* Jenkins is a free and open source continuous integration server built with java, basically continuous integration is the practice of running your test on a non-developer machine automatically every time someone pushes new code into the source repository, I think Jenkins has the tremendous advantage of always knowing if all tests work and getting fast feedback, the fast feedback is important so you always know right after you broke the build, Jenkins can be used to schedule jobs for regression testing, Jenkins can be also used like a schedule for integration testing and Jenkins also can be used to validate new deployments/environments
* Can be used to associate Jenkins with a version control server, Jenkins can be used of trigger builds by polling, can be execute bash scripts, shell scripts, and maven targets, in Jenkins we able to publish result, and send email notification
* continuous build, continuous deployment, also including testing and it is completely developer using by java only, and it is available as java web application, so it is in package (Jenkins.war), .war mean web archive file, also every web application will able to run by using any web/application server, if we want to run maven application we need to web server/application server, we need to install tomcat server in JENKINS, so actually how it does work, if I say work flow of the web application, first we have to client request and response, client is nothing but web browser it could be chrome, IE, Firefox etc, and we have to install tomcat server in operating system, in tomcat server there is a container, it is call web container, internally tomcat server will use the JRE, JRE also have JVM, java virtual machine, it’s convert to java byte code into java readable machine language, so basically what happen the tomcat server search for web application and it’s received request from client and response will back to client,
* Once JENKINS has setup, we have to create a new job, so job basically is a project name, after that we have to provide some information like what will be directory we can use as it custom directory, what will be source code management, what will be build, in build we can declare our test xml file name , so that this test xml file is nothing but TestNG suite file, which suite file we want to trigger and we also define POM xml file, which mean we are saying that from POM xml will trigger that suite file, what will be post action build, in post build action we can define what will be the report format it could be HTML or TestNg report
* once basic information has setup, also we have to setup environment for run a project through in JENKINS, also we know that JENKINS will provide us environment, so we have to provide only information, like java path location , maven path location, also GIT repository URL locations, one important things we can run a project from our local machine also we can run from GIT repository, we can run a test based on trigger
* so that’s how Jenkins will work