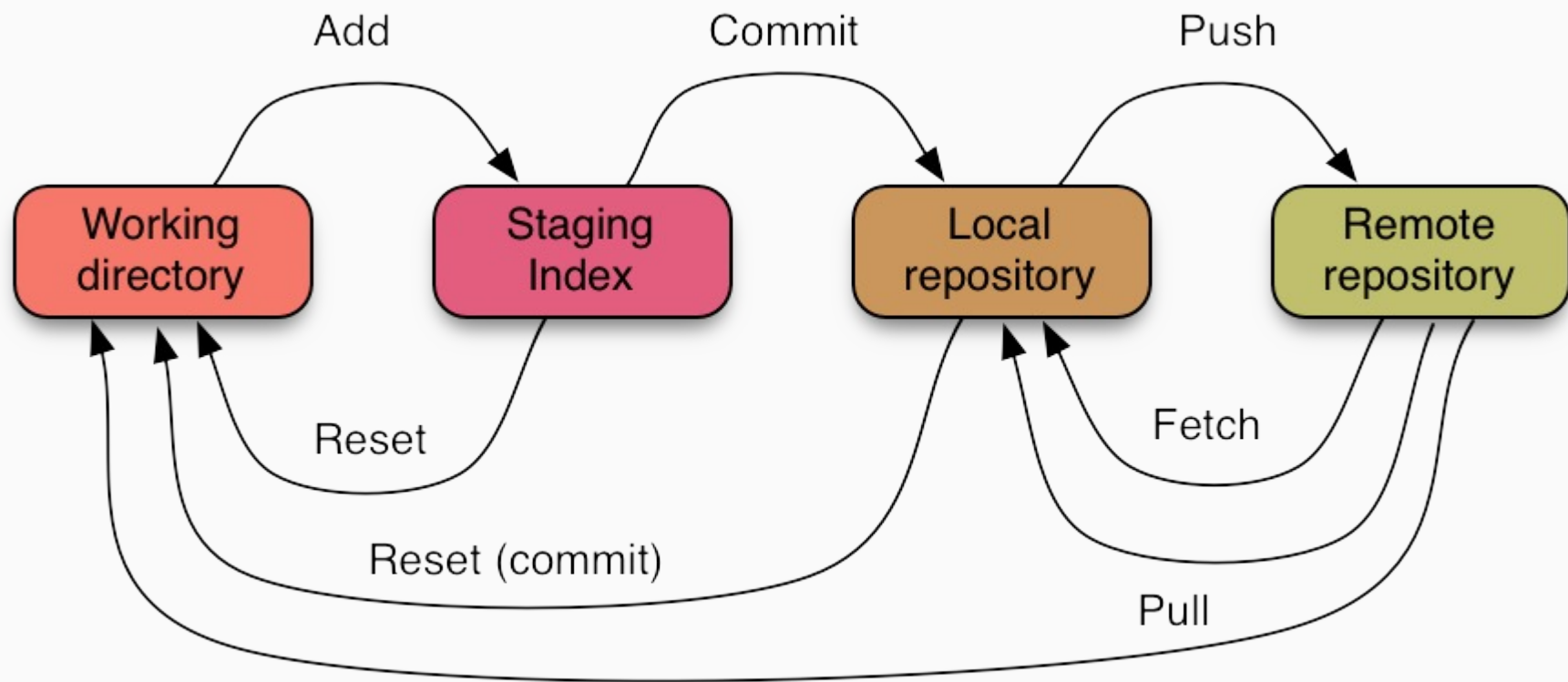


# Git & GitHub

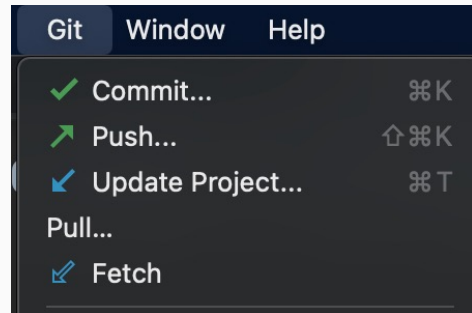
# Recap

- Local and Remote Repository
- Practice committing and pushing
- Add → Commit → Push workflow
- More: Edit commit message, checkout commit



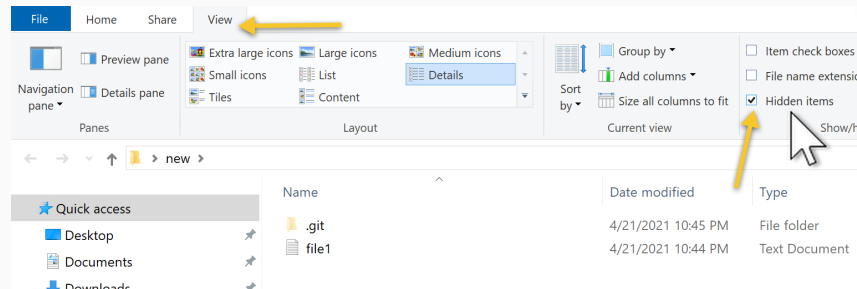
# Git fetch, update, pull

- To check if the remote repository has any changes that our local repository does not have, we can **fetch**
  - Fetch will bring the new data without added to our local project right away
- To update your local repository with the new changes from the remote we can **pull**
  - Pulling is more flexible. We will see later
    - Branch to branch
- **Updating** will apply changes to the same branch



# .git folder

- Local repositories are in the project in a folder called **.git**, which is a hidden folder
- To see hidden folders on Mac, use this shortcut in the folder: Command + Shift + .
- To see hidden folder on Windows, click on the View tab and show Hidden items



# Git Ignore File

- We can ignore files we don't want to keep track of
  - The `.gitignore` file allows you to define names of file/folders you don't want to keep track of changes for
  - The `.gitignore` file is made like any other file
- 
- Note: You can not un-track a file already been tracked using `.gitignore` file. That's why `.gitignore` file usually created before anything get staged.

# Git in IntelliJ – git ignore

- To make a .gitignore file in the project right click on the project level -> create new file -> call it .gitignore
- Add all the files you want to ignore tracking of
- Files to ignore in a java project:
  - .idea, out, \*.xml, \*.iml

## [EXTRA] How to remove folder that accidentally tracked and pushed to GitHub

Example: If you have accidentally pushed your .idea folder with many files in it, here is the steps to untrack it.

- Go to IntelliJ terminal in bottom menu
- Type this command : `git rm -r --cached .idea` and hit enter
  - if it is a file you may omit -r so it will be `git rm --cached fileName`
- This will remove .idea folder from local git repo and will not track it from this

point on.

- Make a commit and select all un-versioned files from commit window and commit
- Push it back to remote and observe it's been removed from remote repo as well



# Reset Commit

Right click on the commit you want to go back to and select Reset Current Branch to Here

Git Reset options:

- Soft: file doesn't update, but changes are staged automatically

- Mixed: file doesn't update, but changes are not staged automatically

- Hard: file will lose all changes until the selected commit

Revert vs Reset: Revert is for pushed commits, history is preserved