

# JENKINS CONFIGURATION(Integrate Maven)

## Prerequisite :

Set up Maven home and Java Home(jdk) in the system environment variables and attached the snippet below for the reference .

System variables	
Variable	Value
ComSpec	C:\WINDOWS\system32\cmd.exe
DriverData	C:\Windows\System32\Drivers\DriverData
JAVA_HOME	C:\Program Files\Java\jdk-13.0.2
Maven_Home	B:\Selenium\Softwares\apache-maven-3.6.3-bin\apache-maven-...


## Snippet : Environment Variables

## Setup:

1. Download the Jenkins war file (Generic war file from the official website)  
Navigate to war file directory in Terminal and then give the below command  
Java -jar Jenkins.war --httpPort=8080  
Note : httpPort is our choice  
We should see Jenkins is fully up and running in the terminal

```
text.support.StaticWebApplicationContext@786acfd2]: org.springframework.beans.factory.support.DefaultListableBeanFactory@26c1ce52
2020-11-23 12:44:40.274+0000 [id=29] INFO o.s.b.f.s.DefaultListableBeanFactory#preInstantiateSingletons: Pre-instantiating sing
tory.support.DefaultListableBeanFactory@26c1ce52: defining beans [authenticationManager]; root of factory hierarchy
2020-11-23 12:44:40.569+0000 [id=29] INFO o.s.c.s.AbstractApplicationContext#prepareRefresh: Refreshing org.springframework.web
ntext@810dd83: display name [Root WebApplicationContext]; startup date [Mon Nov 23 13:44:40 CET 2020]; root of context hierarchy
2020-11-23 12:44:40.569+0000 [id=29] INFO o.s.c.s.AbstractApplicationContext#obtainFreshBeanFactory: Bean factory for applicati
text.support.StaticWebApplicationContext@810dd83]: org.springframework.beans.factory.support.DefaultListableBeanFactory@ae2224e
2020-11-23 12:44:40.572+0000 [id=29] INFO o.s.b.f.s.DefaultListableBeanFactory#preInstantiateSingletons: Pre-instantiating sing
tory.support.DefaultListableBeanFactory@ae2224e: defining beans [filter,legacy]; root of factory hierarchy
2020-11-23 12:44:40.786+0000 [id=36] INFO jenkins.InitReactorRunner$1#onAttained: Completed initialization
2020-11-23 12:44:40.848+0000 [id=23] INFO hudson.WebAppMain$3#run: Jenkins is fully up and running
```

Hit URL: <http://localhost:8080/login> in browser



Welcome to Jenkins!

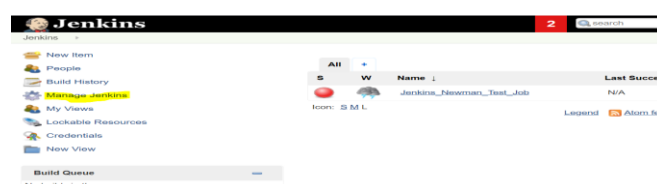
Username

Password

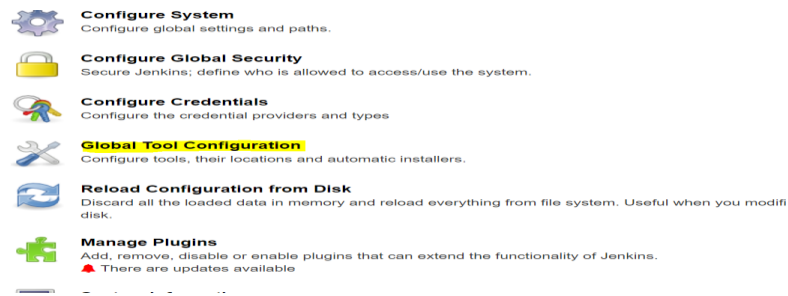
☐ Keep me signed in

## Snippet : Jenkins Up and Running

2. Login to Jenkins with user credentials and it takes to Jenkins dashboard (first time it asks to set up credentials).
3. Click on "Manage Jenkins" and it takes us to manage tab.

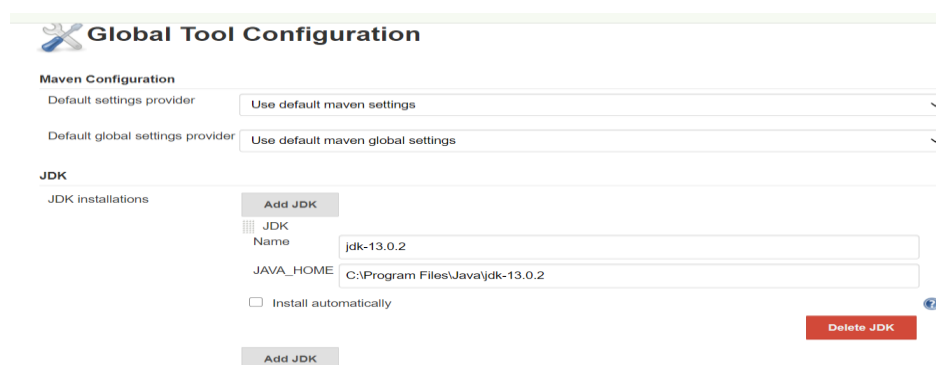


4. click to “Global Tool Configuration” in the manage Jenkins tab.



### Snippet : Manage Jenkins

5. Provide JDK and Maven Home path in the configuration

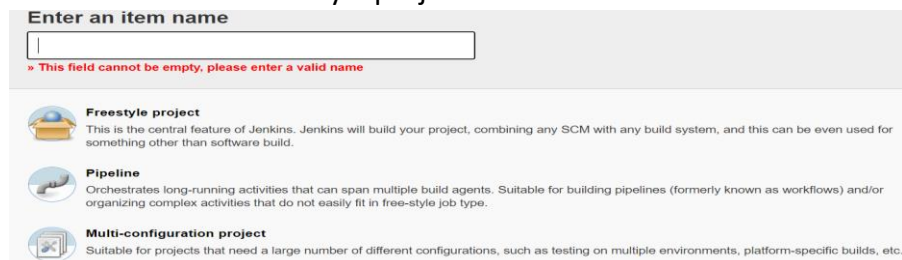


### Snippet : JDK Home



### Snippet : Maven Home

6. Set Up Jenkins Job by clicking on “New Item” in the dashboard.  
Give it a name and select “Freestyle project”

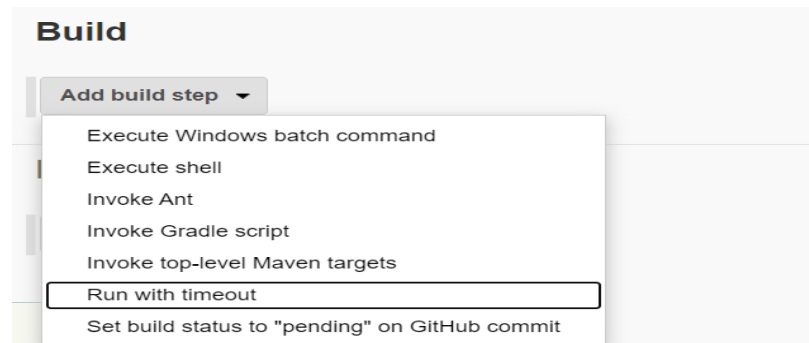


### Snippet : Jenkins Job

7. Give the source code path (e.g git ,svn , local repo)

Snippet : Source code

8. Click on Add Build Step drop down and select “invoke top -level maven targets”.
- 9.



Snippet : Maven Commands

10. Select the maven which is configured in step 5 and give goals .  
e.g. mvn clean install , mvn test
11. Add post build actions and click on save .

Snippet : Pre and Post Build

12. Once the set up is done click on build now and it triggers.

Note : Build Success is only when all the TC's in suite are passed.

```
[INFO] >>> maven-source-plugin:3.2.1:jar (attach-sources) > generate-sources @ UI_Automation >>>
[INFO]
[INFO] <<< maven-source-plugin:3.2.1:jar (attach-sources) < generate-sources @ UI_Automation <<<
[INFO]
[INFO] --- maven-source-plugin:3.2.1:jar (attach-sources) @ UI_Automation ---
[INFO] Building jar: C:\Users\bhara\.jenkins\UI_Automation\target\UI_Automation-0.0.1-SNAPSHOT-sources.jar
[INFO]
[INFO] --- maven-install-plugin:2.4:install (default-install) @ UI_Automation ---
[INFO] Installing C:\Users\bhara\.jenkins\UI_Automation\target\UI_Automation-0.0.1-SNAPSHOT.jar to
C:\Users\bhara\.m2\repository\UI_Automation\UI_Automation\0.0.1-SNAPSHOT\UI_Automation-0.0.1-SNAPSHOT.jar
[INFO] Installing C:\Users\bhara\.jenkins\UI_Automation\pom.xml to
C:\Users\bhara\.m2\repository\UI_Automation\UI_Automation\0.0.1-SNAPSHOT\UI_Automation-0.0.1-SNAPSHOT.pom
[INFO] Installing C:\Users\bhara\.jenkins\UI_Automation\target\UI_Automation-0.0.1-SNAPSHOT-sources.jar to
C:\Users\bhara\.m2\repository\UI_Automation\UI_Automation\0.0.1-SNAPSHOT\UI_Automation-0.0.1-SNAPSHOT-sources.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 05:44 min
[INFO] Finished at: 2020-11-23T15:24:25+01:00
[INFO] -----
Finished: SUCCESS
```

### Snippet : Jenkins Console Output for build

- Click on “configure” for the project and navigate to “build Triggers” and select “Build Periodically” .

Note : As per Jenkins official rule the format is (Minutes(0-59),Hours(0-23),DayofMonth(1-31),Month(1-12), DayofWeek(0-7))

e.g. if I have to run at 1Pm every day the command is below

`* 13 * * *`

\* means run on all the possible days

**Build Triggers**

☐ Trigger builds remotely (e.g., from scripts)

☐ Build after other projects are built

☒ Build periodically

Schedule `* 13 * * *`

**⚠ Do you really mean "every minute" when you say "\* 13 \* \* \*"? Perhaps you meant "H 13 \* \* \*" to poll once per hour**

Would last have run at Monday, 23 November, 2020 at 1:59:09 pm Central European Standard Time; would next run at Tuesday, 24 November, 2020 at 1:00:10 pm Central European Standard Time.

☐ GitHub hook trigger for GITScm polling

☐ Poll SCM

### Snippet : Scheduling jobs