RSTUDIO BASICS: COMMON ISSUES WITH RMD

OUTLINE

RStudio
- What is Rstudio?
- R vs RMD
- RMD file vs Console

Common Issues / FAQs
- Installing vs Loading Packages
- Set Working Directory
- Paths: Absolute vs Relative
- Pipe Operator: Update tidyverse
- Macs
  - XQuartz
- Trouble Shooting
  - Read Error Messages
  - Inspect Console

Knitting RMD Files
- Steps
- Common Issues
  - I/O
  - View()
  - Xquartz (Mac)

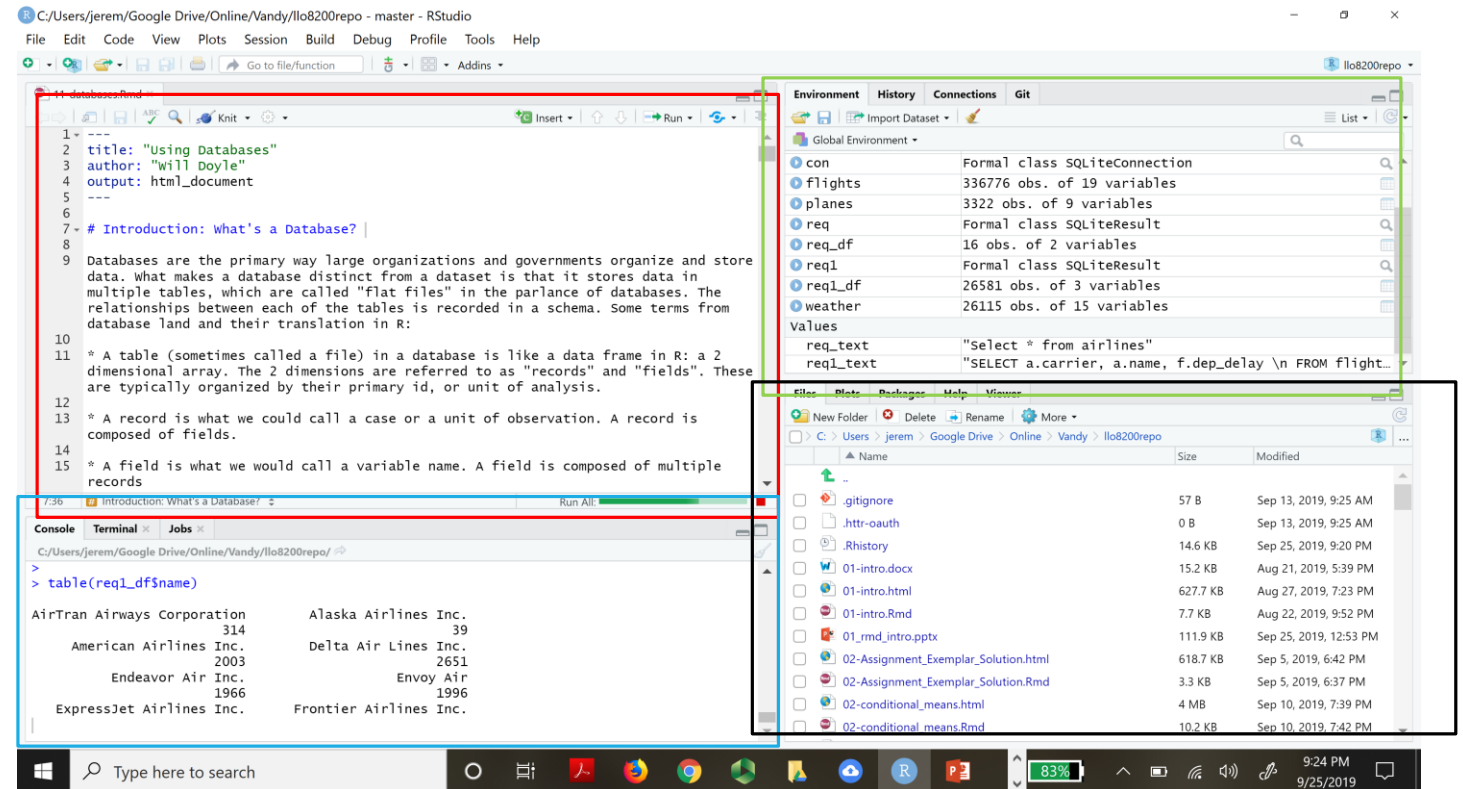Github
- What is Github
- How do I get files
- Pull Requests

RSTUDIO INTERFACE

Interpreter

- Executes R code

Interface

- Split into quadrants
  - Viewer
  - Environment
  - Console
  - Files / Directory

VIEWER VS CONSOLE

Viewer vs **Console**

- Files vs console
- Command prompt

R VS RMD

RMD

- R-chunks
- Plain Text
- Formatting
  - See knit tutorial
- Execution
  - Run
  - Run by chunk
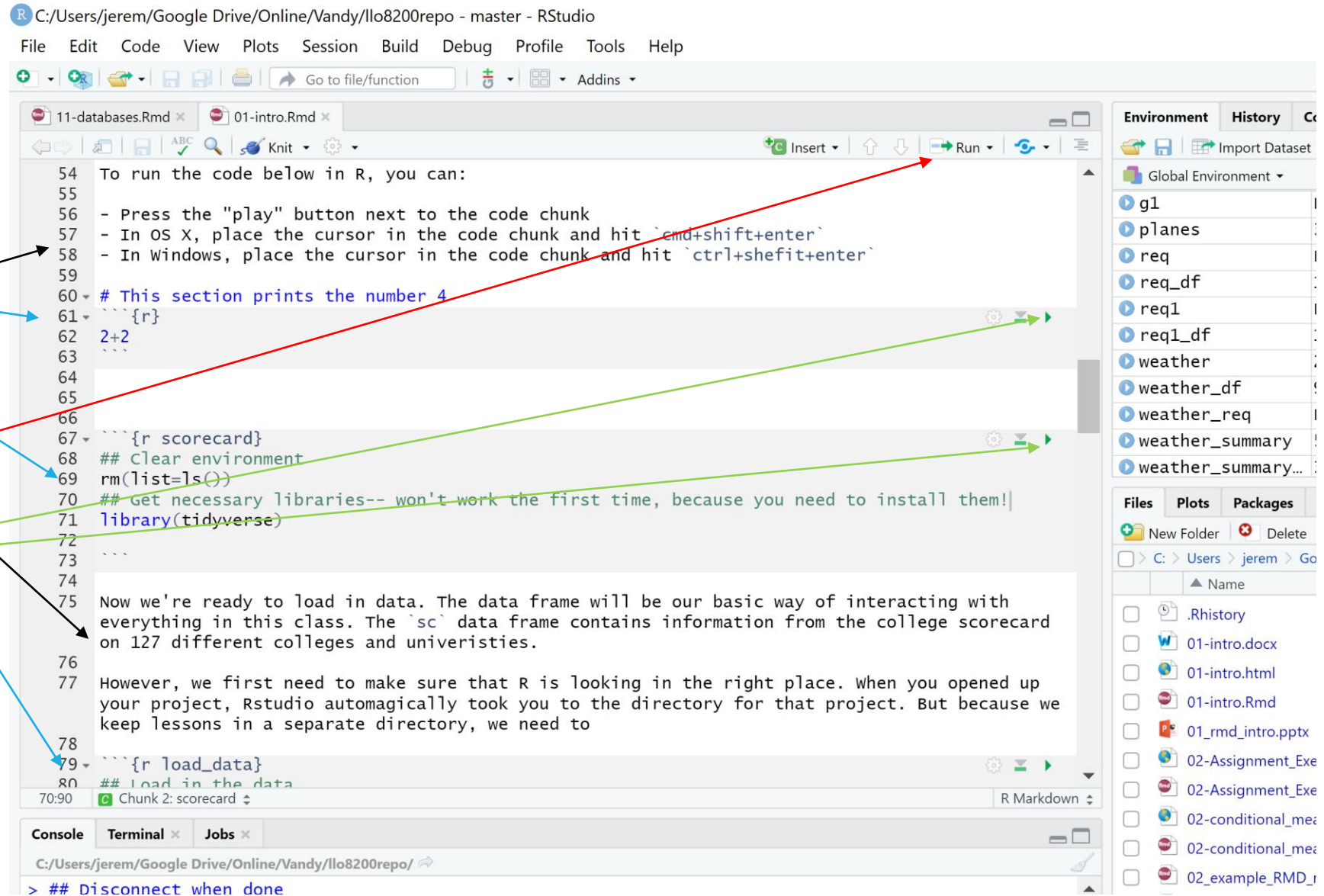
INSTALLING VS LOADING PACKAGES

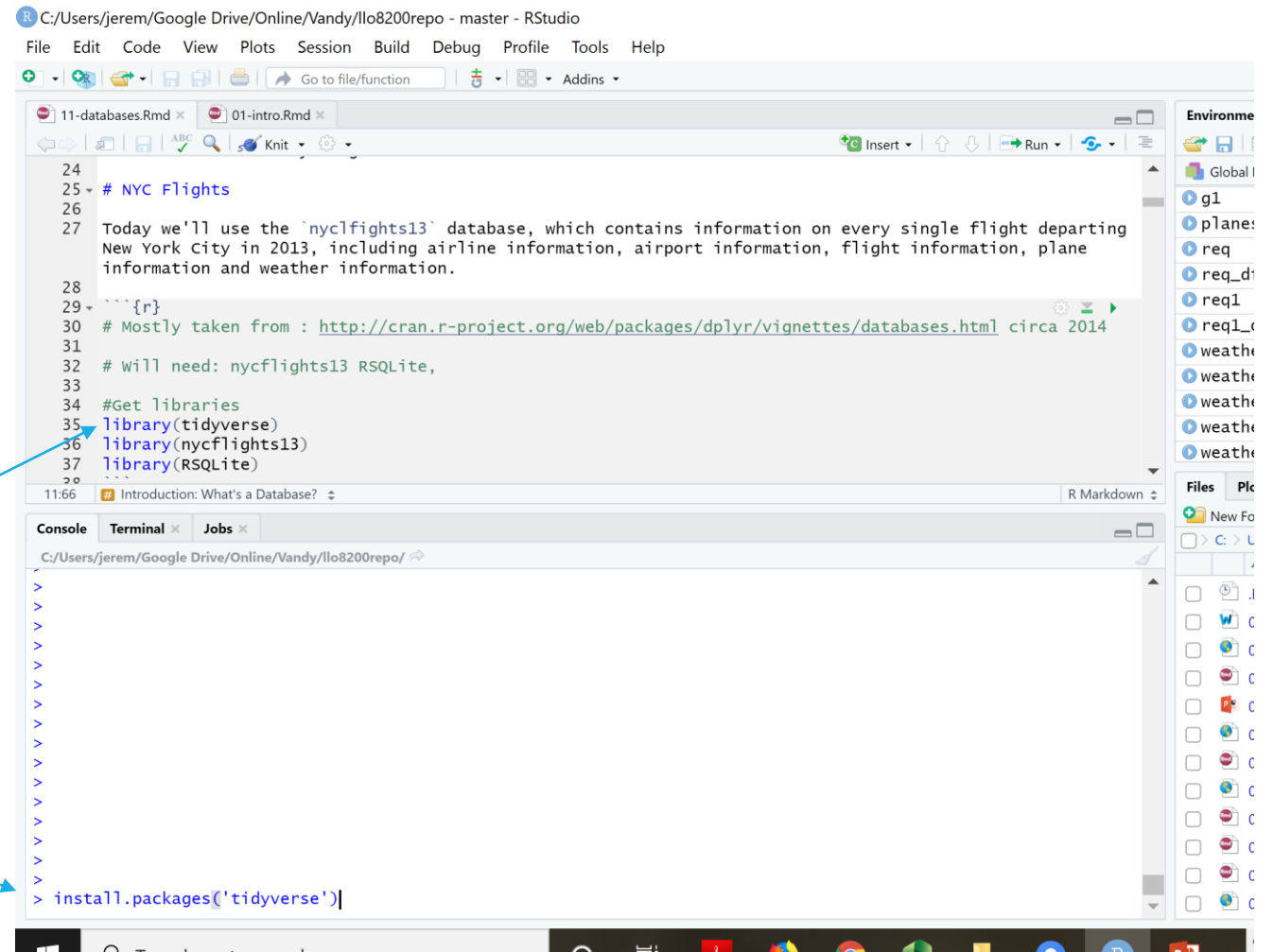## Packages

- We will use many packages throughout the term
- Each package will need to be installed once
- Each package to be used must be loaded prior to each use

- Example
  - Install tidyverse
  - Load tidyverse

WORKING DIRECTORY

The working directory is the folder where you executing program has access

- To read files
- Load data
- Write files
- etc
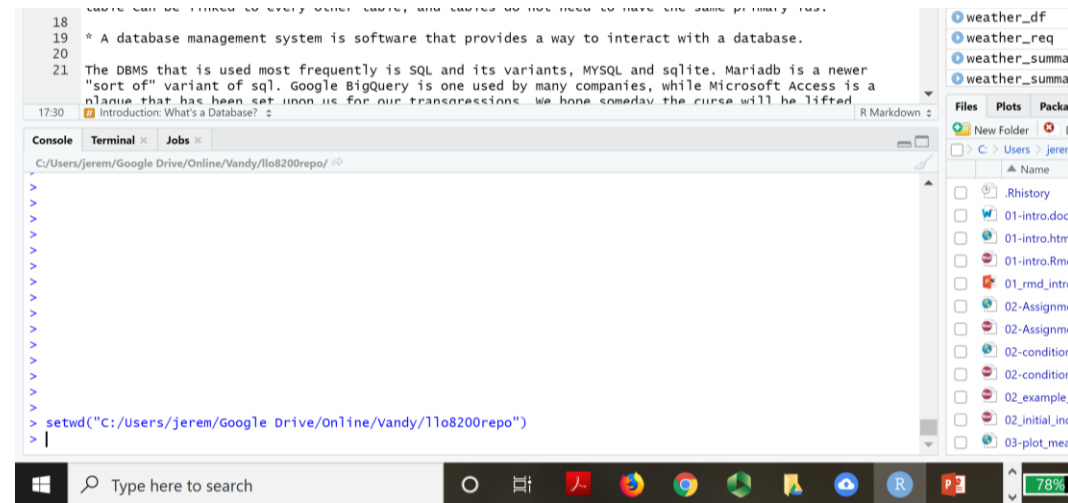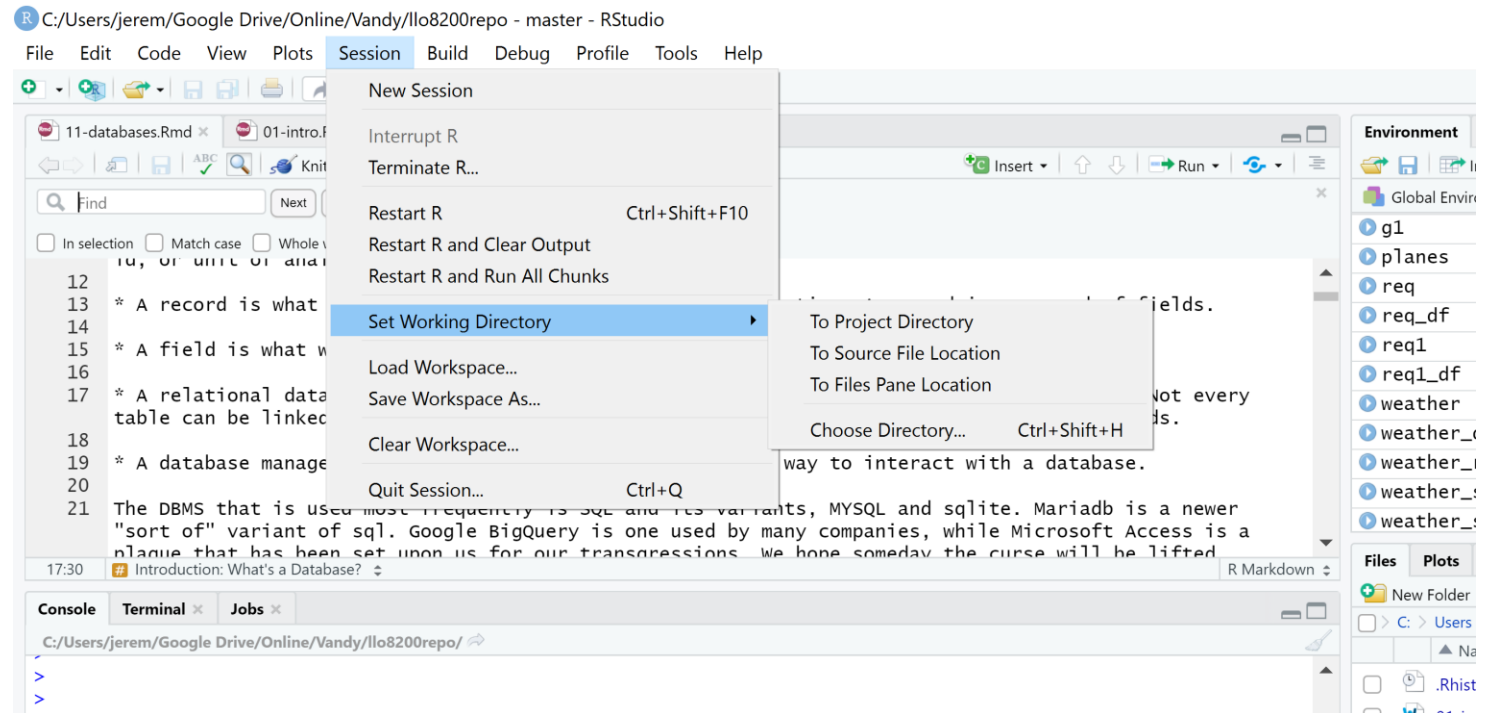
ABSOLUTE VS RELATIVE PATHS

Absolute path is a sequence of names of of folders starting at the root directory and ending at a file name

```
load("C:/Users/jerem/Google Drive/Online/Vandy/llo8200repo/cex.Rdata")
```

Relative path may only include the file name.

load("cex.Rdata")
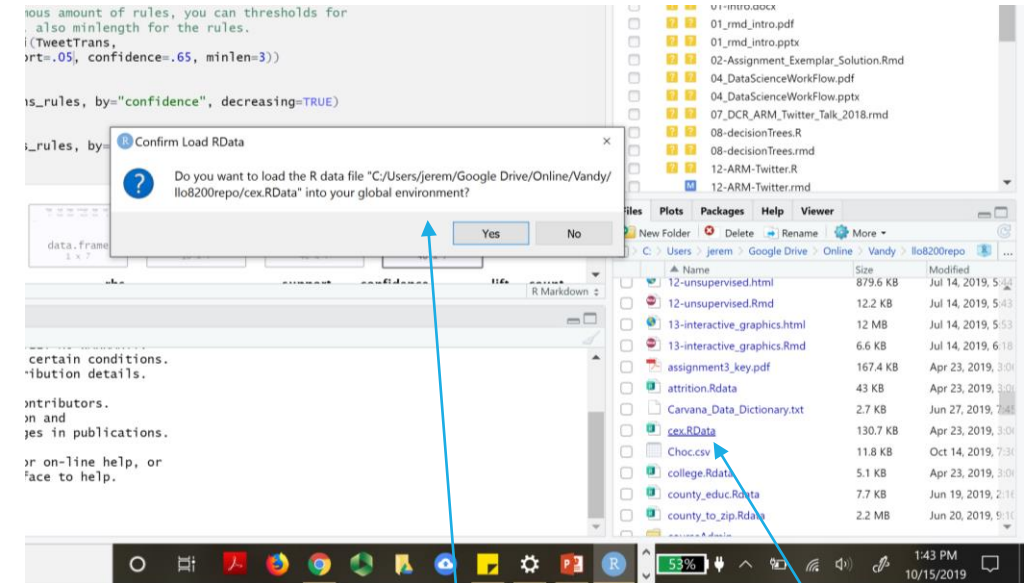
Click here

Find absolute path here

PIPE OPERATOR

Pipe Operator: %>%

Common issues / fixes

    update tidyverse

    mac users: install xquartz

On **Mac OS X** if you use RStudio or R from the terminal, you must have a copy of XQuartz, the X11 window manager, installed. This is no longer a default install since Mac OS X 10.8. You need to install XQuartz. Logout and login for the installation to take effect.

You can get it from https://xquartz.macosforge.org/landing/.

This page is also linked from the Download R for (Mac) OS X page.

TROUBLE SHOOTING

Troubleshooting and debugging is part of the programming experience. I cannot help you overcome all obstacles; instead you will learn to be self-sufficient.

1. Read the error messages – they can be very useful
   1. What lines are mentioned?
   2. What key words are mentioned?

2. Check the console
   1. Error messages are here
   2. Assess the state of execution

KNITTING RMD FILES

Knitting RMD Files

- FIRST: *Read the tutorial I posted … it contains all info you will need.*

- Common Issues
  - I/O
    - Remove I/O if possible, otherwise you may not be able to knit … which is OK
  - View()
    - Fix: Simply remove or comment out this code as it is for viewing only
  - Xquartz (Mac)
    - Install and run xquartz
    - See tutorial posted.
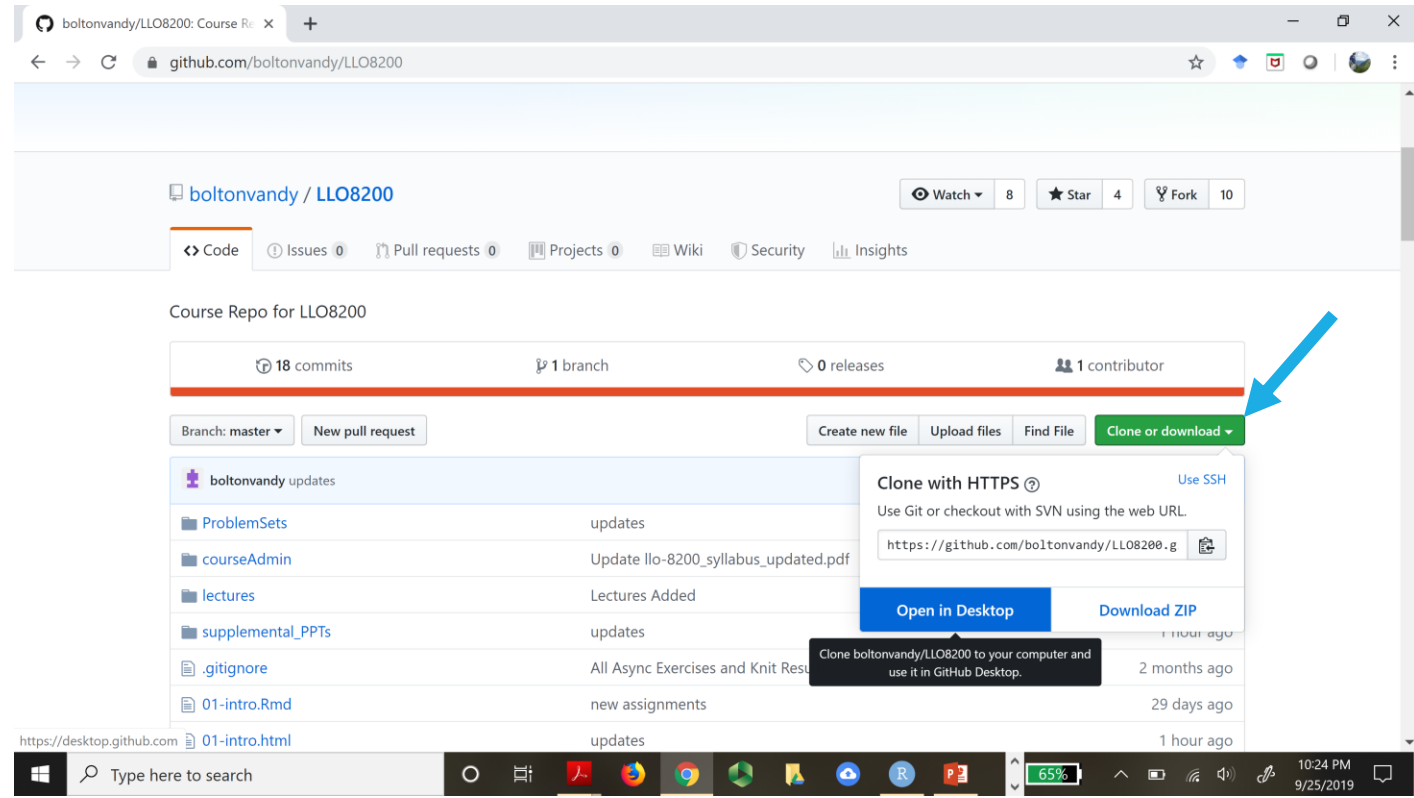 - R-Chunk Labels must be unique!!

GITHUB

Github

- A repository for documents which supports
  - Version control
  - Cloud storage / access
  - Collaboration

Course

- ALL course documents are on course Git Repository.
  Do not use files on LMS.

- Get course documents by cloning the course repo

- You may also "link" Rstudio with Git but this is not necessary.

CLONE AND PULL (FETCH) REQUESTS

Git nomenclature

- Clone: download a copy of the repository
  - Previous slide
- Pull: update your copy of the repository to include any recent updates

Github Desktop or Git GUI

- Interface to manage repositories
- Download Github desktop to help with pull requests