



git and Github

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Version control in 2 parts

git through command line

git and Github

What is git?



# git

git was

originally developed by Linus Torvalds to store and  
version Linux

Who uses git?



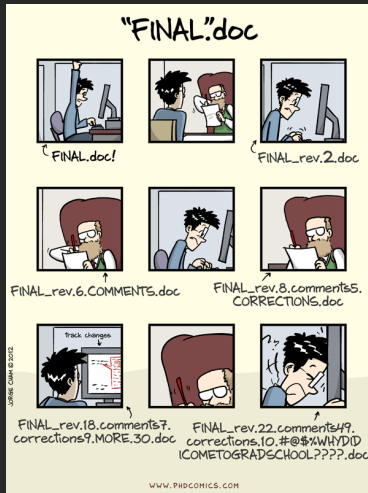
Who uses git?



## Version control:

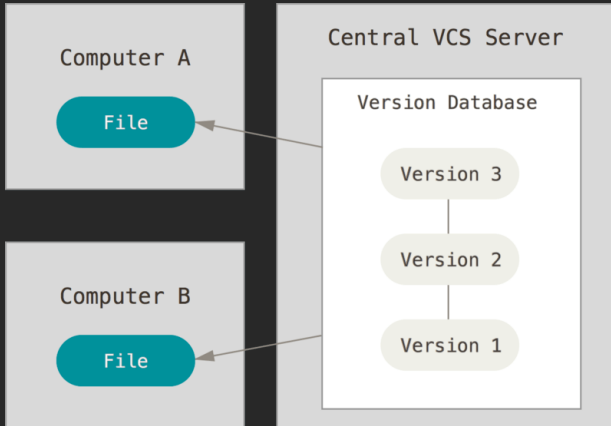
System that tracks changes to files,  
such that the user can recall different  
versions at any time

# Why use git?



<https://phdcomics.com/>

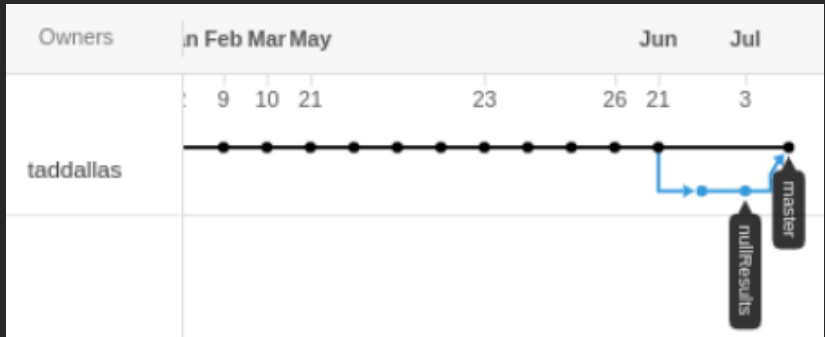
# How does git work?



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



# How does git work?

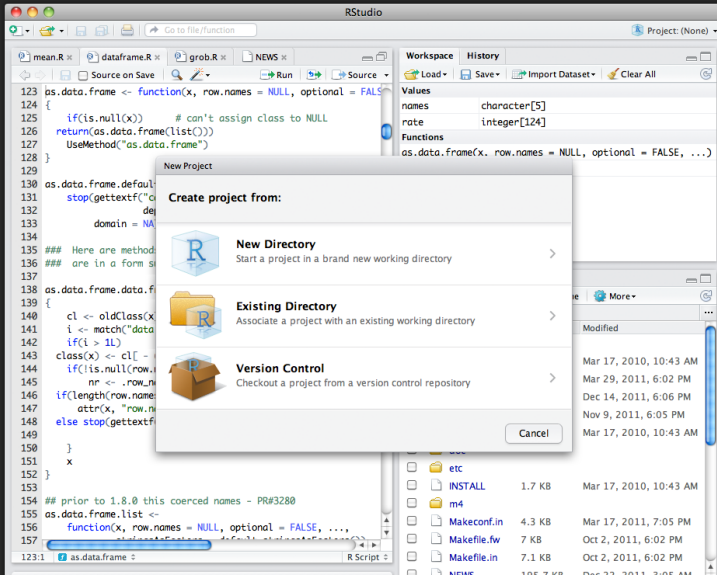


# How does git work?

	COMMENT	DATE
○	CREATED MAIN LOOP & TIMING CONTROL	14 HOURS AGO
○	ENABLED CONFIG FILE PARSING	9 HOURS AGO
○	MISC BUGFIXES	5 HOURS AGO
○	CODE ADDITIONS/EDITS	4 HOURS AGO
○	MORE CODE	4 HOURS AGO
○	HERE HAVE CODE	4 HOURS AGO
○	AAAAAAAAA	3 HOURS AGO
○	ADKFJSLKDFJSDKLFJ	3 HOURS AGO
○	MY HANDS ARE TYPING WORDS	2 HOURS AGO
○	HAAAAAAAAAANDS	2 HOURS AGO

AS A PROJECT DRAGS ON, MY GIT COMMIT MESSAGES GET LESS AND LESS INFORMATIVE.

# git + Rstudio



# A simple example

Commands to cover:

- init
- remote
- add
- commit
- status
- branch
- checkout













What is Github?



# GitHub

git repository hosting service and development platform

# Who uses Github?

Rank	Organization	Star
1	 google	767253
2	 facebook	754310
3	 Microsoft	474776
4	 apache	340959
5	 freeCodeCamp	318318
6	 vuejs	266300
7	 airbnb	230072
8	 alibaba	226944
9	 angular	218022
10	 square	193667

## Why use Github?

- Open data/code facilitates contributions
- Initiate collaborations
- Track issues
- Assign tasks
- Track progress (milestones)

Github repo != depositing data/code for manuscripts



# A simple walkthrough

- Set remote.
- Push to repo.
- File an issue.
- Create a branch.
- Create new content.
- Push.
- Pull request.
- Look at commit history and diff.
- Comment on a commit or issue.
- Reference an issue or commit in a comment.
- View milestones.

## git with Rstudio

[jennybc.github.io/2014-05-12-ubc/ubc-r/session03\\_git.html](https://jennybc.github.io/2014-05-12-ubc/ubc-r/session03_git.html)

## git tutorials

[try.github.io/](https://try.github.io/)  
[guides.github.com/](https://guides.github.com/)  
[www.codecademy.com/learn/learn-git](https://www.codecademy.com/learn/learn-git)

## git GUIs

[git-scm.com/download/gui/windows](https://git-scm.com/download/gui/windows)  
[git-scm.com/download/gui/mac](https://git-scm.com/download/gui/mac)  
[git-scm.com/download/gui/linux](https://git-scm.com/download/gui/linux)

## Contact



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