

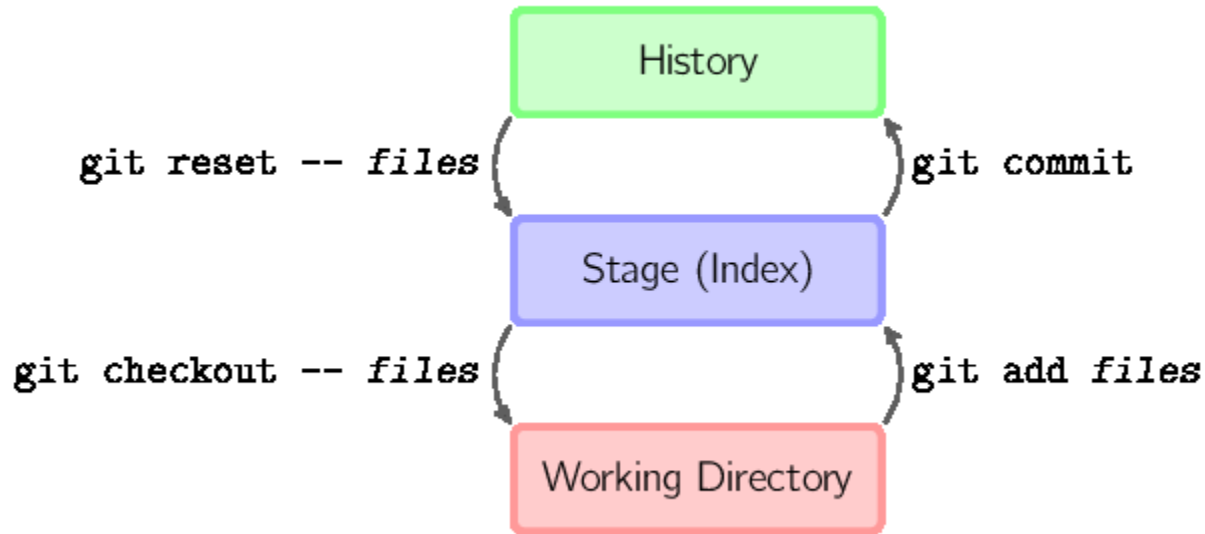
Git(hub) Crash Course

Basics and the GUI

What is Git(hub)?

- Version control system
 - As you make changes, it keeps track of your history
 - If you make a mistake...just go back
- Collaboration tool
 - Decentralized - Every user has their own repository
 - All local repositories usually connected to a central one (**Github**)
 - Allows easy merging of changes to a project

How does it work (locally)



How does it work (remotely)?

- Downstream
 - `git clone` - copies remote rep to local
 - `git pull` - merges remote changes to local
- Upstream
 - `git push` - sends local changes to remote

How to collaborate - branch

- `git pull`
 - make sure you are up-to-date
- `git branch working`
 - create your working branch
- `git checkout working`
 - make your working branch the current branch
- `git commit` - make your changes on your working branch and commit them

How to collaborate - merge

- `git checkout master`
 - change back to master (i.e., where you have not worked)
- `git pull`
 - make sure that your local master is the same as the remote master
- `git merge working`
 - merge the changes from working into master

How to collaborate - push

- `git push`
 - push your changes from your local master back to the remote master
- `git branch -d working`
 - delete your working branch