

Jenkins

Jenkins is an open source project that runs on windows, MacOS and other Unix like operating system. It is free and community supported. To use Jenkins, we have to know the concept of CI/CD pipeline.

CI/CD pipeline :-

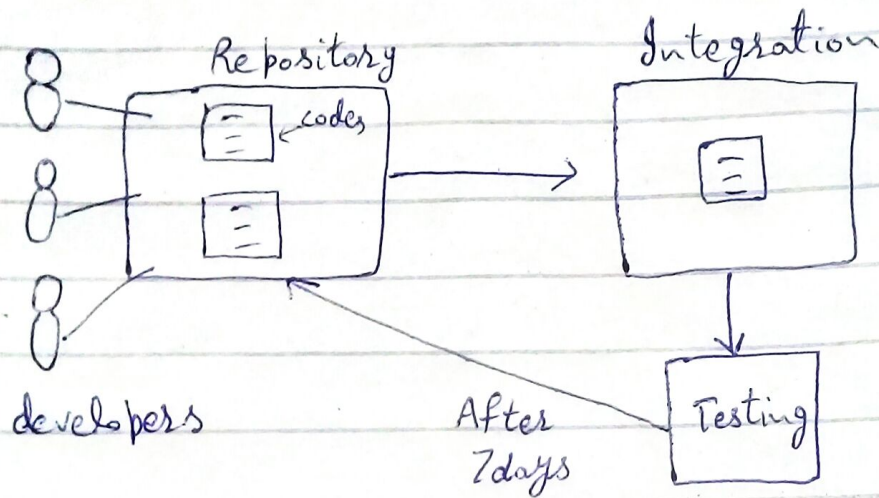
CI

CI short for continuous Integration, is a software development practice in which all developer merge code changes in a central repository multiple times.

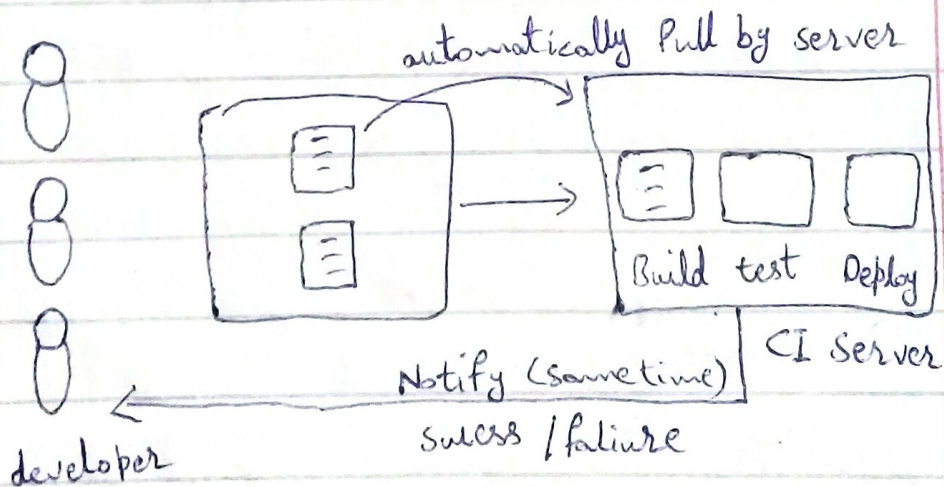
With CI, each changes in code triggered an

automated build - and - test
sequence for the given
project.

Before CI

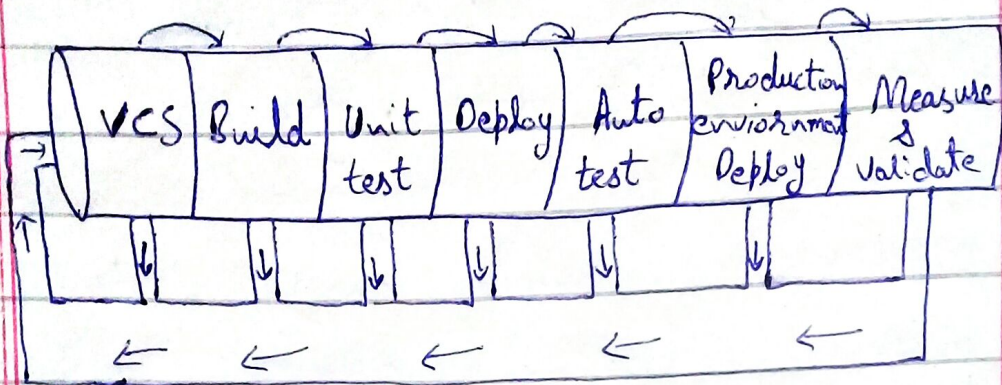


After CI

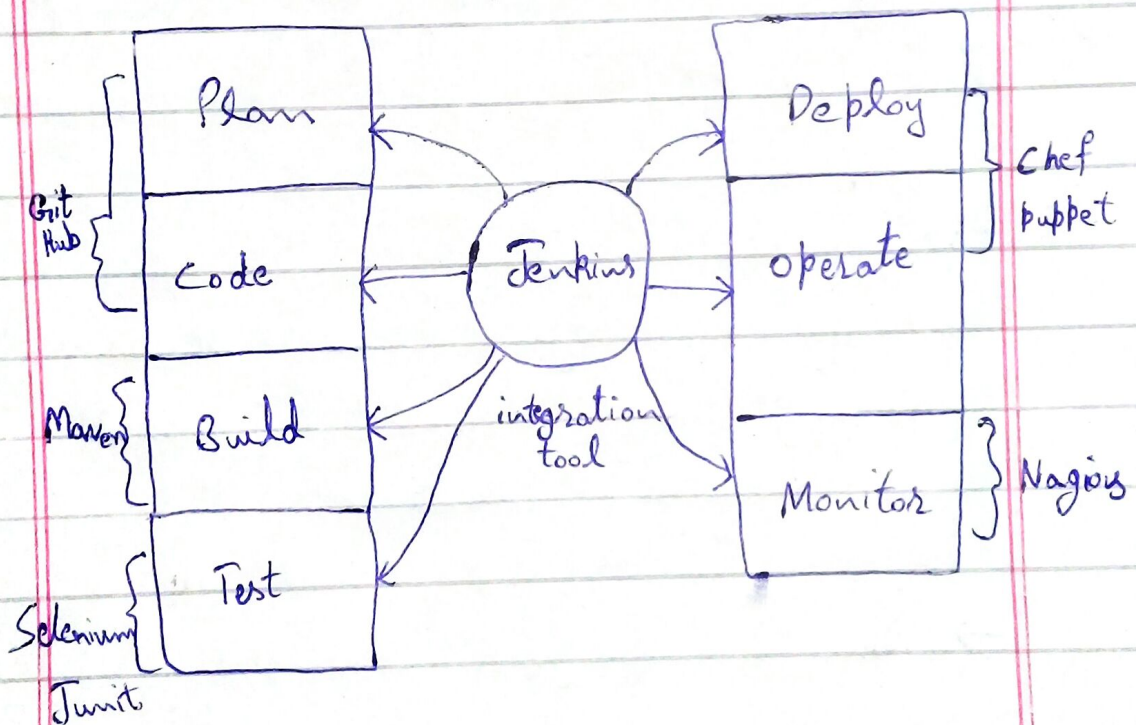


Continuous Integration
= Continuous build + continuous
test

CI/CD pipeline



Jenkins



→ Jenkins is an open source project written in java that runs on windows operating system. It is free community supported and might be your first choice tool for CI.

→ Jenkins automate the entire software development life cycle.

→ Jenkins was originally developed by Sun Microsystems in 2004 under the name hudson.

→ The project was later bought named Jenkins when oracle bought Microsystem.

→ It can run on any major platform without any compatibility issues

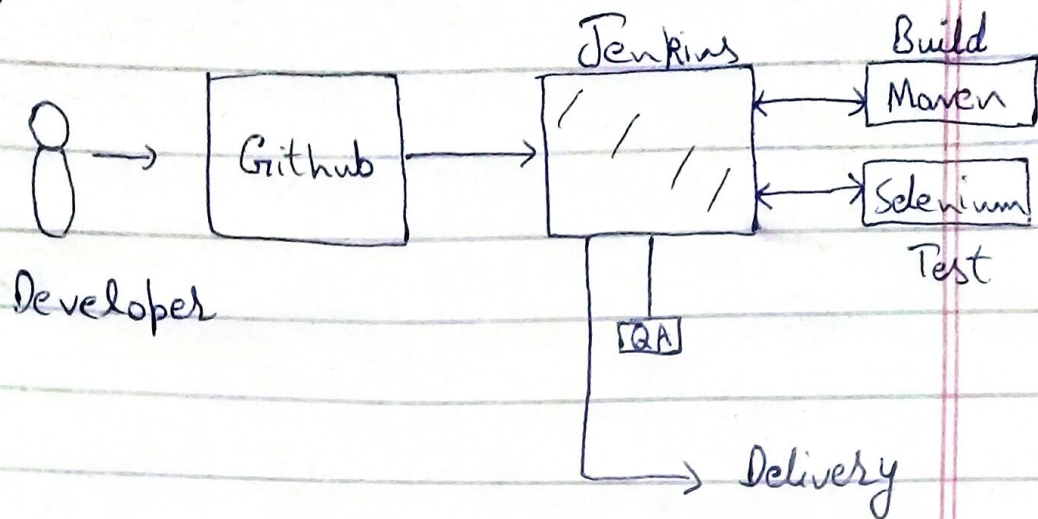
→ Whenever developer write code, we integrate all that code of all developers at that point of time we build, test and deliver/deploy to the client. This process called CI/CD.

→ Because, of CI, Now bugs will be reported fast. So, the entire Software development happens fast.

Workflow of Jenkins

- We can attach git, Maven, Selenium and Artifactory plugin to Jenkins.
- Once developer puts code in github, Jenkins pull that code & send to Maven for build.
- Once build is done, Jenkins pull that code and send to Selenium for testing.
- Once testing is done, then Jenkins will pull that code and send to artifactory as per requirement and so on.
- We can also deploy with

jenkins.



Advantages of Jenkins:-

- It has a lot of plugin available.
 - You can write your own plugins
 - Jenkins is not a tool. It is a framework i.e. you can do whatever you want.
 - It can create label.
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