Meet the toolkit: version control and collaboration

Data Science in a Box datasciencebox.org



Course toolkit

Course operation

- Course website
- Moodle

Doing data science

- Programming:
 - R
 - RStudio
 - tidyverse
 - R Markdown
- Version control and collaboration:
 - Git
 - GitHub



Git and GitHub



Git and GitHub



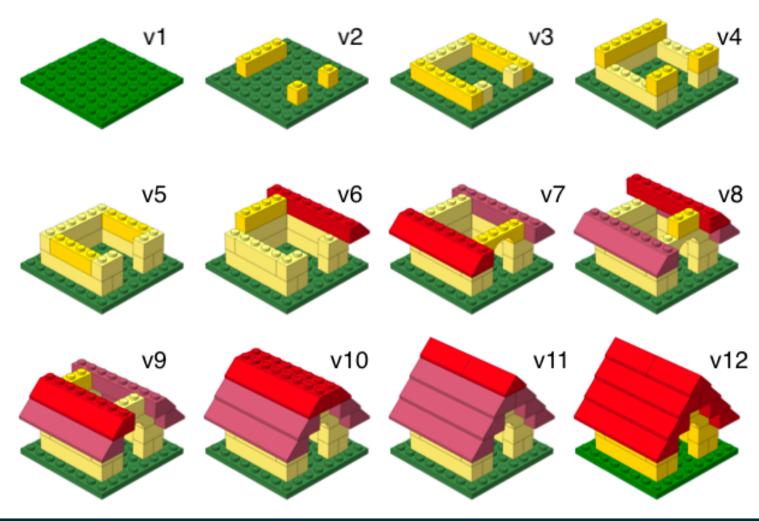
- Git is a version control system -- like "Track Changes" features from Microsoft Word, on steroids
- It's not the only version control system, but it's a very popular one



- GitHub is the home for your Git-based projects on the internet -- like DropBox but much, much better
- We will use GitHub as a platform for web hosting and collaboration (and as our course management system!)

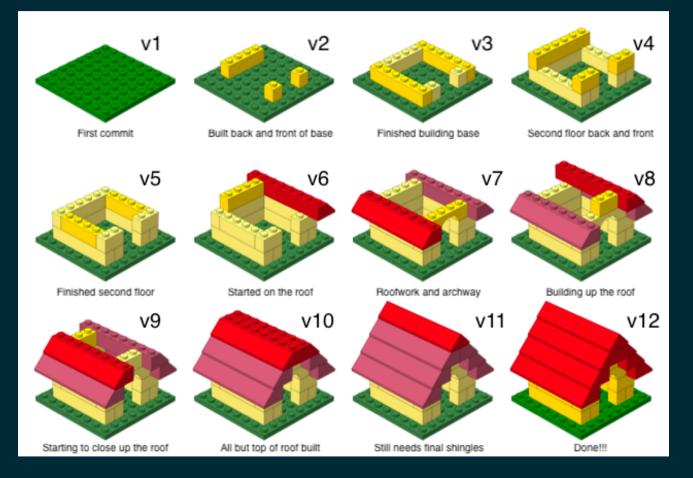


Versioning





Versioning with human readable messages





Why do we need version control?

"FINAL".doc





FINAL.doc!



FINAL_rev.6.COMMENTS.doc



FINAL_rev.8.comments5. CORRECTIONS.doc







FINAL_rev.18.comments7. corrections9.MORE.30.doc

FINAL_rev.22.comments49. corrections.10.#@\$%WHYDID ICOMETOGRADSCHOOL????.doc

WWW. PHDCOMICS. COM











Git and GitHub tips

 There are millions of git commands -- ok, that's an exaggeration, but there are a lot of them -- and very few people know them all. 99% of the time you will use git to add, commit, push, and pull.



Git and GitHub tips

- There are millions of git commands -- ok, that's an exaggeration, but there are a lot of them -- and very few people know them all. 99% of the time you will use git to add, commit, push, and pull.
- We will be doing Git things and interfacing with GitHub through RStudio, but if you google for help you might come across methods for doing these things in the command line -skip that and move on to the next resource unless you feel comfortable trying it out.



Git and GitHub tips

- There are millions of git commands -- ok, that's an exaggeration, but there are a lot of them -- and very few people know them all. 99% of the time you will use git to add, commit, push, and pull.
- We will be doing Git things and interfacing with GitHub through RStudio, but if you google for help you might come across methods for doing these things in the command line -skip that and move on to the next resource unless you feel comfortable trying it out.
- There is a great resource for working with git and R: happygitwithr.com. Some of the content in there is beyond the scope of this course, but it's a good place to look for help.



Tour: Git and GitHub

- Create a GitHub account
- Verify your GitHub email
- Adjust your GitHub settings for a more pleasant GitHub experience
 - Settings > Emails > Uncheck "Keep my email address private"
 - Settings > Emails > Update name and photo

Later...

Work with R, RStudio, Git, and GitHub together!⁺

⁺Just like a real data scientist!



Your turn: AE 02 - Bechdel + R Markdown

- The Bechdel test asks whether a work of fiction features at least two women who talk to each other about something other than a man, and there must be two women named characters.
- Go to RStudio Cloud and start the assignment AE 02 Bechdel + R Markdown.
- Open and knit the R Markdown document bechdel.Rmd, review the document, and fill in the blanks.

