Jenkins:

Free and open source

It is available in the form of war file.

Download Jenkins war file latest version.

How to install Jenkins?

Website: <https://jenkins.io/download/,download> latest release

Unzip the folder

Form cmd🡪run Java –jar Jenkins.war

Or

Open Jenkins folder where Jenkins file are extracted,and **click jenkins.msi**

Install it completely

And go to path C:\Program Files (x86)\Jenkins\secrets

First time loginpassword will be provided here.

Create username and password and click save and continue.

jenkins account details

Username :ThejaswiniRaj

Password: thejaswini03.

full name:Jansi Lakshmanan

email:jansilakshmanan90@gmail.com

How to access Jenkins?

[**http://localhost:8080-->link**](http://localhost:8080--%3elink)

**gives Jenkins dashboard.**

**People option🡪to create multiple users.**

**Steps:**

**1.create maven plugin for Jenkins.**

**Left panel🡪jenkins🡪manage Jenkins🡪manage plugins🡪available🡪filter🡪maven🡪select all the maven options listed.-->download and install after restart.-->restart Jenkins w**hen installation is complete and no jobs are running

2.create new job🡪enter a proj name and select maven

3.options:

i) Source code management🡪none

Since we have not pushed our code into GIT.

ii)don’t change anything anywhere except in Build🡪”Jenkins needs to know where maven is installed🡪the tool configuration🡪Add maven🡪give a maven name 🡪click apply and save and close the tab.

4.Build🡪give the path of pom.xml file of our maven proj created in eclipse in

Root POM🡪remove pom.xml and give the complete path of pom.xml

5.goals and options: clean install

Whenever maven is triggered a build to perform,first it will clean it and install and tyen execute it.

6.Post steps:

Run regardless of build result

7.Post build actions:

We need to generate a report,but we don’t have any testing plugin listed in the option.save and apply.

So we need to install testng plugin.

8.install TestNG plugin

Manage Jenkins🡪manage plugins🡪available🡪filter🡪TestNG🡪select TestNG Result option🡪

**download and install after restart.-->restart Jenkins w**hen installation is complete and no jobs are running

9.Configure

Go back🡪select jenkin project🡪configure🡪.Post build actions🡪Publish TestNG results option in the list.

Select \*\*/testng-results.xml as default option.

\*\*🡪 indicates whatever the folder or directory available,it will pick /testng-results.xml in any directory available in workspace for the particular proj

Jenkins will create its own workspace internally,one copy of workspace will be created in Jenkins also,and in that workspace,it will search and read the testng.xml

10.save and apply

11.freecrm proj or jenkin proj is ready now

12.Trigger build now and check whether browser is launched or not.

14.very imp step:

Manage Jenkins🡪global tool config🡪jdk installations🡪

Name:JAVA\_HOME

JAVA\_HOME: C:\Program Files\Java\jdk1.8.0\_171(path to jdk)

Uncheck install automatically

Delete if any other listed JDK installations on the system.

-🡪Now build is success

Problems faced:

**1.**[org.testng.TestNGException: Cannot find class in classpath: com.facebook.qa.testcases.LoginPageTest](https://sqa.stackexchange.com/questions/36014/org-testng-testngexception-cannot-find-class-in-classpath-com-facebook-qa-test)

Solution:

Project🡪clean🡪rerun the project

Make sure you give packagename.classname in xml file.

2.build success in Jenkins but testcases are not executed.

Solution:

Install maven surefire plugin and maven compiler plugins

<build>

<plugins>

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-surefire-plugin</artifactId>

<version>3.0.0-M3</version>

<inherited>true</inherited>

<configuration>

<suiteXmlFiles>

<suiteXmlFile>testng.xml</suiteXmlFile>

</suiteXmlFiles>

</configuration>

</plugin>

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-compiler-plugin</artifactId>

<version>3.8.0</version>

<configuration>

<source>1.7</source>

<target>1.7</target>

</configuration>

</plugin>

</plugins>

</build>

--🡪all test cases will be executed and report will be generated.

Important configuration in Jenkins:

Project🡪configure

Build:

Root pom: C:\jansi\_javafiles\_2\paypal\_practice\pom.xml

Goals and options:clean install

How to configure pom.xml ?

Jenkins🡪picks testng xml suite file and then executes all the classes included there.

Flow:Jenkins🡪pom.xml🡪testng.xml configured inside surefire plugin🡪tesgng.xml(suite file)🡪run suite and classes defined inside suite.

How to create testng.xml?

Project root🡪testng.xml and then add suite name,test name and class name(package name.classname)

Note:all tags should be in lowercase

We van also add this xml in source folder also.but then,we have to give the complete directoty in pom.xml surefire plugin

How to configure testng.xml inside pom.xml?

Add this out of dependency tag inside project tag which is below <dependency/>

<build>

<plugins>

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-surefire-plugin</artifactId>

<version>2.18.1</version>

<configuration>

<suiteXmlFiles>

<suiteXmlFile>testng.xml</suiteXmlFile>

</suiteXmlFiles>

</configuration>

</plugin>

</plugins>

</build>

Note:testng.xml can be given directly without complete folder path only if it is created within project root

Use of surefire plugin in pom.xml?

To run testng.xml and execute classes inside