

Git & Github

→ git is a version control tool.

→ what is version control: keeps track of what was changed, edited, modified created and deleted.

→ git is a tool that manages code history, versioning & collaboration, CLI

→ git-hub provides a platform where repo can be hosted, collaborate & integrate CI/CD

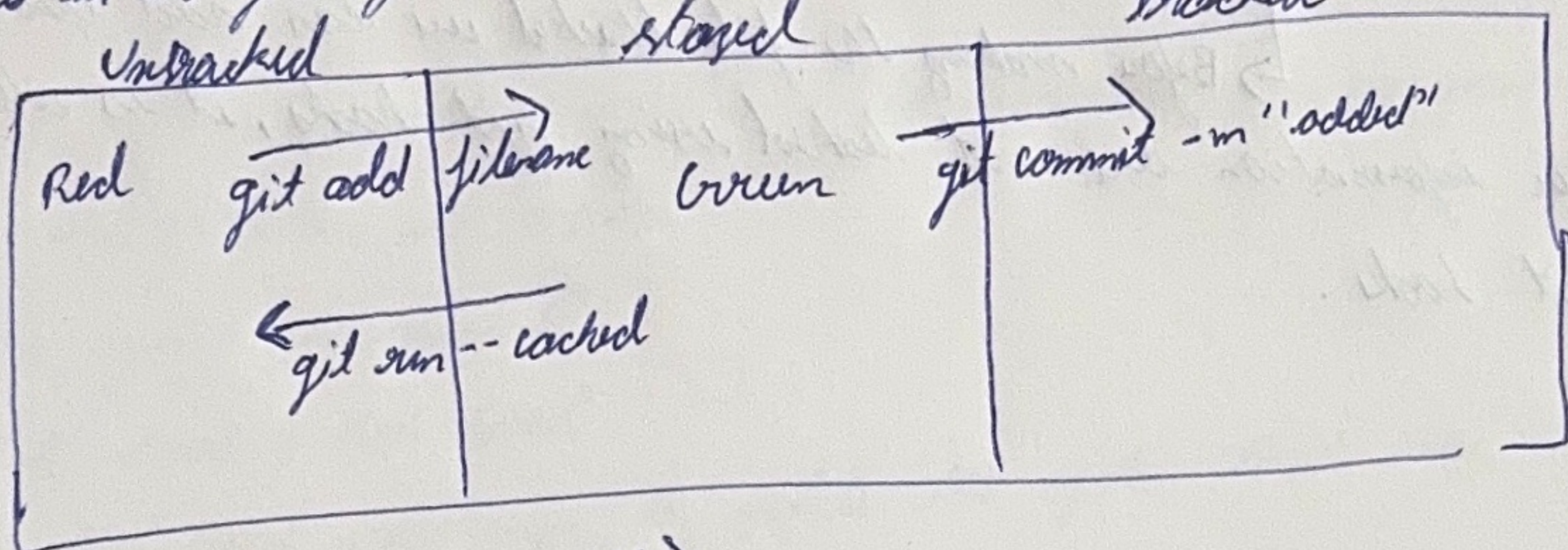
→ file-system vs git: In file system we cannot recover a deleted file but in version control like git we can do it using rollback to a version

→ git init → Initializing an empty git vcs repo

→ git status → It tells us whether a file is being untracked, staged or tracked

untracked means it is not being tracked by git but is on our system

→ all the file in the file system is untracked, all the file in vcs is tracked



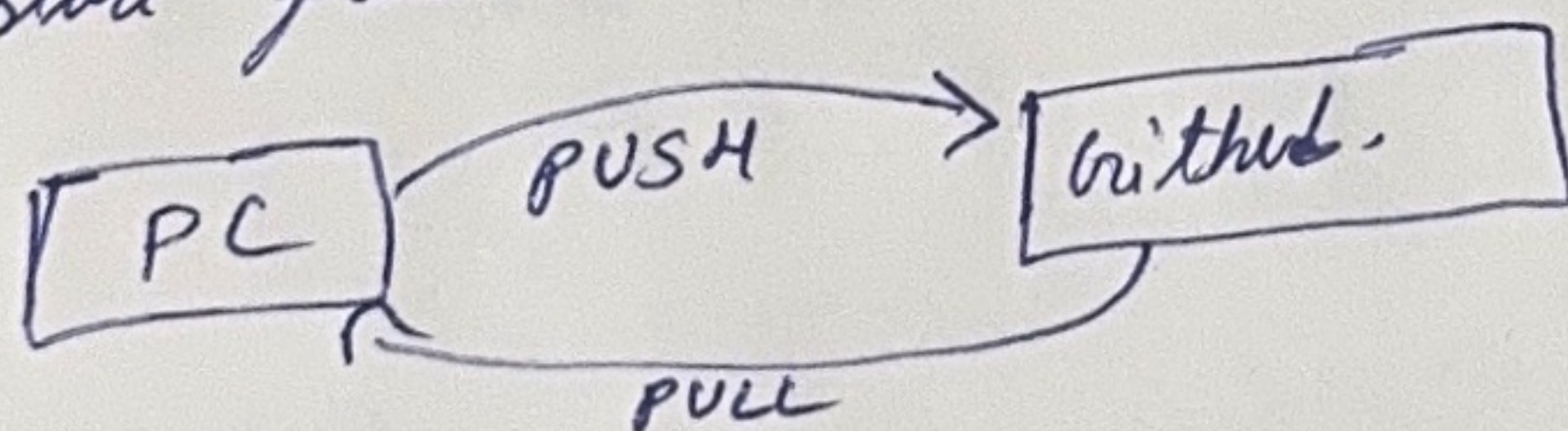
→ git add filename (for one file)

git add . (for all the files in the folder)

git rm --cached (to get it backed to untracked from staged)

git commit -m "message" (From staged to tracked)

git restore filename (to restore a file which is tracked and deleted)



git push origin master → branch if we create a repo in local then master
if we create a repo in github then main

fork: making a copy of repo in our github (github → github)

clone: making a copy of repo in our local (github → local)

Branch

- ↳ The first branch will be main if it is created in git
- ↳ The first branch will be master if it is create in local

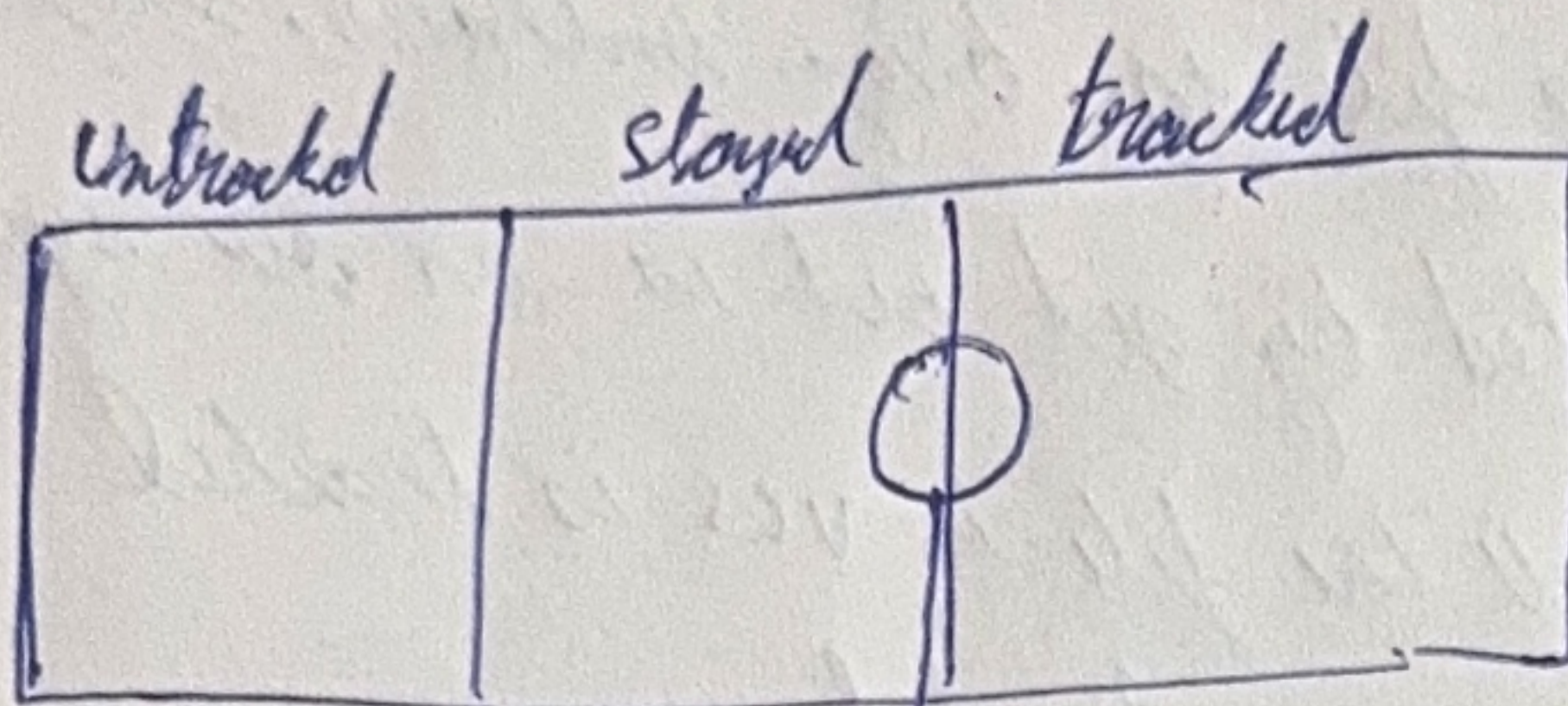
git branch → (to list all the branches)

git branch newbranch → (to create newbranch)

git switch newbranch → (to switch to a different branch)

Every branch in git maintains its own copy independent to each branch head. latest commit in each branch.

HOOKS



↳ Before making the file tracked we can add checks to it so that sensitive information are not leaked using git hooks, it is also called as pre-commit hooks.

↳ cd .git

↳ cd hooks/

↳ vim pre-commit

↳ flake8 can be used to check the quality of code

→ files = \$(git diff --cached --name-only --diff-filter=Acm | grep .py)

flake8 \$files

→ chmod for pre-commit.