What is Jenkins?

* Jenkins is an open source continuous integration server, which is written in Java, It provides Continuous Integration services for software development and Jenkins provides add the multiple plug-in and Jenkins help us to integrate the code from multiple repository and create the build at any time.

What are the advantages of Jenkins?

* When your test cases are ready, and you want to handover to the client or manual testing team so that they can trigger these test cases using single click then Jenkins is the best choice.
* Using Jenkins, we can create a build (Build – set of Test case combined) and we can run easily using a batch file or Git or build.xml or SVN etc.
* In Jenkins, we can schedule the build periodically

Example- You want to run 100 Test cases daily at 10 pm then Jenkins will take care of this based on our pattern it will trigger your build

* Email-Notification- Jenkins provide email notification to once build passed or failed, result will be send to respective recipients (Depends on the configuration)

Before starting if you have been having Eclipse, TestNG and if you are using Excel sheets or CSV then these jars should be ready.

* It has more than 1000 plug-in to make the work easier.
* **Jenkins** is an open source tool that is a reason free of cost.
* Plugins
* Maven
* Selenium
* TestNg Result
* Email Extension
* Git
* Ant
* Gradle
* Docker
* Jira
* Pipeline
* Artifactory

Just download jenkins.war file,once downloded then goto cmd propmt and goto that location where your jenkins.war file is located then write one cmd java -jar jenkins.war

just type localhost:8080 in browser you will get Jenkins web app just download plugin and after that login with your credentials.

Click on Manage Jenkins.

Manage plugin:

\*Just download all related plugins.

Global Tool config:

\*Set JDK path

\*Set Maven path

Configure System:

\*Set Email notification configuration.

Just go to dashboard:

Select Maven project from clicking on 'New Items'

\*Go to build screen

\*Put pom.xml path in the Root POM field

\*Put maven cmd 'clean'and 'install' in the Goals and options field

\*Go to build setting

\*Click on Email notification checkbox

\*Put email id where you want to receive the build result.

NOTE: In maven project, you have to create testng.xml and declare those class names within classes tag which are required and you have to declare sure fire plugin with testng.xml name in POM.xml after that you can run the build or test cases through Jenkins else you will get error message.

* \*M \*H \*Day of Month \*Month of Year \* Day of Week
* \* \* \* \* \* build will be triggered in every minute
* 2 2 \* \* \* build will be triggered at 2:2AM
* 14 14 \* \* \* build will be triggered at 2:2PM
* 2 \* \* \* \* build will be triggered at Every hour of 2nd Min.
* H/15 \* \* \* \* build will be triggered Every 15 Min.

NOTE:

If any test cases got failed, then result will be shown on console output: Unstable and send to the respective email id.

If any build got failed due to configuration issue, then result will be shown on console output: Failed and send to the respective email id.

If all test cases got passed means your test cases has been passed successfully and then result will be shown on console output: Success and email won’t send to email id.

If earlier, same build got failed and unstable then if you triggered the build again if build got passed then email send to the respective email id with msg "Jenkins build is back to stable"