



How to “Git Gud”

A short explanation and tutorial on
Git Version Control and Github



What is Version Control?

- “Version Control is the practice of ensuring collaborative data sharing and editing among users of systems that employ different versions of a product.”
- TL;DR: It allows us to track each change that happens in a particular file structure and “rewind” or “fast-forward” as we please.

What do you need?

Windows:

- <https://git-scm.com/>

Linux (apt):

- ``` `sudo apt-get install git` ```

Ease of use (optional):

- <http://www.gitkraken.com/>

Terminology

- **Repository (Repo):** The record of commits made for a particular working directory.
- **Working Directory:** The file structure that is being subject to Git
- **Commit:** The act of saving changes in the working directory to the repository
- **Branch:** A split in the working directory that follows a different chain of commits.
- **Merge:** The act of merging two branches together.
 - **Merge Conflict:** When the two branches being merged have changes made in the exact same area.

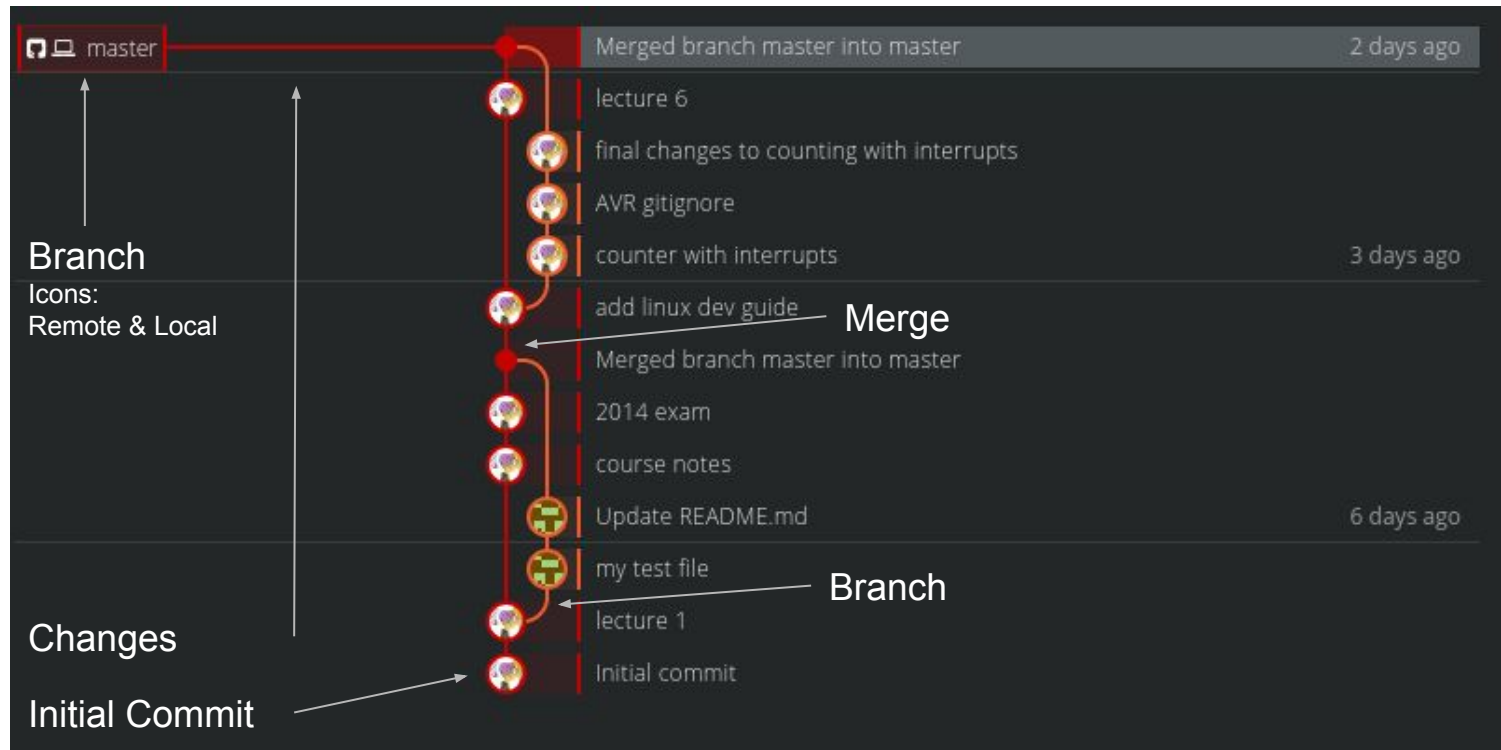
Terminology (2)

- **Local:** Refers to the repository on the local machine
- **Remote:** Refers to the repository that is on Github or other Git service.
- **Push:** The act of uploading new commits and/or branches to the remote repository.
- **Pull:** The act of downloading ... (as for push)
- **Stash:** A stack based structure for storing working directory changes that have not been committed yet
 - This is useful for pulling changes without committing or discarding your own changes.
 - Changes can be stashed and applied freely but remember that it is stack based.



How does it Work?





Screenshot: GitKraken

Branch early, and branch
often.