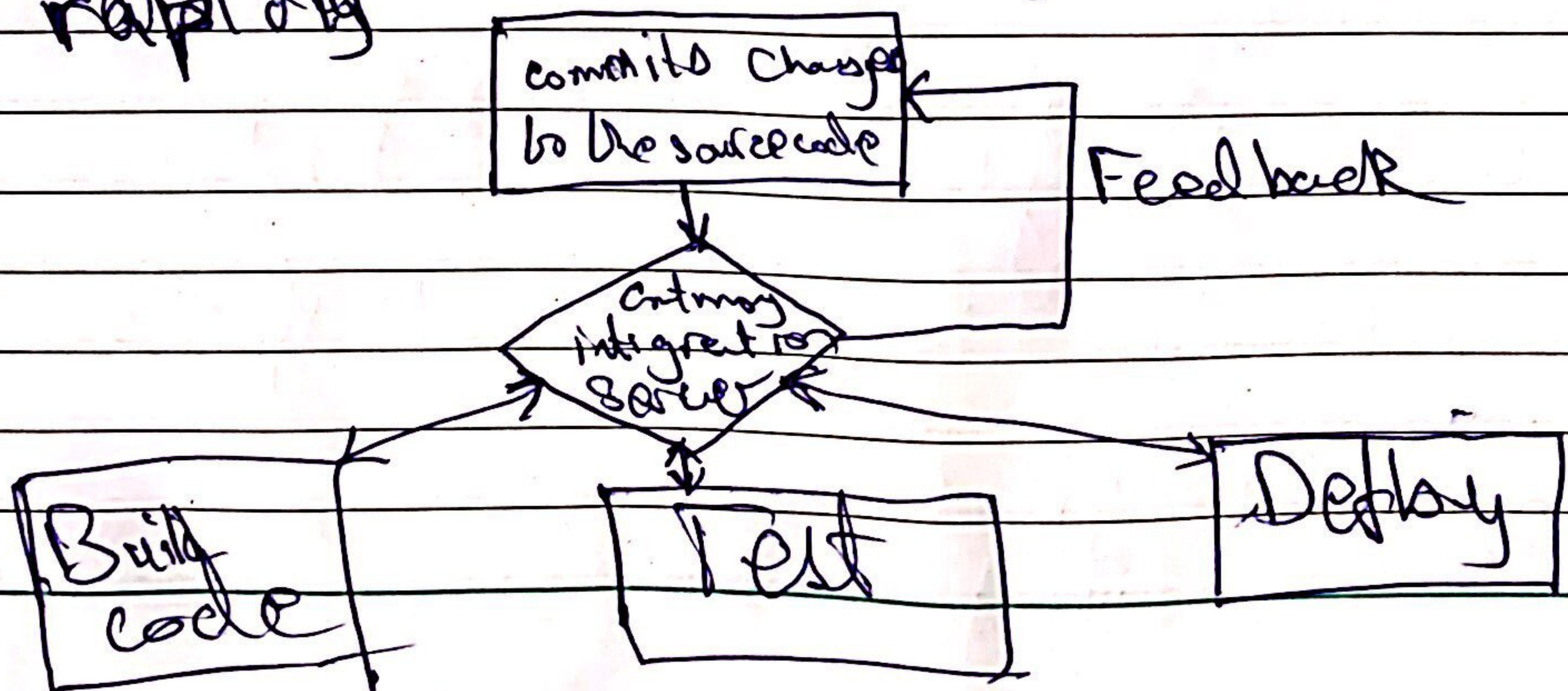# What is jenkins?

Jenkin is the leading open source continrous intigration tool that runs on windows, Mac oS other operating system

what is CI:

CI is short for continrous Intigration. It is a developmet practice in which developpers are required to commit chayes to source code in a shared repository several times a day every commit is then built and this allows the team to detcet problem early

→ Catch issues fast and nip them in the bud
→ every one can see wheats happening
↗ Automate the build
↗ Continrous intigration leads to continous deployment which allow us to deliver software more rapidly

commits Changes to the sourcecode

Feedback

Continrous intigration server

Build code

Test

Deploy

ALBA

Jenkin is just a framework, it achines continous intigration by the help of plugins. It supports over ~~1000~~ 1000 plugins.

" Continous intigration does't get rid of the bugs, but it dose make them drametically easiver to find and remove" ~ Martin Fowler

Jenkins supports plugins, which allows Jenkins to be ~~extended~~ extended to meet specific needs of individual projects.

Jenking plugins
① Ant   ② Junit
③ Maven   ④ numit
⑤ MS Build   ⑥ mstest

Use Cases:

→ The infrastructure provided by jenkins allows us to automate our build process
→ The ability to work with numerous ~~new~~ plugins makes it super easy to change various parts of manual process to fully ~~get~~ automated

→ - we use jenkins to automate many parts of out software devlpmnt lifecycle. And
- Build artifacts aftercommits
- Run intigration test
- Deploy artifacts.

Jenkins workflow:
→ we can attach git, maven, selenium and Artifactory plugins
→ Jenkins pull code from repository eg git-hub and send to maven for build
→ After build code is sent to selenium for testing
→ After testing jenkins pull code and send it to artifactory as per requirement to publish, reassemble promote and realese browse able bild artifacts.