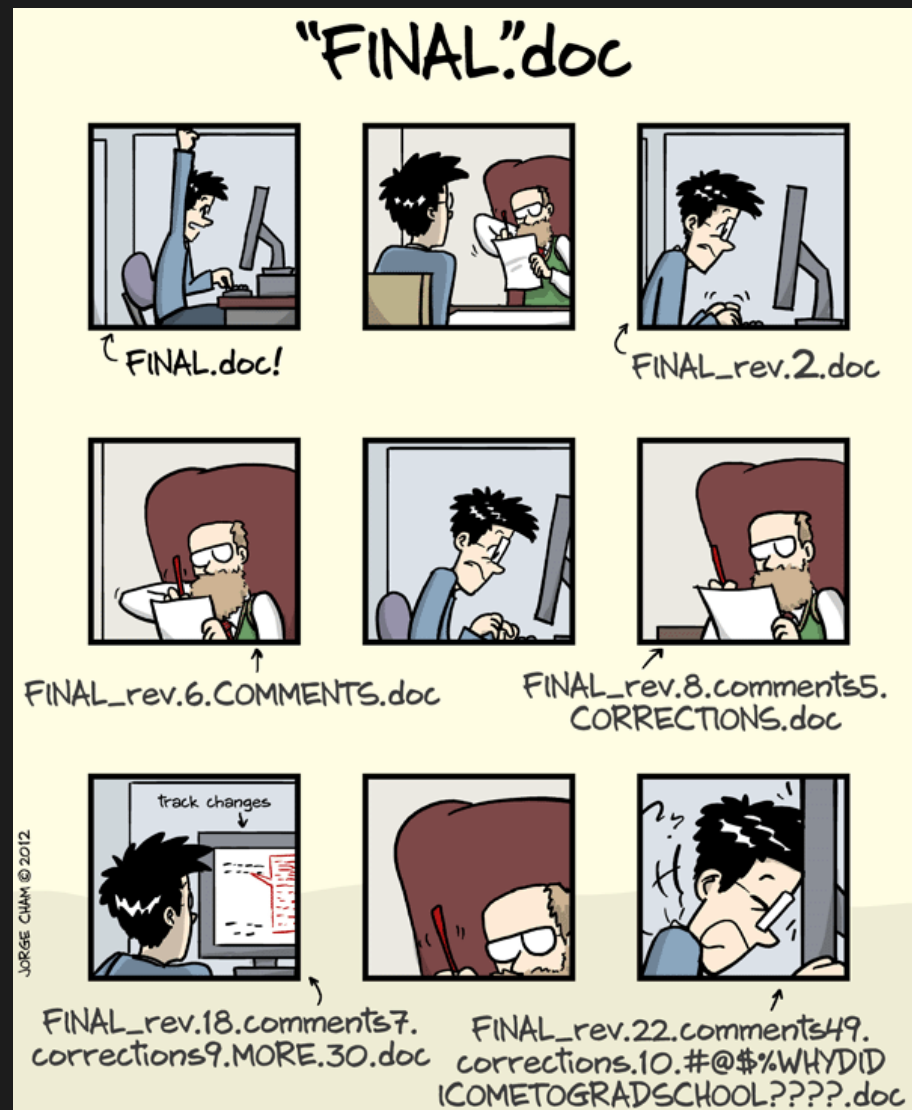# GIT

Distributed Version Control System

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Version Control?

Version control is a system that records changes to a file or set of files over time so that you can recall specific versions later.

Why?

Git allows groups of people to work on the same documents (often code) at the same time, and without stepping on each other's toes

Repository

A directory where Git has been initialized to start version controlling your files.

Git using the CLI

git init

"initialize", or create, a new repository in your current directory

Turning that directory into a git repository

Configure git

git config --global user.name "myname"

git config --global user.email "myname@abc.com"

git status

Check status of all files in the Repository

git add

Move files from 'untracked' to 'staging' area

git reset

Remove file(s) from the staging area to untracked state

git commit

git commit -m 'commit message'

A "commit" is a snapshot of our repository. This way if we ever need to look back at the changes we've made (or if someone else does), we will see a nice timeline of all changes.

git log

A ledger that has entries for all the changes we've committed so far.

Remote Repository

GitHub: https://github.com
GitLab: https://gitlab.com
BitBucket: https://bitbucket.com

Connecting Remote Repo
to the Native one

git remote add origin <url_to_remote_repo>

git push

Saving local changes to remote repo

git push -u origin master

git pull

Pulling changes made by others, from Remote

git pull origin master

What is branching?

Duplicating the code, to do experiment! Without affecting the working code

How Branching Works?

git branch

Explore Existing or Create a new branch

To Create: git branch my_exp_branch

git checkout

Changing from current branch to another branch

git checkout my_branch

git merge

merging your changes from other_branch into the Current branch

git merge other_branch

git branch

Deleting a branch

git branch -d that_branch

git rm

Removing files from git

git rm <filename>

References

- https://try.github.io
- https://git-scm.com/

Questions?

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