Console Output**

Started by user [Heramb Ramakant Pawar](#)  
Running as SYSTEM  
Building in workspace /home/heramb/eclipse-workspace/WebDriverTest/pom.xml  
Finished: SUCCESS