Creating Maven Project Using Jenkins

Step 1:

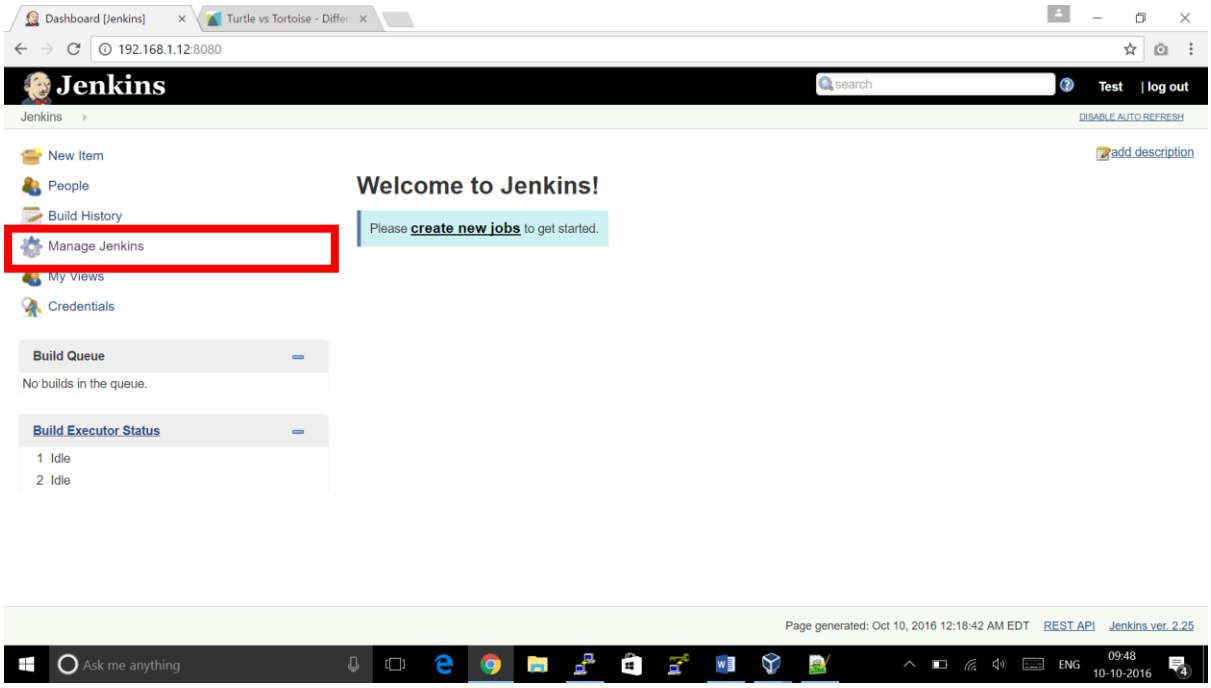
Install Maven

- Maven Requires Java to be installed on the box and set JAVA_HOME is set to the right path
- Maven needs to be installed in Jenkins Box for Jenkins to kick of Maven builds (Default Installation does not require Step 2 since it automatically detects the maven in /usr/bin/mvn as Default)
- Maven can be downloaded and install as well, if so follow the step 2 to configure Maven
- You can have multiple versions of Maven, To do that follow the download and install options and configure each version by repeating step 2 and use the required version in your job
- Option 1: Default Install Maven using Package
    - $ yum install -y maven2
- Option 2: Install Maven using downloading and Extracting
- Download a Maven version here
    - https://maven.apache.org/download.cgi
- Install a Different version of Maven
    - Ensure `JAVA_HOME` environment variable is set and points to your JDK installation
    - Extract distribution archive in any directory depends on which file you download
        - `$ tar xzvf apache-maven-3.3.9-bin.tar.gz`
        - `$ unzip apache-maven-3.3.9-bin.z`

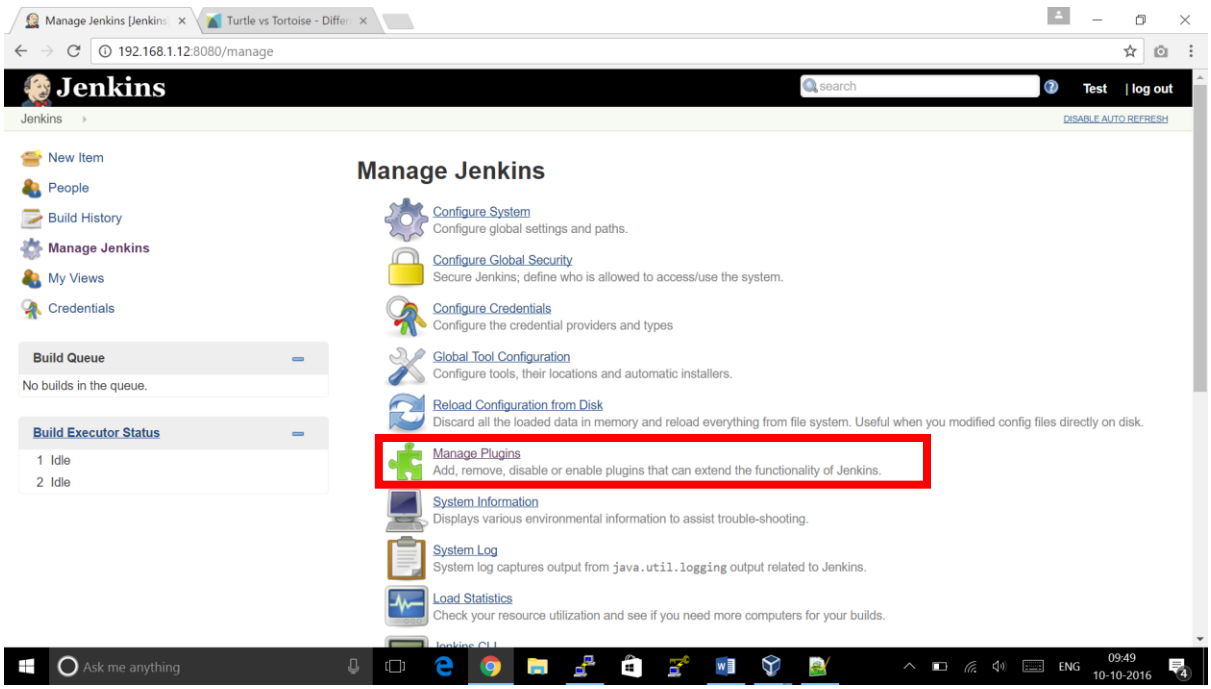
Step 2: Setting up Jenkins and Maven

Step2a: Install Required Plugins

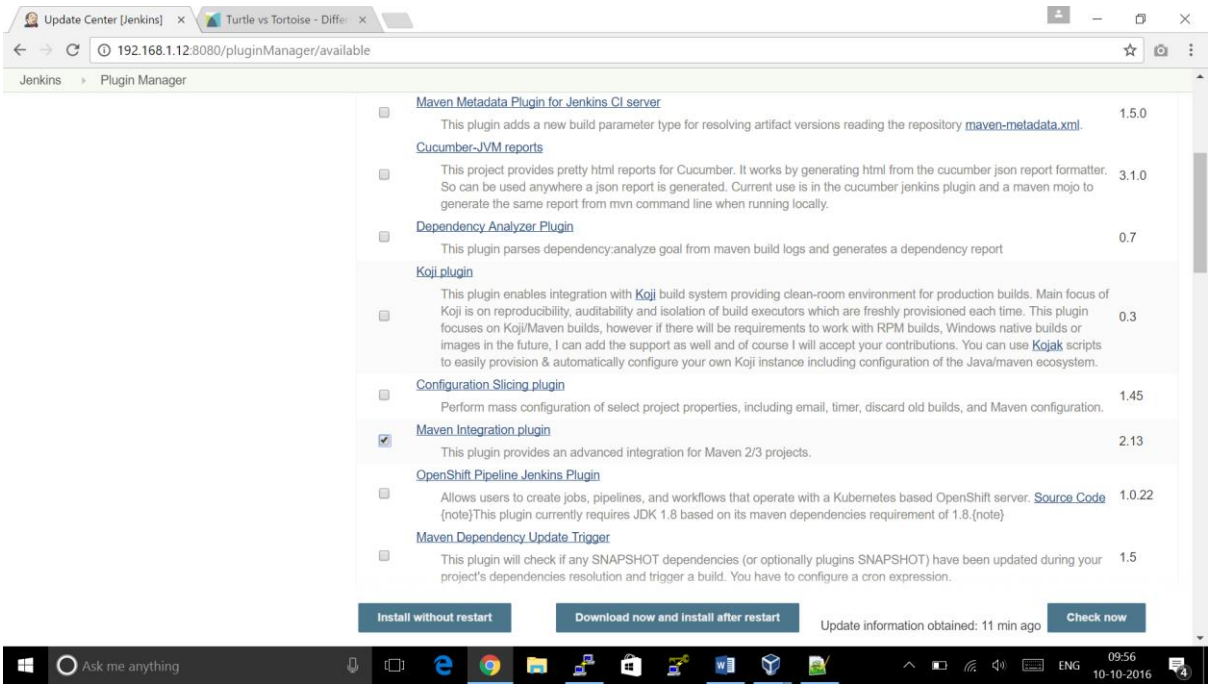
In the Jenkins dashboard (Home screen), click Manage Jenkins from the left-hand side menu.

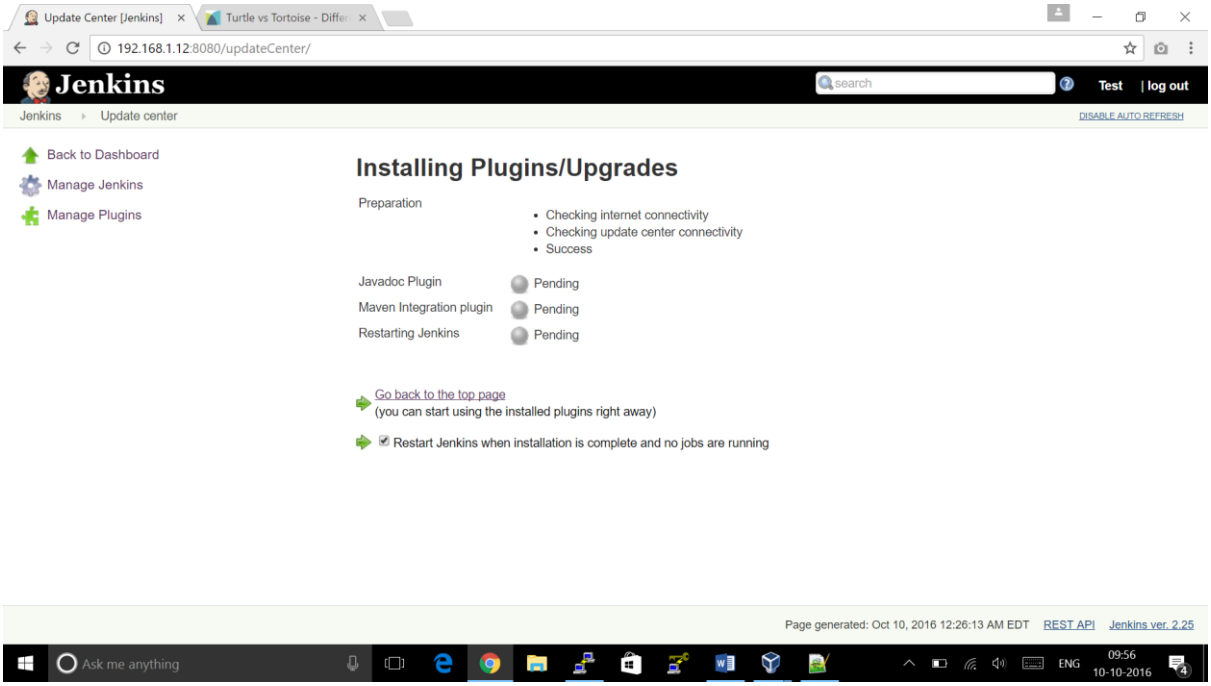


Then, click on ‘Manage Plugin’ from the right hand side.

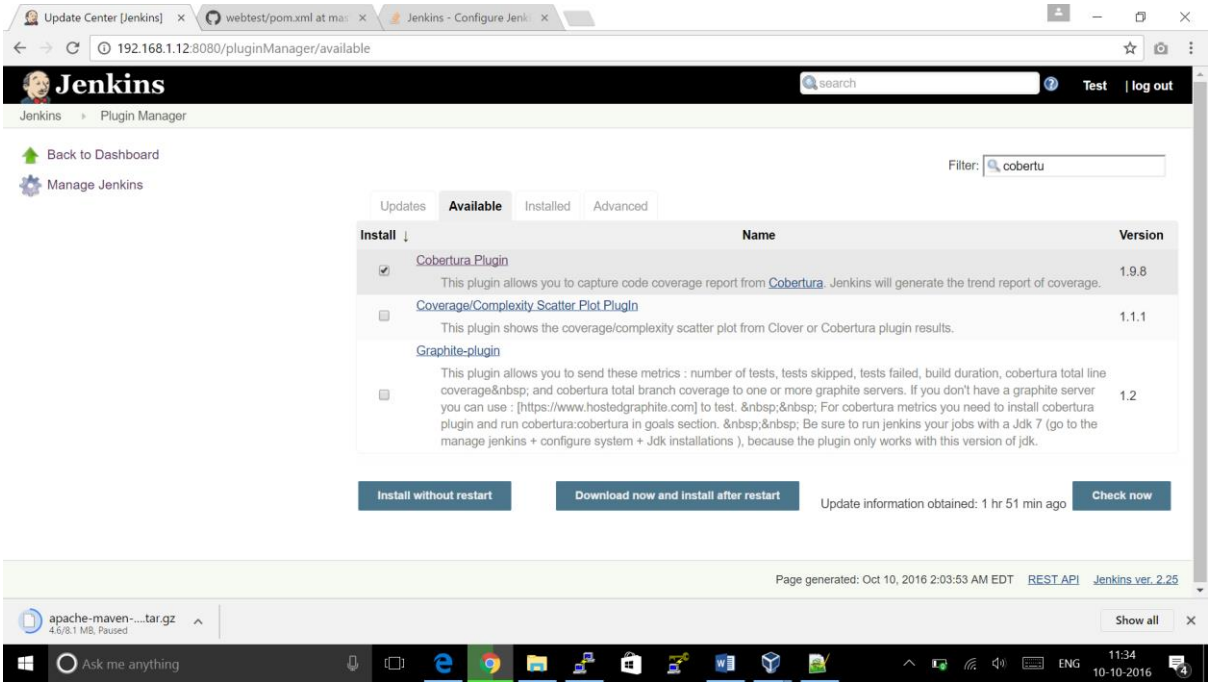


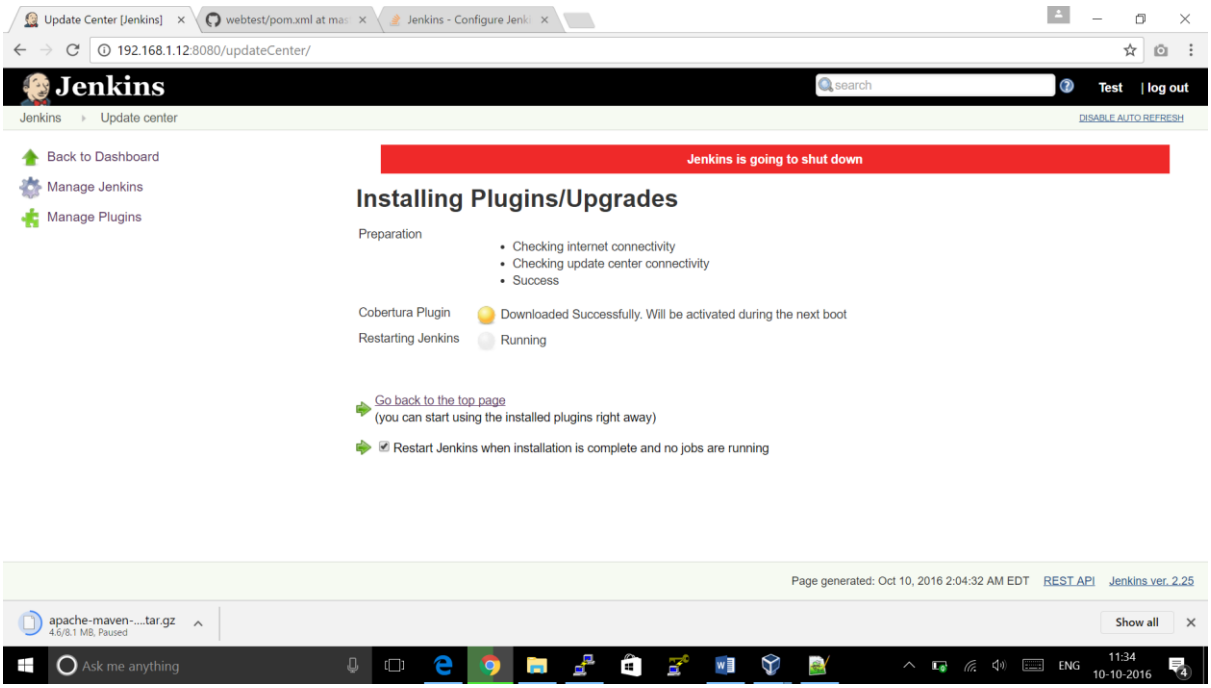
Choose Maven Integration Plugin





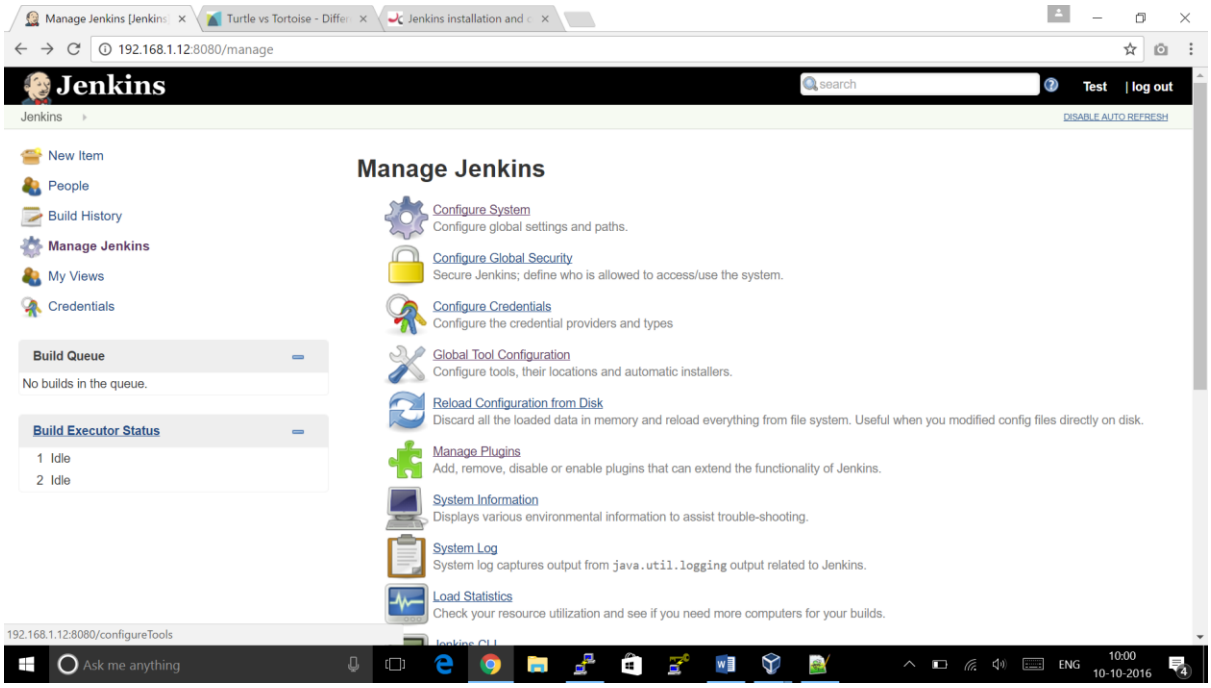
Install Cobertura Code Coverage Plugin



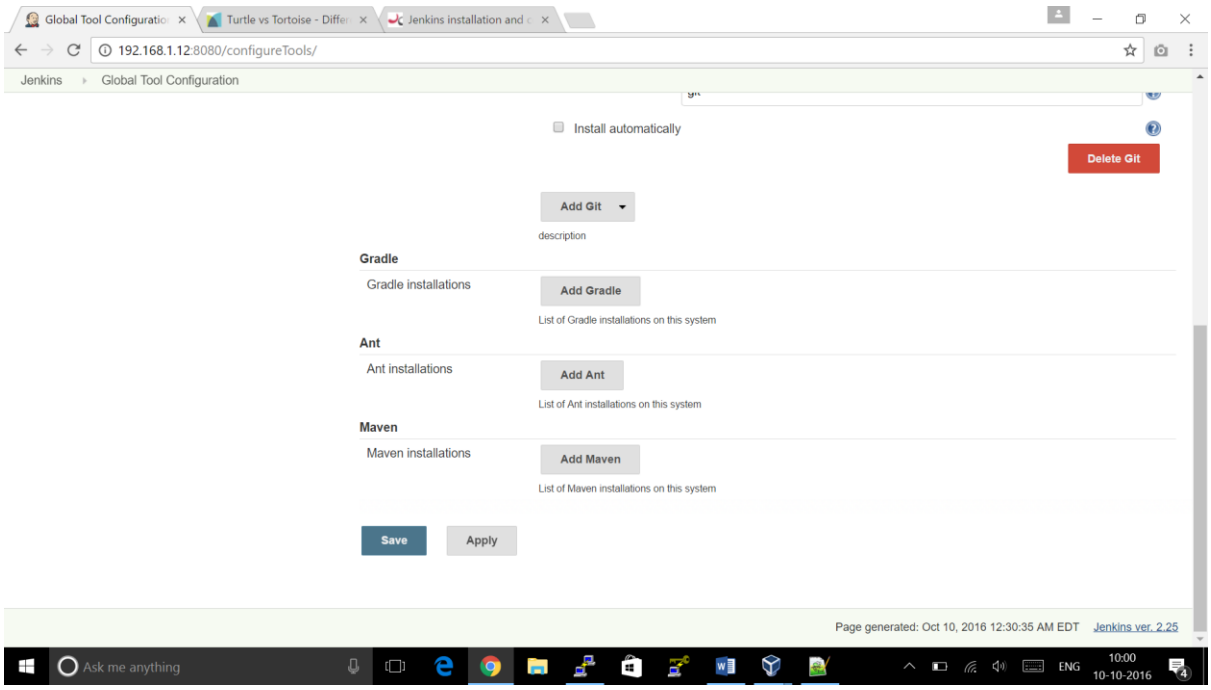


Step 2b: Configure Maven

In the Manage Jenkins → “Global Tool Configuration”



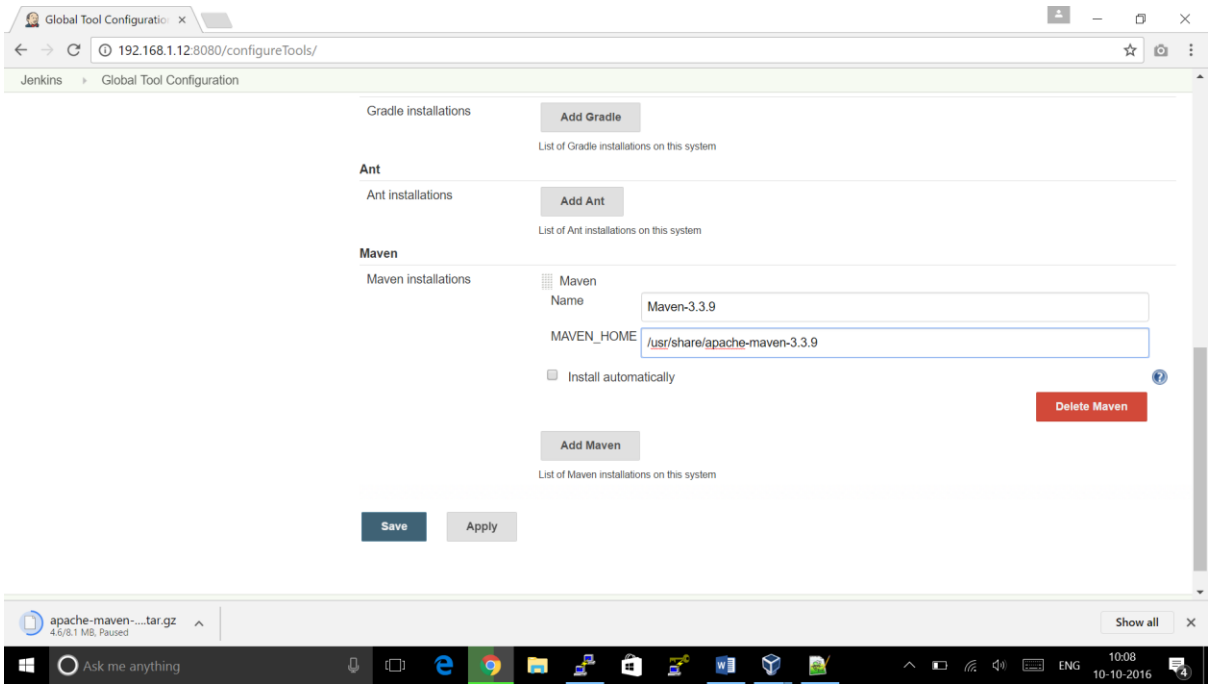
scroll down till you see the Maven section and then click on the ‘Add Maven’ button.



Uncheck the ‘Install automatically’ option.

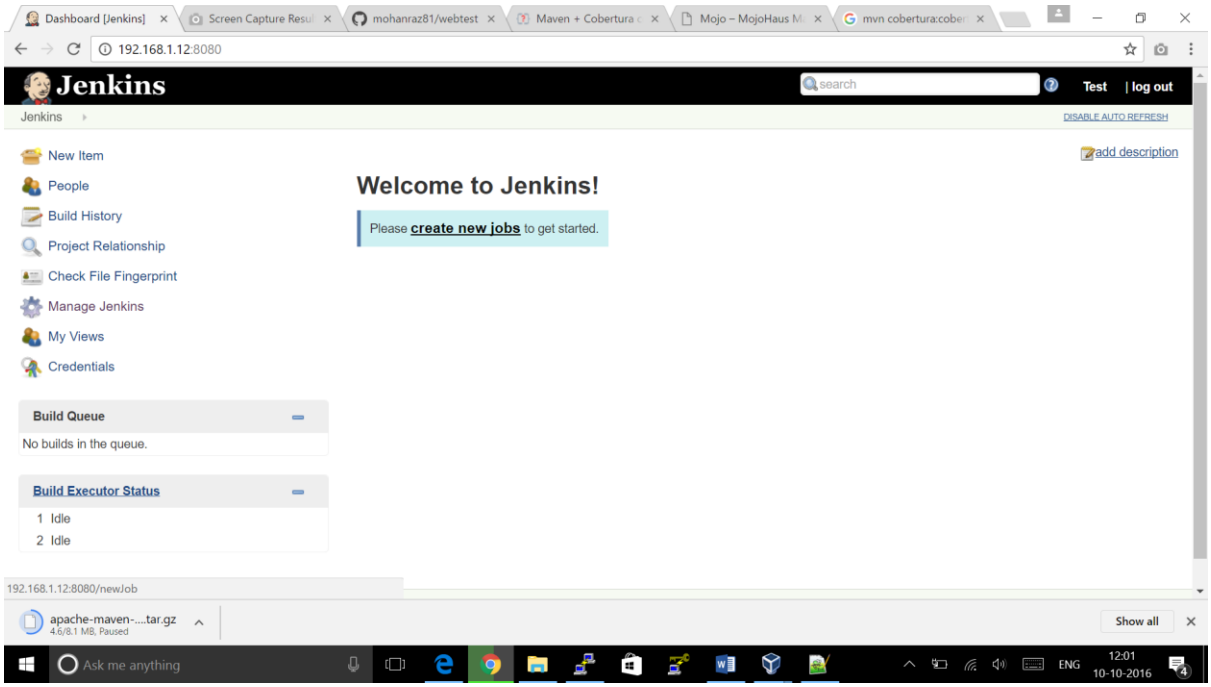
Add any name for the setting and the location of the MAVEN_HOME where you extracted in Step1 Option 2

Then, click on the ‘Save’ button at the end of the screen.

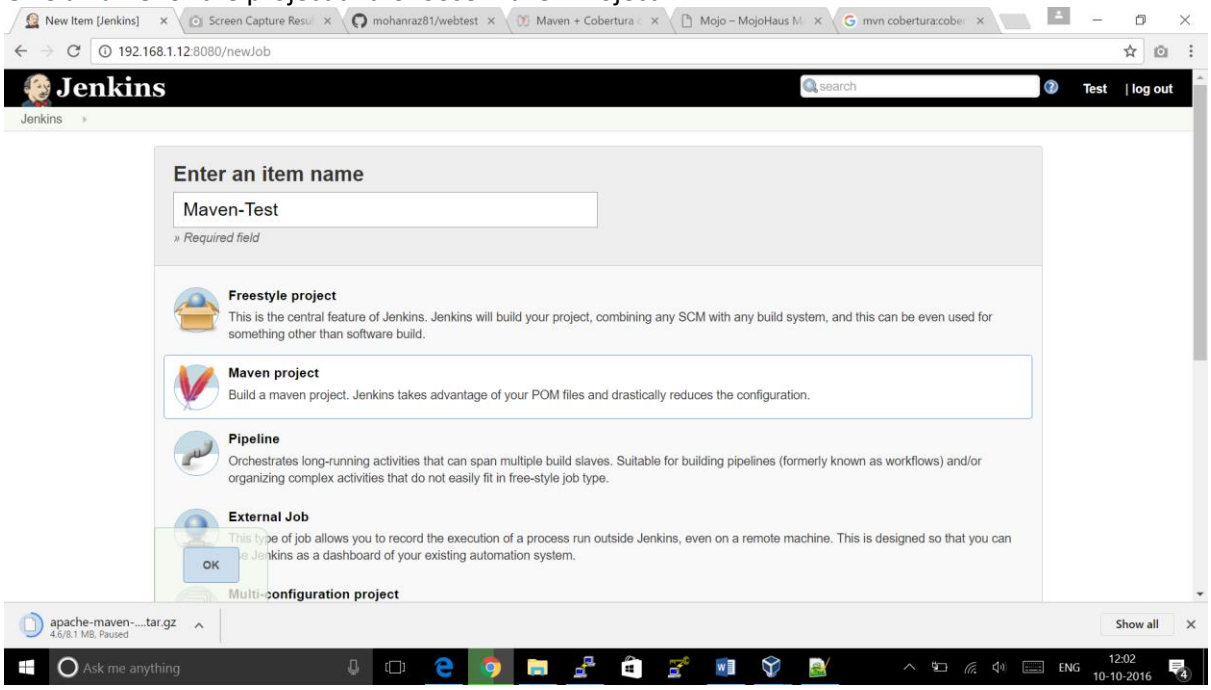


Step 3 Create a Maven Project

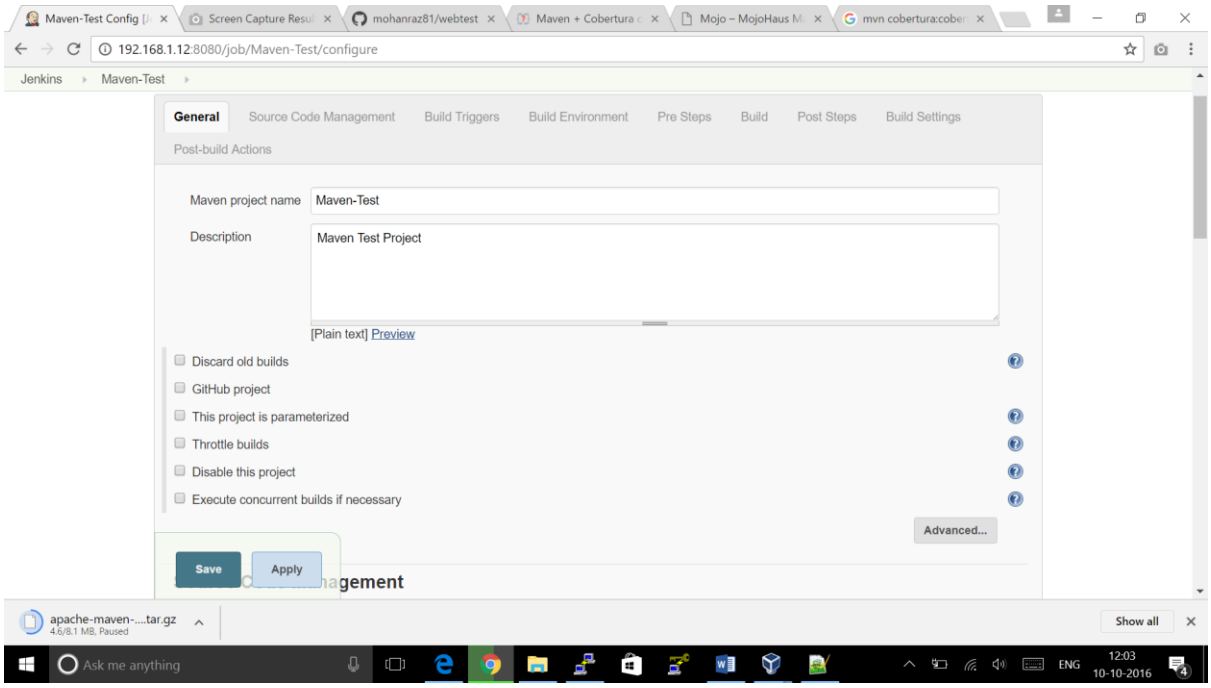
Create New Jobs



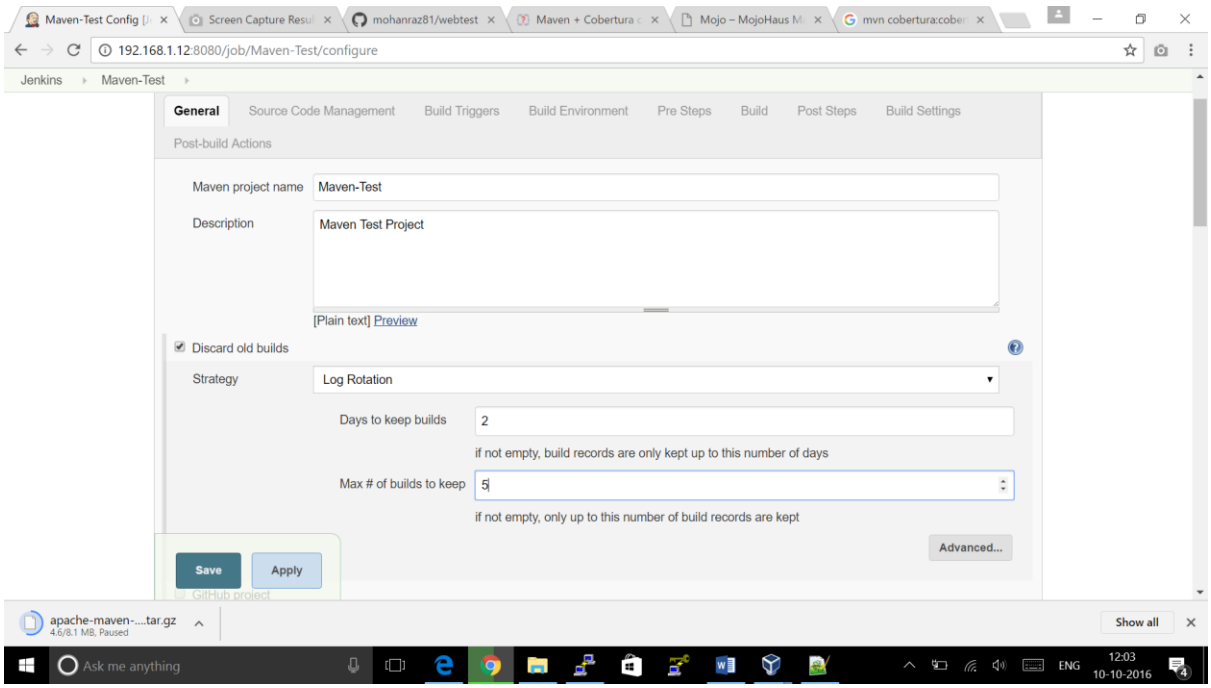
Give a name for the project and Choose Maven Project



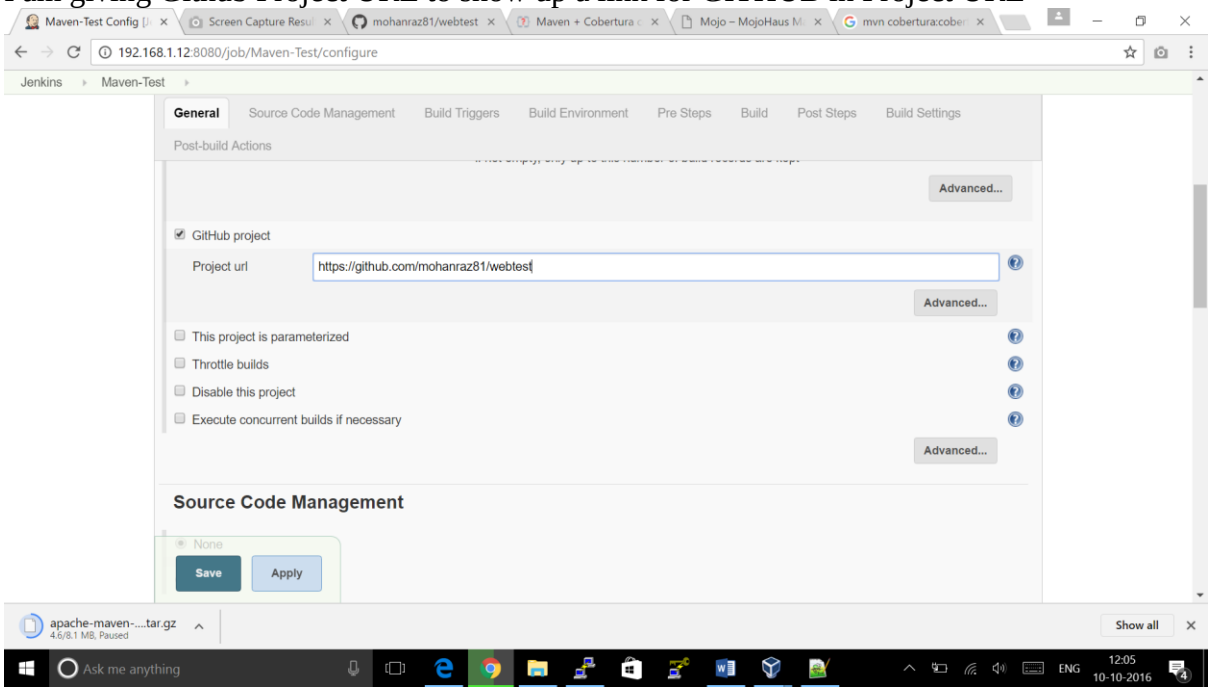
Give Desription about the Project



Discard Old Builds I choose to retail 2 days of 5 builds which ever is earlier

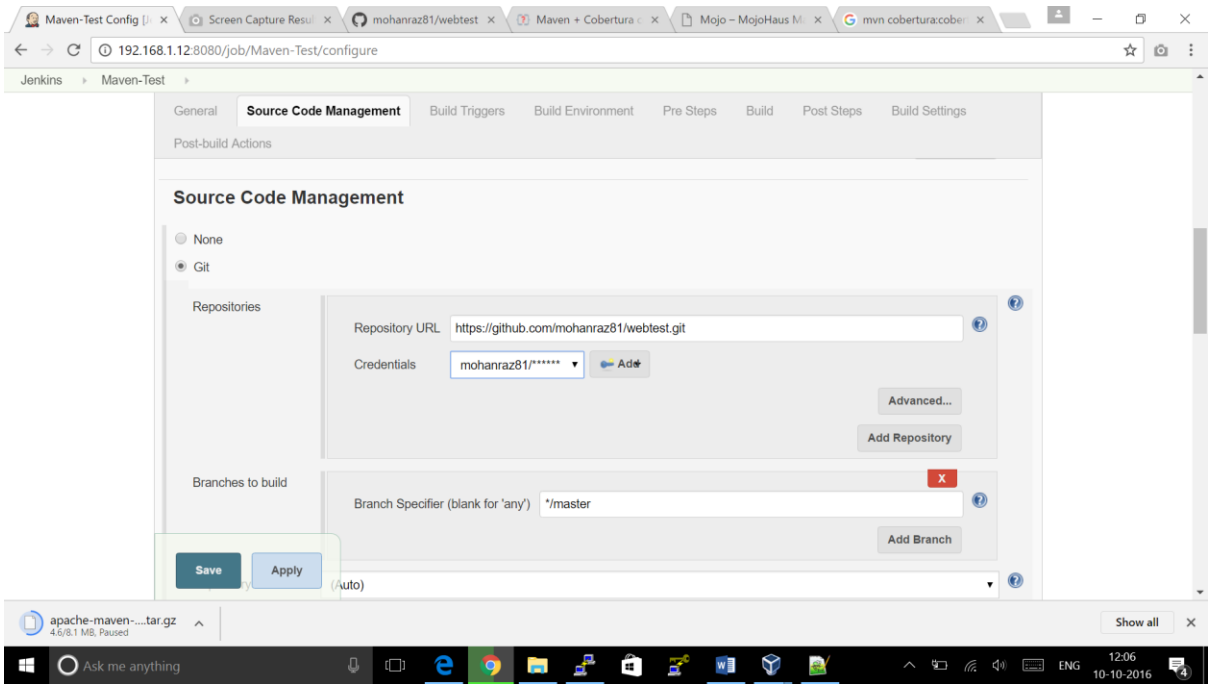


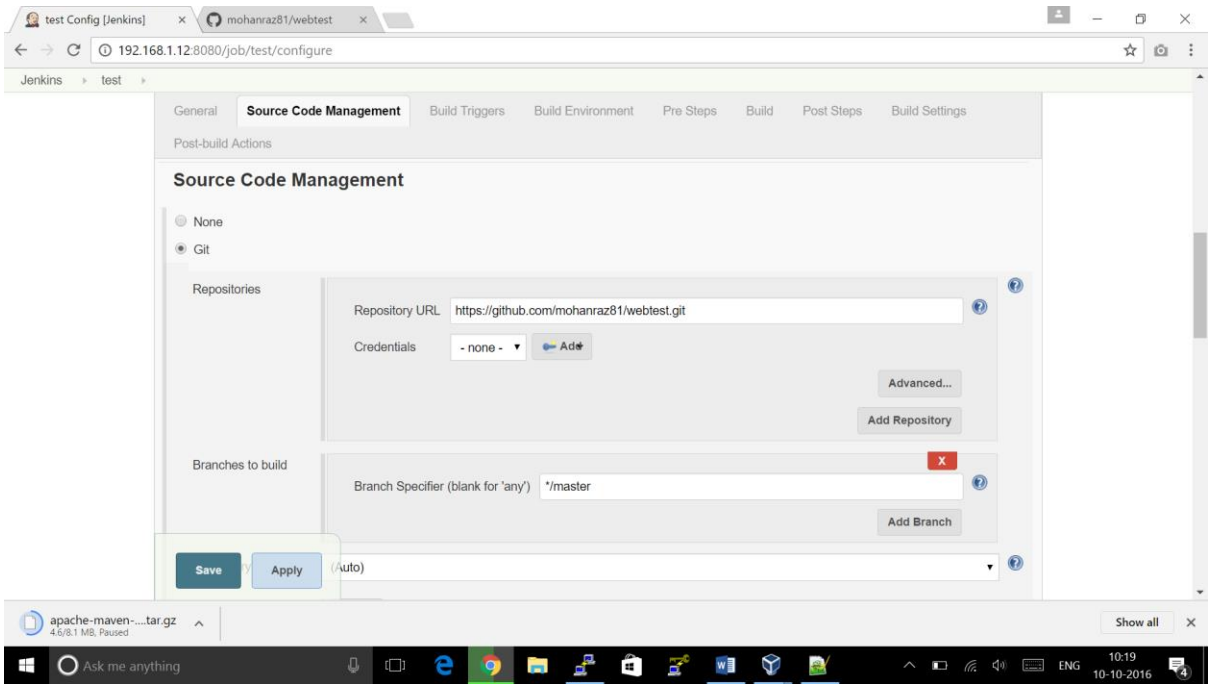
I am giving Github Project URL to show up a link for GITHUB in Project URL



Adding the GIT repository to build

Git Repository: GIT Clone URL (My Example project: https://github.com/mohanraz81/webtest.git)
Add GIT username and project by clicking Add
Branch to build, here I am using master brance


Maven-Test Config
Screen Capture Resul
mohanraz81/webtest
Maven + Cobertura
Mojo – MojoHaus M
mvn cobertura:cober
192.168.1.12:8080/job/Maven-Test/configure
Jenkins
Maven-Test
General
Source Code Management
Build Triggers
Build Environment
Pre Steps
Build
Post Steps
Build Settings
Post-build Actions
Source Code Management
None
Git
Repositories
Repository URL
https://github.com/mohanraz81/webtest.git
Credentials
mohanraz81/******
Add
Advanced...
Add Repository
Branches to build
Branch Specifier (blank for 'any')
*/master
Add Branch
Save
Apply
(Auto)
apache-maven-....tar.gz
4.6/8.1 MB, Paused
Show all
Ask me anything
ENG
12:06
10-10-2016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mohanraz81/webtest
192.168.1.12:8080/job/test/configure
Jenkins
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General
Source Code Management
Build Triggers
Build Environment
Pre Steps
Build
Post Steps
Build Settings
Post-build Actions
Source Code Management
None
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Repositories
Repository URL
https://github.com/mohanraz81/webtest.git
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Advanced...
Add Repository
Branches to build
Branch Specifier (blank for 'any')
*/master
Add Branch
Save
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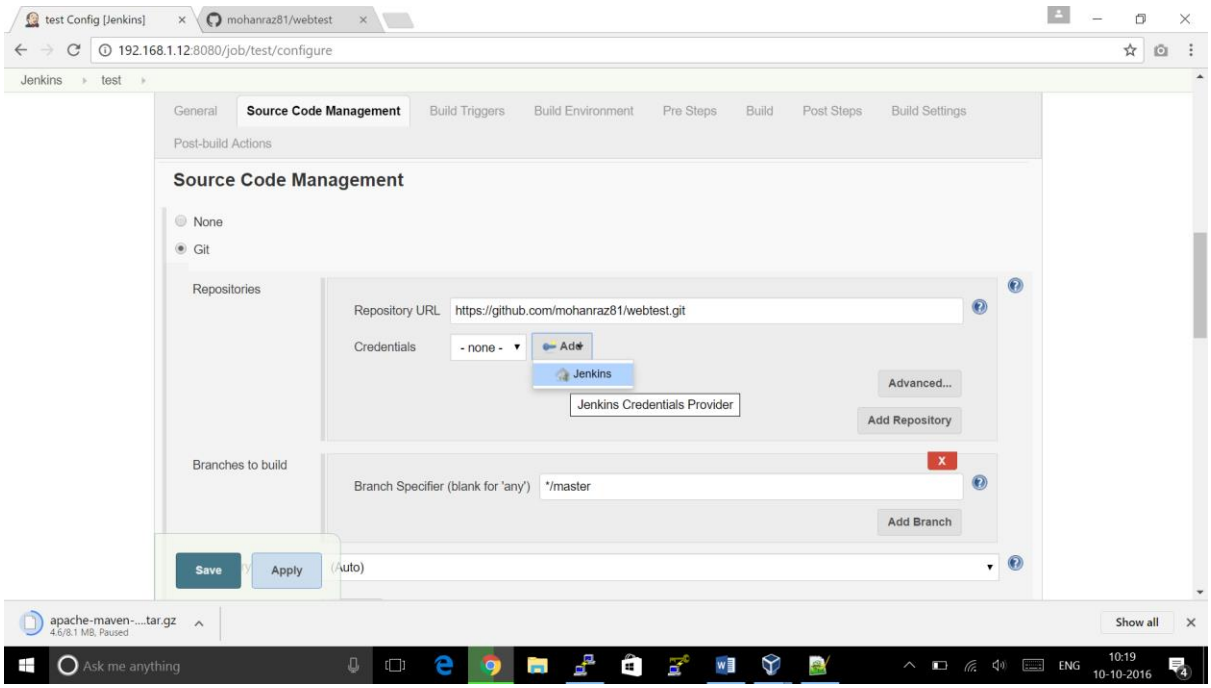
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Build Triggers
Build Environment
Pre Steps
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Post Steps
Build Settings
Post-build Actions
Source Code Management
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Repository URL
https://github.com/mohanraz81/webtest.git
Credentials
- none -
Add
Jenkins
Jenkins Credentials Provider
Advanced...
Add Repository
Branches to build
Branch Specifier (blank for 'any')
*/master
Add Branch
Save
Apply
(Auto)
apache-maven-....tar.gz
4.6/8.1 MB, Paused
Show all
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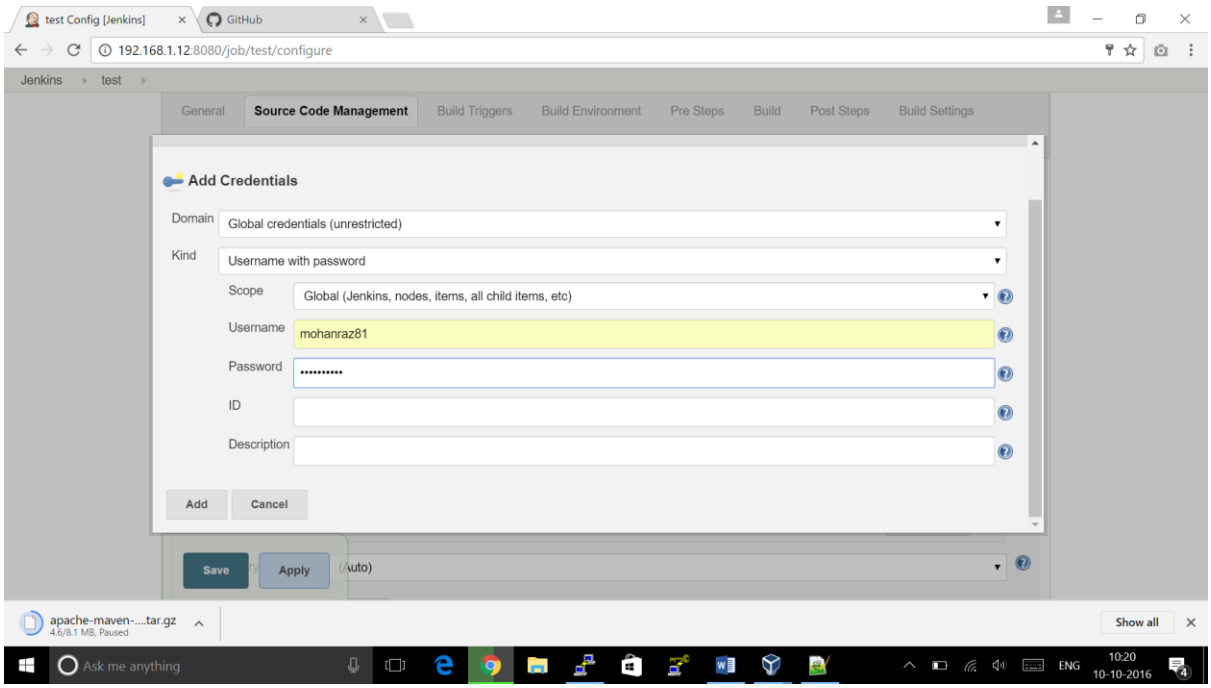
10-10-2016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Jenkins
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General
Source Code Management
Build Triggers
Build Environment
Pre Steps
Build
Post Steps
Build Settings
Add Credentials
Domain
Global credentials (unrestricted)
Kind
Username with password
Scope
Global (Jenkins, nodes, items, all child items, etc)
Username
mohanraz81
Password
ID
Description
Add
Cancel
Save
Apply
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apache-maven-....tar.gz
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Show all
Ask me anything
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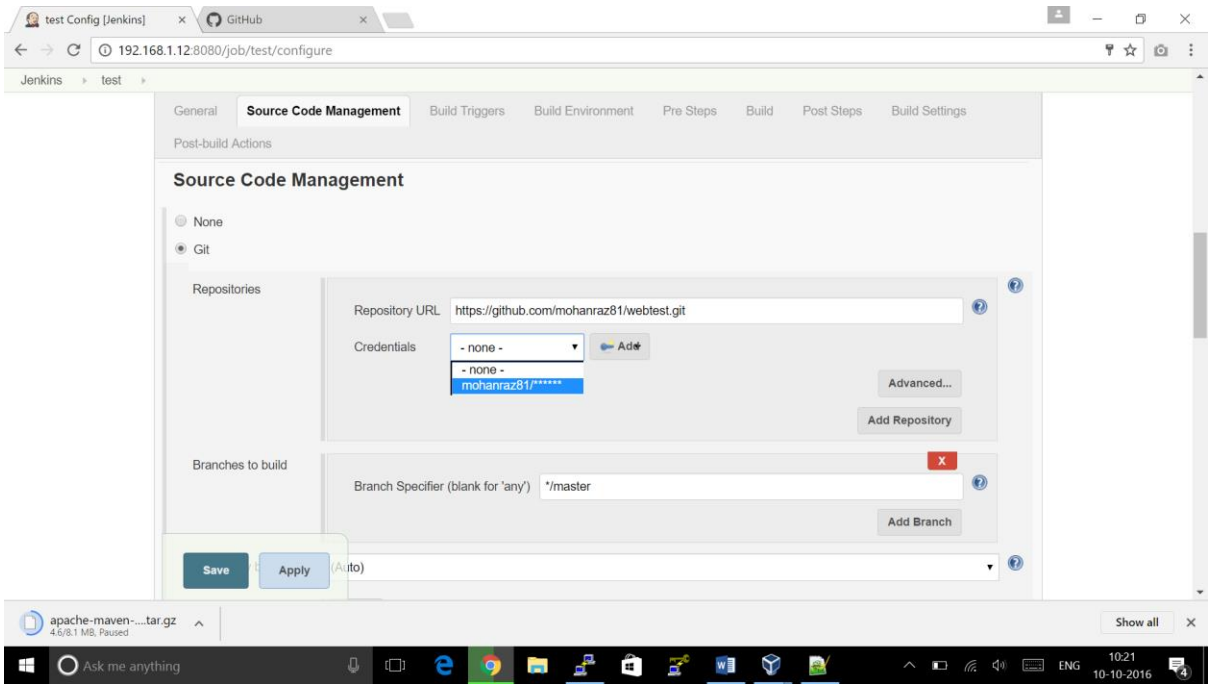
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Git
Repositories
Repository URL
https://github.com/mohanraz81/webtest.git
Credentials
- none -
- none -
mohanraz81/******
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Advanced...
Add Repository
Branches to build
Branch Specifier (blank for 'any')
*/master
Add Branch
Save
Apply
apache-maven-....tar.gz
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Ask me anything
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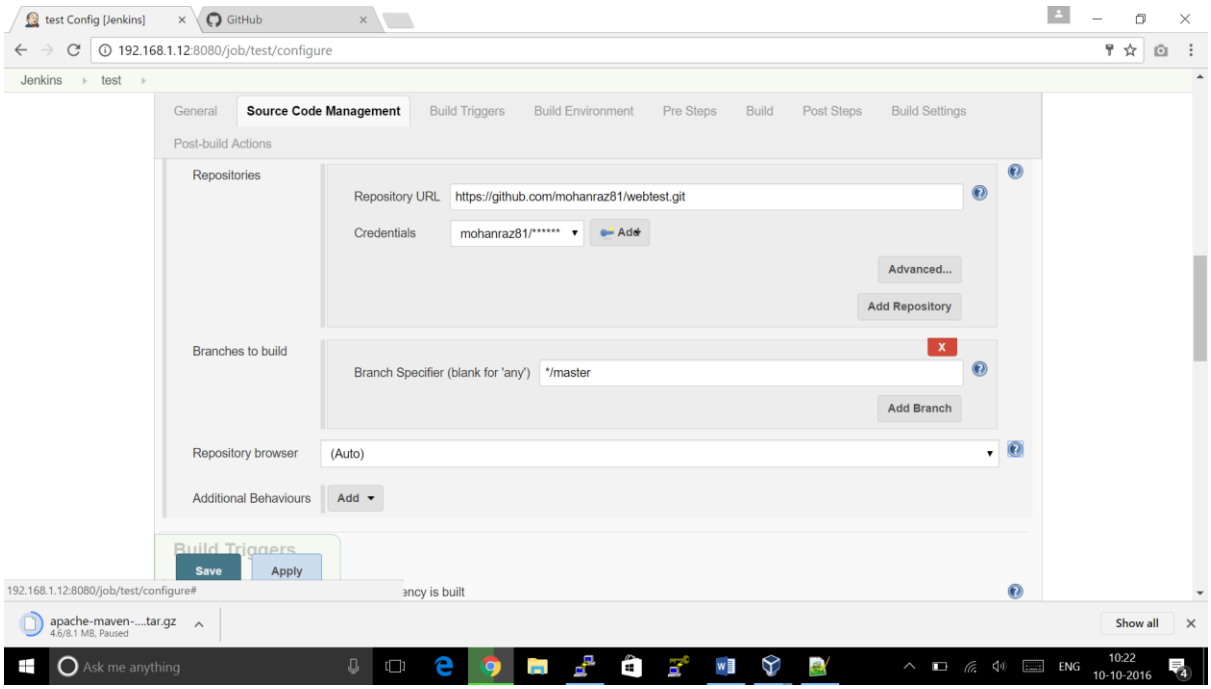
10-10-2016


test Config [Jenkins]
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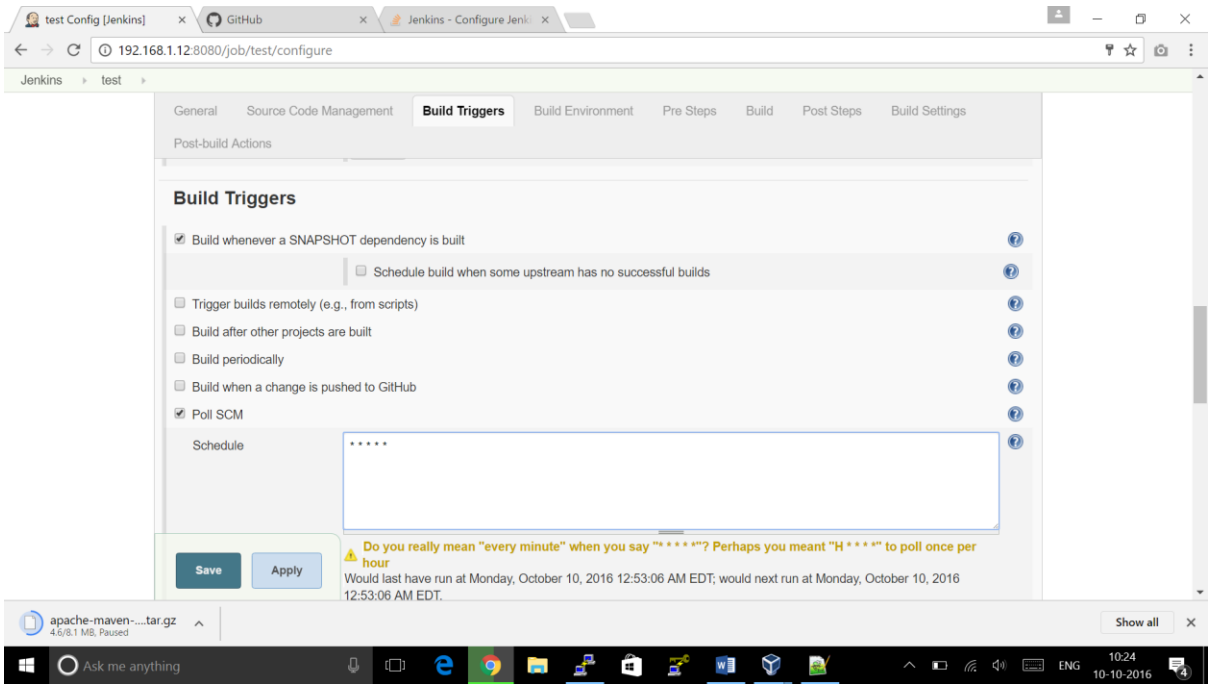
192.168.1.12:8080/job/test/configure
Jenkins
test
General
Source Code Management
Build Triggers
Build Environment
Pre Steps
Build
Post Steps
Build Settings
Post-build Actions
Repositories
Repository URL
https://github.com/mohanraz81/webtest.git
Credentials
mohanraz81/******
Add
Advanced...
Add Repository
Branches to build
Branch Specifier (blank for 'any')
*/master
Add Branch
Repository browser
(Auto)
Additional Behaviours
Add
Save
Apply
192.168.1.12:8080/job/test/configure#
apache-maven-....tar.gz
4.6/8.1 MB, Paused
Show all
Ask me anything
ENG
10:22
10-10-2016

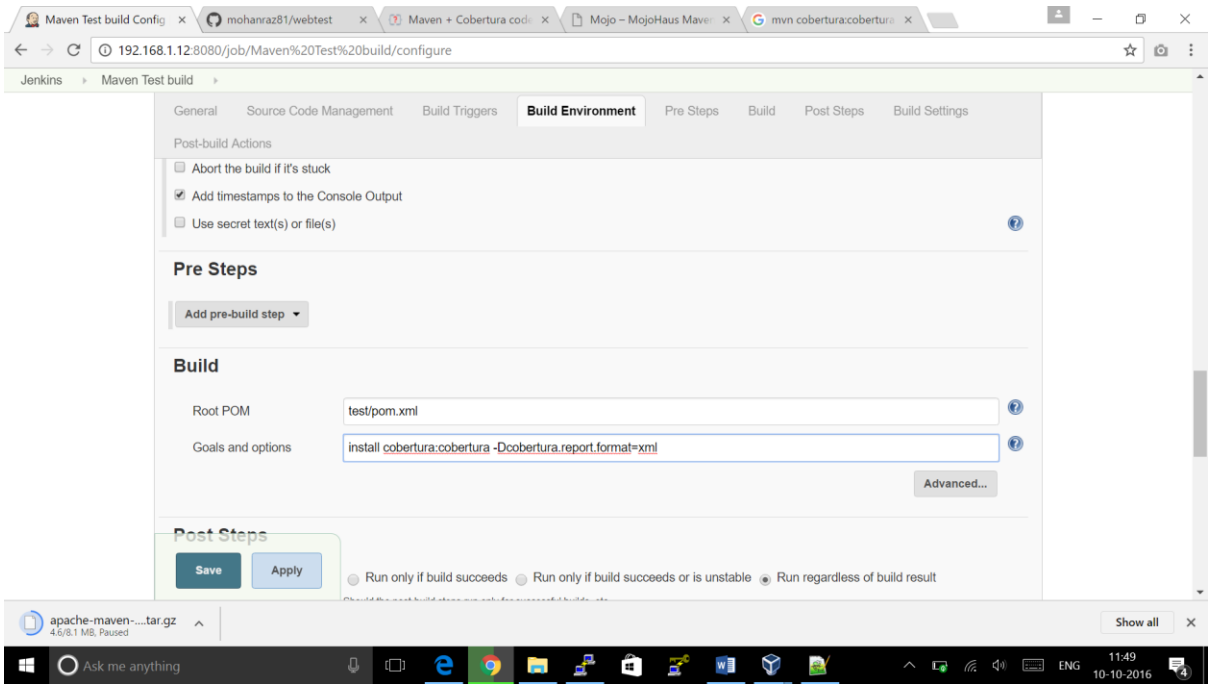
Poll SCM In this case we are following polling per minute to validate quickly
In Production it should be your build interval

There are 5 places like crontab

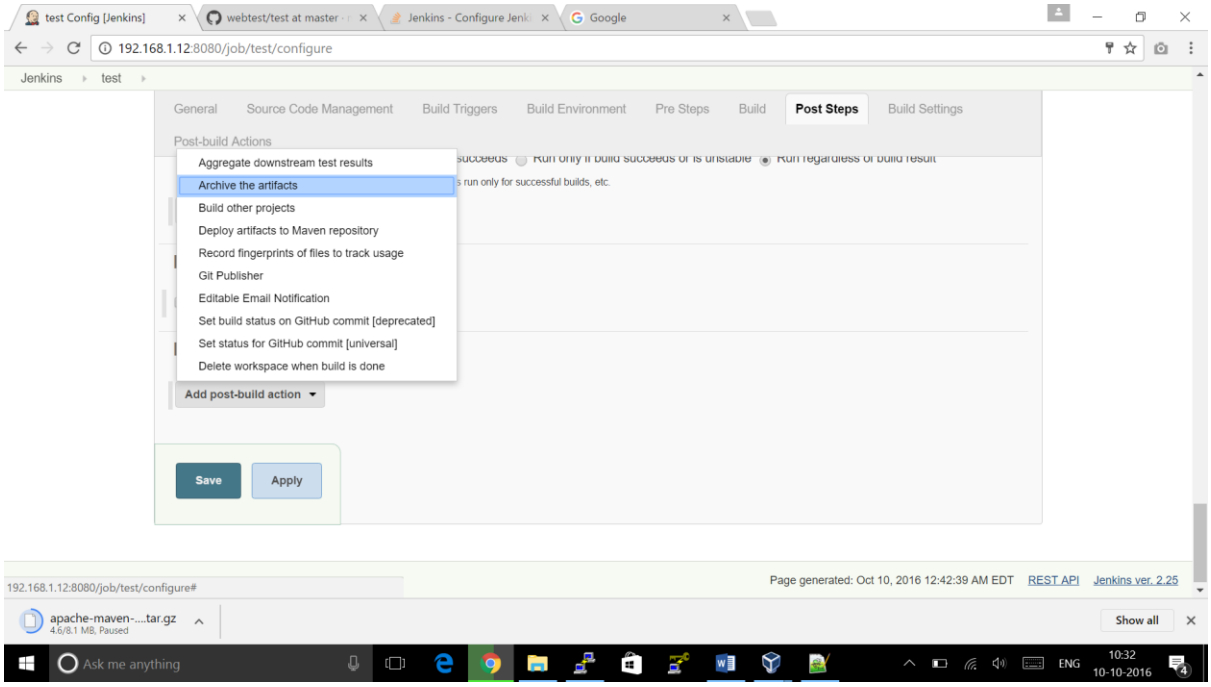
Field	Range of values
minute	0-59
hour	0-23
day	1-31
month	1-12
day-of-week	0-7 (where both 0 and 7 mean Sun, 1 = Mon, 2 = Tue, etc)

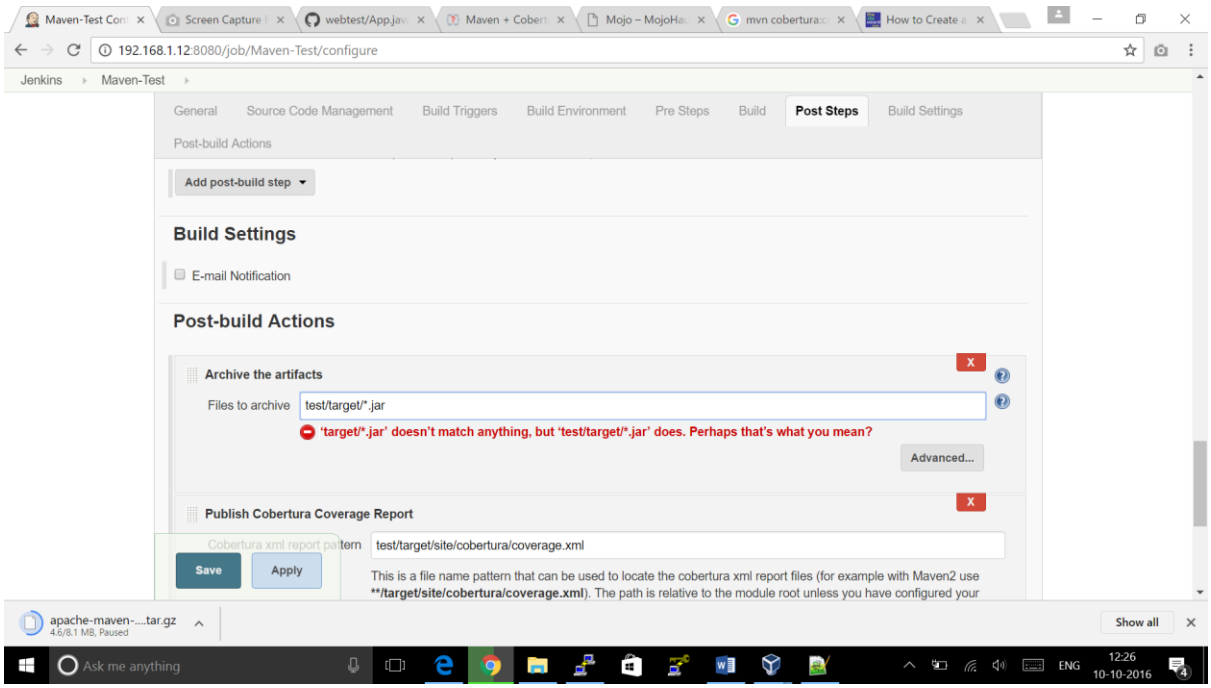


Build Steps:
Give where is pom.xml In the example : it is test/pom.xml
Give Maven Goals: install cobertura:cobertura -D cobertura.reports.format=xml

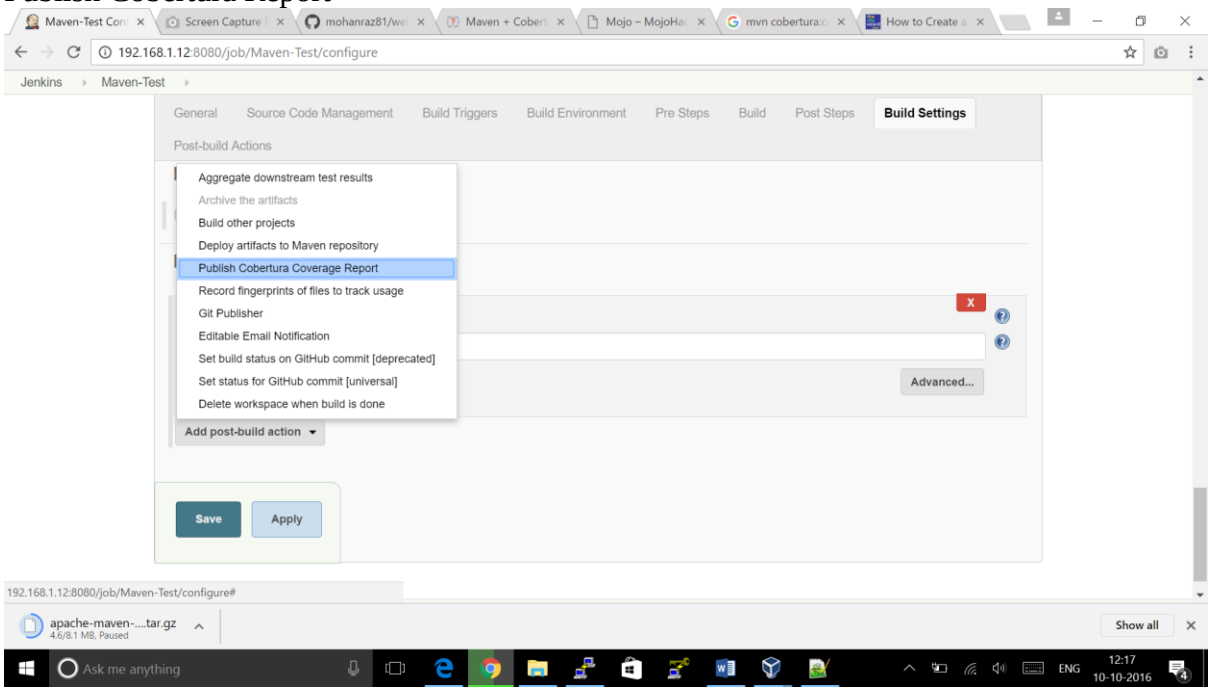


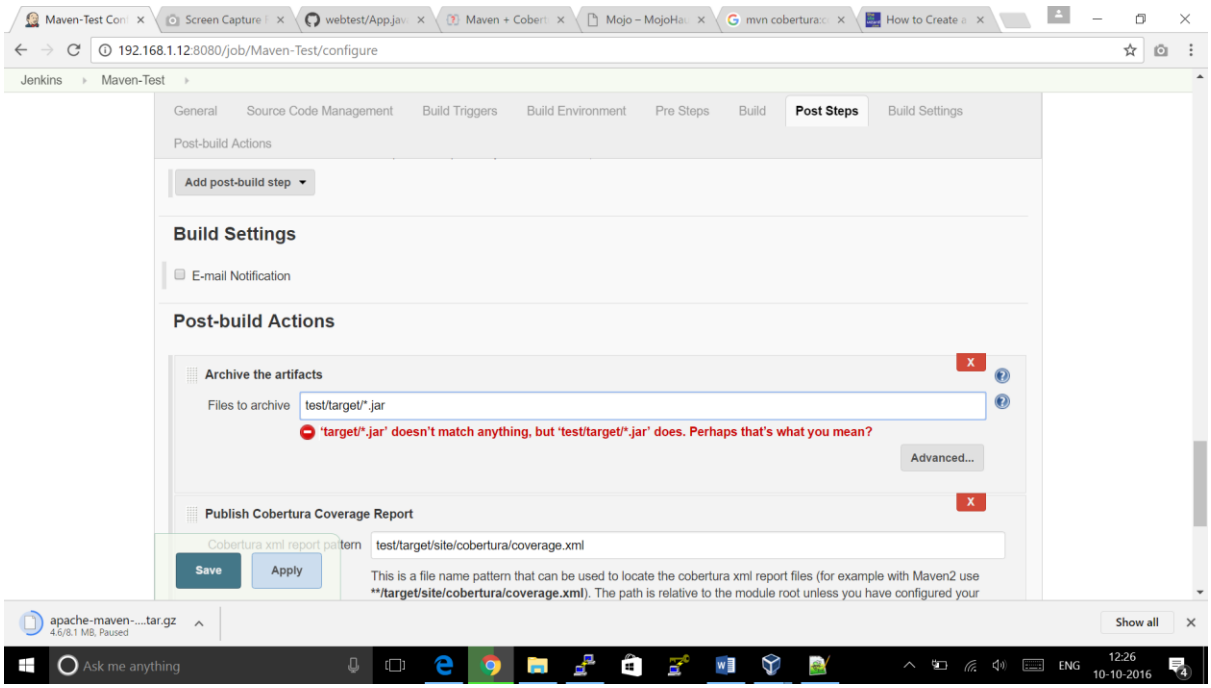
Post Build:
Archieve Artifact to download



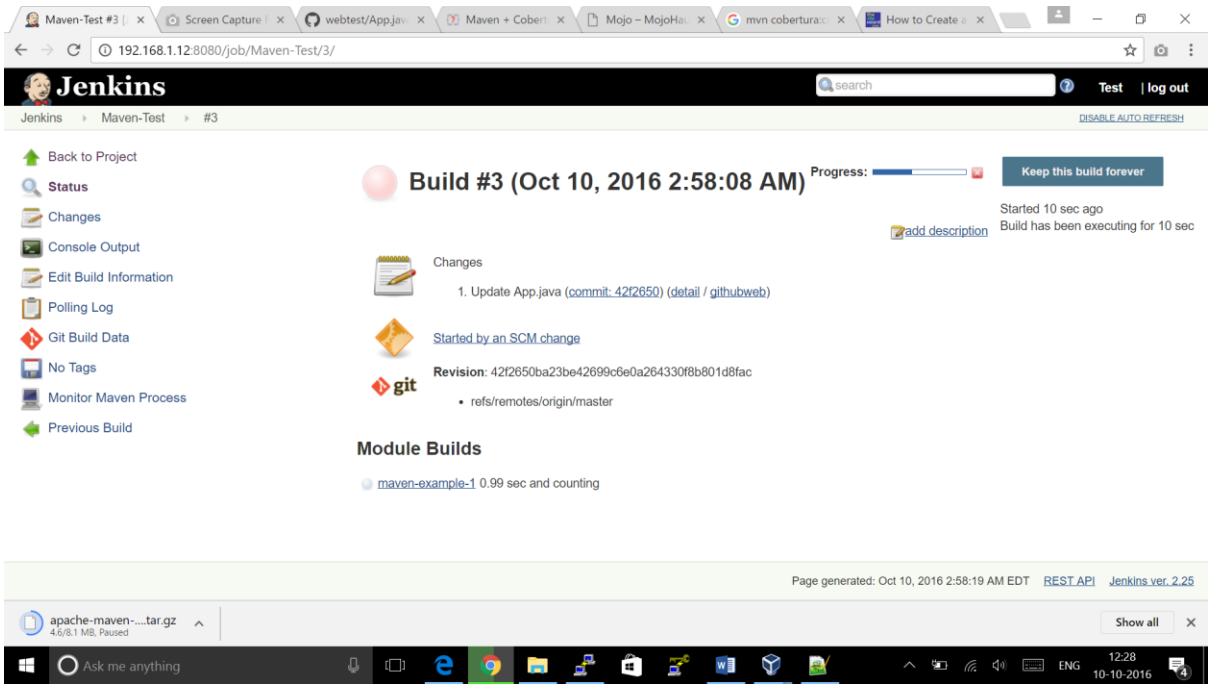


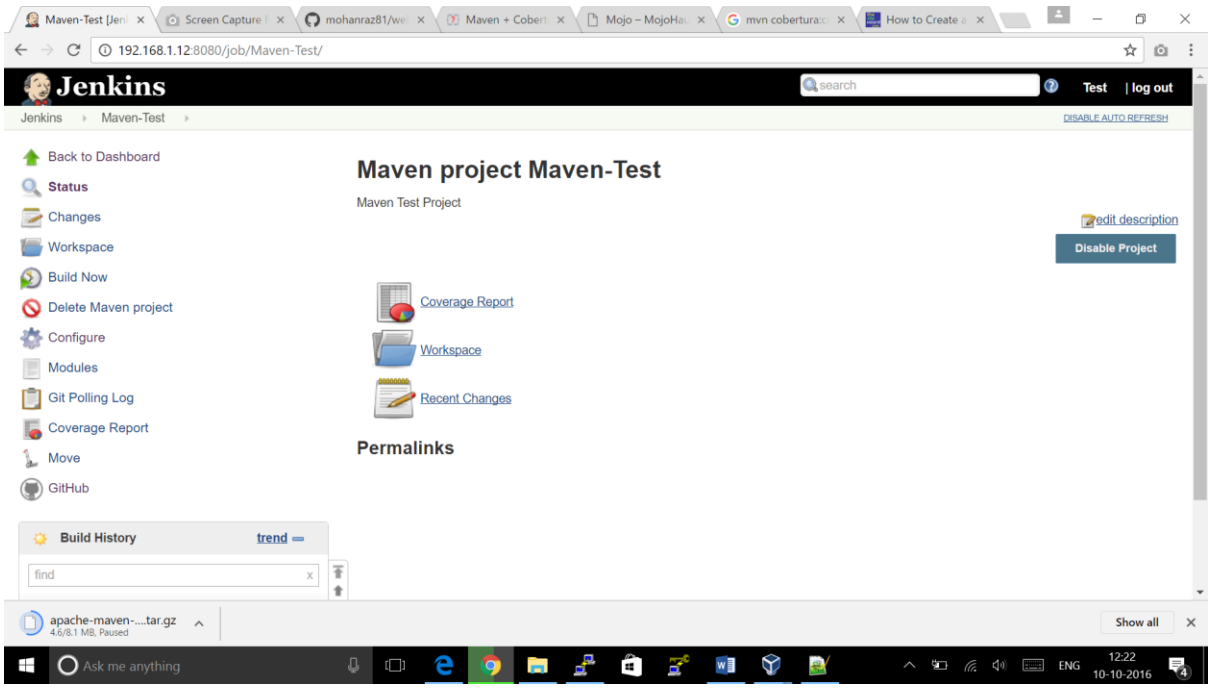
Publish Cobertura Report





Go to Git make some changes and commit to kick off build





Step 3: You can now create a job with the ‘Maven project’ option. In the Jenkins dashboard, click the New Item option.

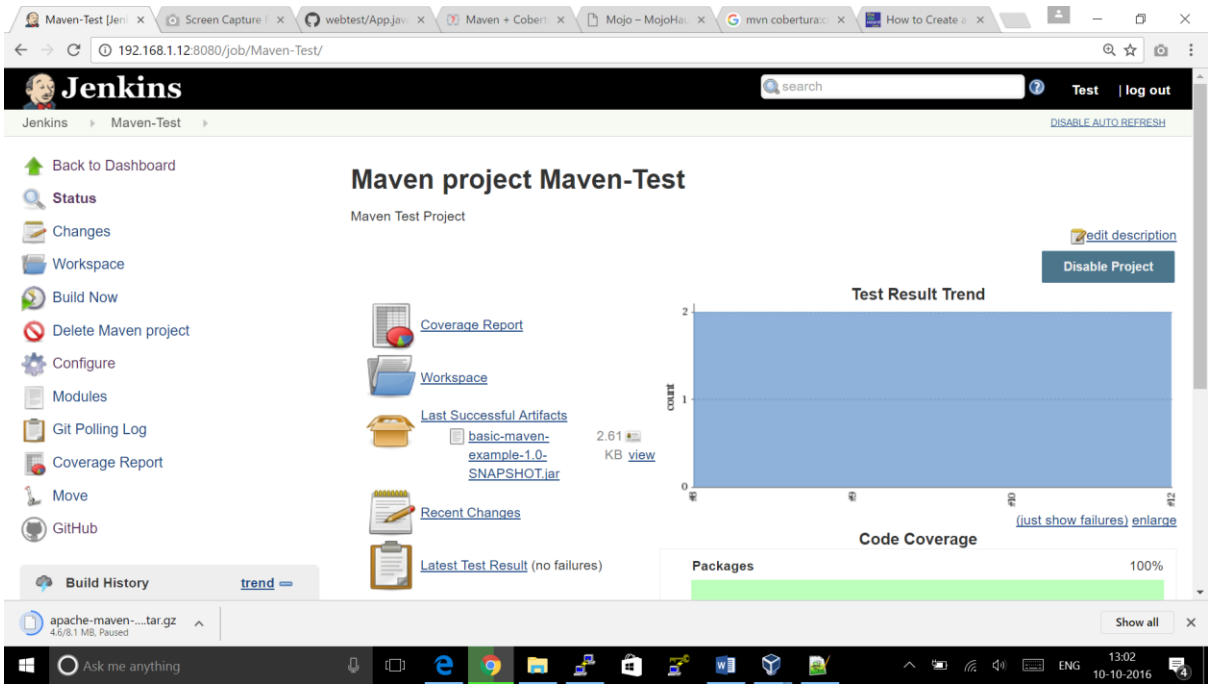
Click SCM Poll for polling GIT every minute “* * * * *”

Choose Maven Top level build and add maven command to execute and POM File directory in GIT , save and Apply

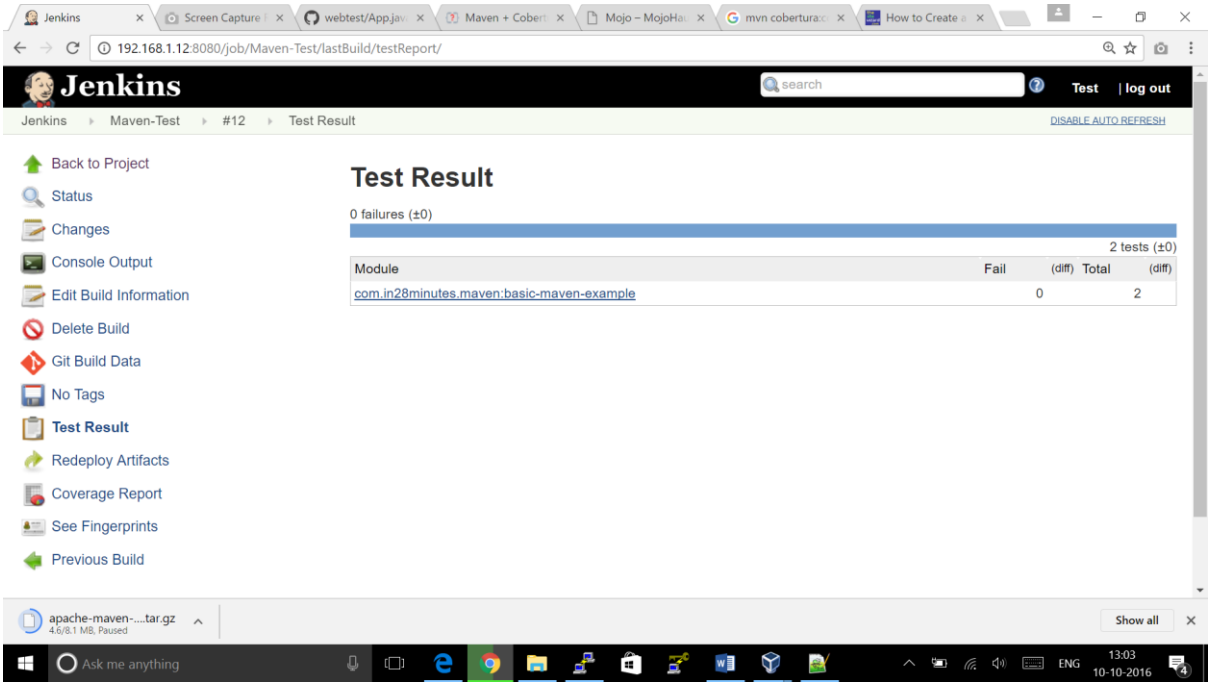
Checkin the code to GIT repository and Monitor the build to trigger.

Once build is successful

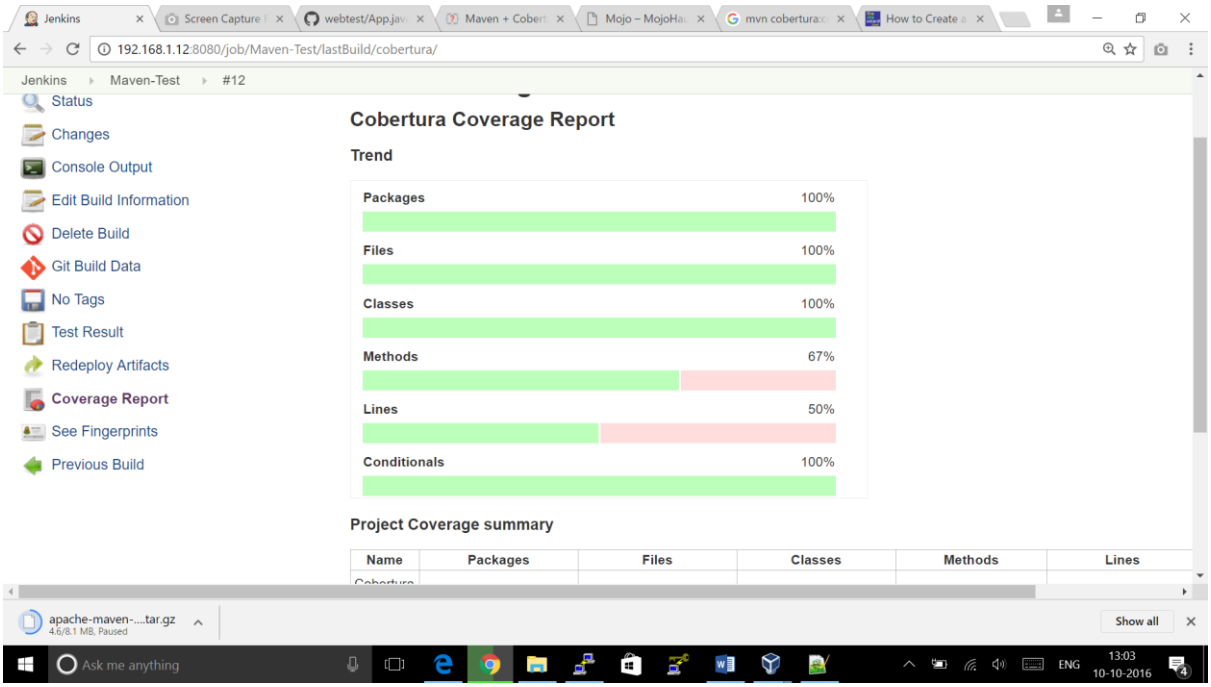
You will link to download Jar File

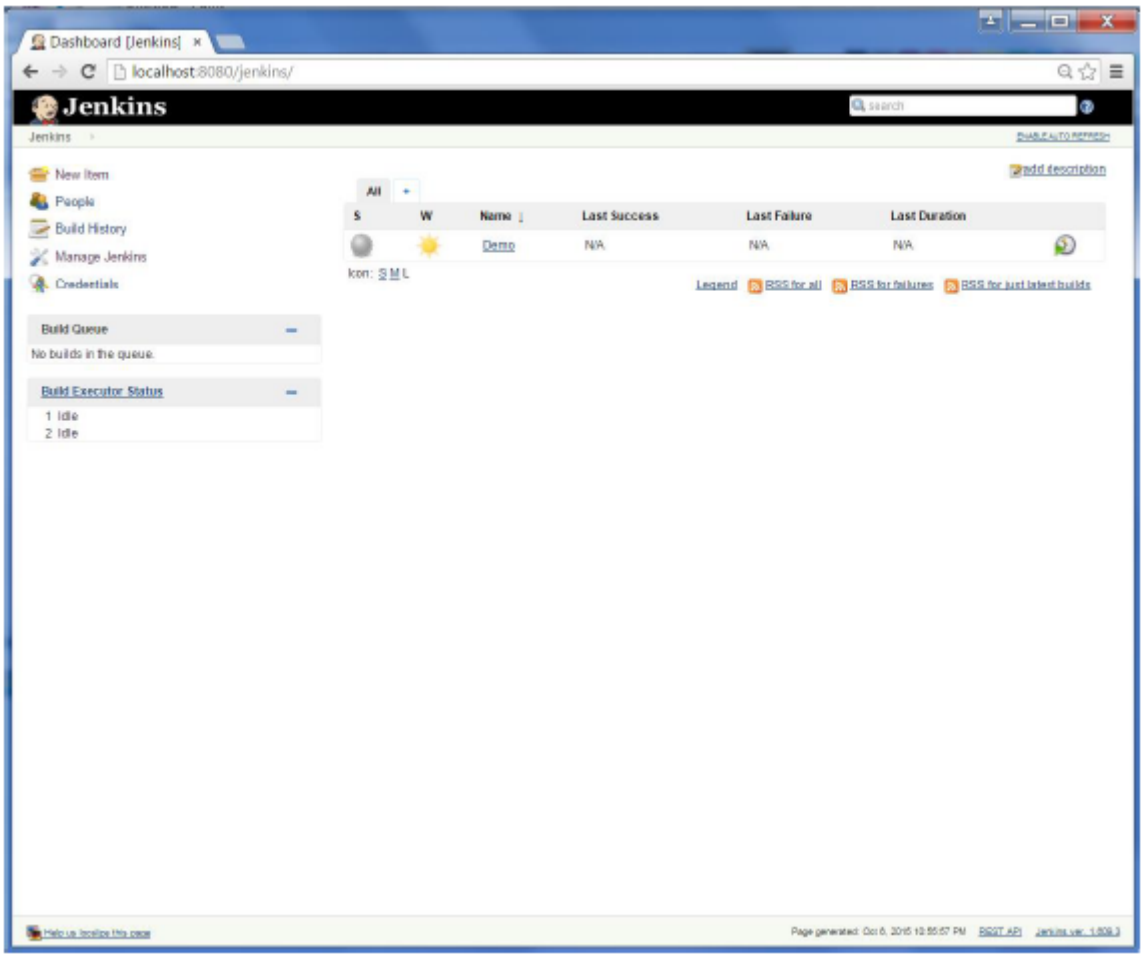


Junit test result will find in Latest Test Result



Code Coverage report is available at “Codecoverage Report”




Dashboard [Jenkins]
localhost:8080/jenkins/
Jenkins
search
Jenkins
New Item
People
Build History
Manage Jenkins
Credentials
add description
All
S
W
Name
Last Success
Last Failure
Last Duration
Demo
N/A
N/A
N/A
Icon: S M L
Legend
RSS for all
RSS for failures
RSS for just latest builds
Build Queue
No builds in the queue.
Build Executor Status
1 Idle
2 Idle
Help us localize this page
Page generated: Oct 6, 2015 12:55:57 PM
REST API
Jenkins ver. 1.609.3