MAVEN

In Jenkins we use only mvn package which is used to create Artifacts. As a devops engineer we are particular with that particular stage. But in maven we have 7 stages.

Maven is an build tool for java.

Java files are created with an extension of .java, after compiling it converts into .class files. These multiple .class files combine to form an artifact in the form of jar file, war file, ear file.

Maven global server, where all the API’s get stored in a secured manner.

We download the required API’S and store them in maven local server.

If the API gets disturbed then the Maven local server only gets affected but the code in Hub remains safe.

Before we start maven we need java installed in our system. Once java gets installed copy the path where the jdk folder is present.

Go to Edit variable environment. Choose environment variables. In system variables Click on new. Give the variable name (java\_home) and paste the location.

In system variables select path and click on edit. Click on new, paste the path of jdk. In the end give \bin. Now we download maven. Go for bin.zip file unnecessary of version number. now extract the maven zip file.

After extracting copy the location and go to edit environment variables. And in system variables create new variable. M2\_home and paste the location. Go to path and click on edit. And click on new and paste the location.

Now check whether the maven has been configured successfully or not. Go to command prompt and type mvn --version.

In command prompt enter mvn archetype:generate . this will be used to create maven project.

At last you will get an Id. Hit enter. Then it will show some numbers and default it selects a number. hit enter. Now it will ask to enter group Id, enter the group id(alphabets). Now it will ask for Artifact Id, give some name.

After confirming all the details you will get a message as Build success.

Pom stands for project object model which controls entire behavior of maven project.Here the dependencies information and various information of project gets stored.

GAV in which g stands for group id, A stands for Artifact Id, v stands for Version.

Now open the Pom file with notepad so that we can edit the file.

The dependencies we added in the pom file gets compiled and getting downloaded into maven local repository.

There will be a folder with name .m2 which is the maven local repository.

# Life Cycle of Maven

It consists of 7 stages:

1. Prepare-resources – default stage where resource preparation takes place.
2. Validate – mvn validates whether the folders created are correct to the given Id.
3. Compile – converting .java to .class is done in this stage.
4. Test -- done with mvn test
5. Package – here the class files gets condensed and archived into single Artifact.
6. Install – if developers wants to go with the artifact created to run in local repository we go with his command.
7. Deploy – artifacts are deploying into tomcat via Jenkins even maven can do it by using deploy command.