

Outline of Class Session: Week 1

Data Computing

1. An example of data and visualization: Chris Wells and what ships can tell us about environmental history.
 - Origins of American shipping
 - What's a bark? PDF & Rmd
2. How the course is organized
 - Weekly in-class projects
 - Weekly short-answer questions
 - Experiment for this semester: DataCamp exercises
 - Short final exam
 - Expectations for achievement: Reading proficiency
 - There's a lot of tacit knowledge behind reading, so in order to read you have to know a lot.
 - Example: Robinson Crusoe excerpt
 - Time budget: 3 hours per week outside of class. Includes reading, short answers, finishing weekly project, etc.
3. Meet and greet. Introduce yourself in this shared document
4. GitHub tour.
 - Go to <github.com/dtkaplan/comp110>
 - Make an account now if you don't have one and fill in this form
5. RStudio server <rstudio.macalester.edu> login with Mac email credentials.
 - Tour and names
 - Set default for "notebooks"
 - Two commands:

```
system('git config --global user.name "Your name"')
system('git config --global user.email "Your github email"')
```
 - Go to Tools/Global Options/GIT / SVN
 - create a key
 - "View public key". Copy and paste.
6. Back to your GitHub account: github.com/your_user_ID
 - Go to "Edit profile" then "SSH and GPG keys".
 - Add a new key. Give it a description like "Mac rstudio server" and past in the public key you copied from step (5).
7. Back again to rstudio.macalester.edu
 - Copy this address: `git@github.com:dtkaplan/Comp-110-Assignments.git` to your clipboard
 - Go to FILE/NEW PROJECT/VERSION CONTROL/GIT
 - Paste in the address you just copied.
 - Press "Create Project"
8. Create your own branch of the project. Still on rstudio.macalester.edu do this:
 - Go to the Git tab. Observe that the branch name is "master".
 - Give this command: `system("git checkout -b <your_mac_email_address>")`
 - Observe that the branch name (in the Git tab) is .
 - Give this command: `system("git push -u origin <your_mac_email_address>")`
9. Open `Week-1-project.Rmd`.
 - Although we have been giving some commands in the "console", we're not going to do much of that. Instead, you'll put commands into .Rmd files and execute them in the file.
 - On the server, the results will unfortunately appear in the console.
 - On the Preview Desktop version, they will appear in-line. This is nicer, but maybe just for the instructor.
 - Verify that you can compile it. Then, write a brief essay about a historical figure or event. Include
 - Two sections

- A picture from the web
 - A bullet list
 - An enumerated list
 - A chunk that calculates $\sin(\sqrt{pi})$ and assigns the resulting object to the name `my_number`.
 - A second chunk that takes the square of the arcsin of `my_number`
 - Try different ways to execute any or all chunks.
 - Compile the document.
10. Hand in your document:
- stage the Rmd and html files
 - commit. Give a meaningful message.
 - pull.
 - push.

Danny Kaplan. Compiled at Wed Jan 25 17:39:12 2017.