

**Workflow basics, RMarkdown,
git/Github**

Cleaning up

Cleaning up

The screenshot shows the RStudio Cloud interface. The top navigation bar includes 'Your Workspace / Intro to R & RStudio (day 2)' and the user name 'Amelia McNamara'. The main menu includes 'File', 'Edit', 'Code', 'View', 'Plots', 'Session', 'Build', 'Debug', 'Profile', 'Tools', and 'Help'. The toolbar contains icons for file operations and a search bar. The main workspace is divided into several panes:

- Environment Pane:** Shows the 'Global Environment' with a search bar and a 'List' button. A red circle highlights the 'Import Dataset' button.
- Data Pane:** Lists data objects: 'babynames' (1858689 obs. of 5 variables), 'band' (3 obs. of 2 variables), and 'GSS' (2540 obs. of 15 variables).
- Files Pane:** Shows a file explorer with a 'Home' directory containing 'project' and 'R' folders.
- Code Editor:** Contains the following R code:

```
The downloaded source packages are in
  '/tmp/RtmpbwU0xs/downloaded_packages'
> library(readr)
> band <- read_csv("project/data/band.csv")
Parsed with column specification:
cols(
  name = col_character(),
  band = col_character()
)
> View(band)
> |
```
- Table View:** Displays a table with columns: Year, ID, LaborStatus, MaritalStatus, NumChildren, Age, HighestSchoolCompleted, and Sex. The first 8 rows are visible, showing data for the year 2014.

The table data is as follows:

	Year	ID	LaborStatus	MaritalStatus	NumChildren	Age	HighestSchoolCompleted	Sex
1	2014	1	Working fulltime	Divorced	0	53.000000		16
2	2014	2	Working fulltime	Married	0	26.000000		16
3	2014	3	Unempl, laid off	Divorced	1	59.000000		13
4	2014	4	Working parttime	Married	2	56.000000		16
5	2014	5	Retired	Married	3	74.000000		17
6	2014	6	Working fulltime	Married	1	56.000000		17
7	2014	7	No answer	Married	2	63.000000		12
8	2014	8	Working fulltime	Married	2	74.000000		17

Showing 1 to 8 of 2,540 entries

Cleaning up

The screenshot shows the RStudio Cloud interface. The main window displays a data table with columns: Year, ID, LaborStatus, MaritalStatus, NumChildren, Age, and HighestSchoolCompleted. The Environment pane on the right shows the Global Environment with objects: babynames (1858689 obs. of 5 variables), band (3 obs. of 2 variables), and GSS (2540 obs. of 15 variables). A dialog box titled "Confirm Remove Objects" is overlaid on the interface, asking "Are you sure you want to remove all objects from the environment? This operation cannot be undone." with an option to "Include hidden objects" and buttons for "Yes" and "No". The "Yes" button is circled in red. The Console pane at the bottom shows the following R code:

```
The downloaded source packages are in
  '/tmp/RtmpbwU0xs/downloaded_packages'
> library(readr)
> band <- read_csv("project/data/band.csv")
Parsed with column specification:
cols(
  name = col_character(),
  band = col_character()
)
> View(band)
> |
```

Cleaning up

The screenshot shows the RStudio Cloud interface. The top navigation bar includes 'Your Workspace / Intro to R & RStudio (day 2)' and the user name 'Amelia McNamara'. The main menu bar contains 'File', 'Edit', 'Code', 'View', 'Plots', 'Session', 'Build', 'Debug', 'Profile', 'Tools', and 'Help'. The 'File' menu is open, with 'Close All' circled in red. The 'Environment' pane shows 'Global Environment' and 'Environment is empty'. The 'Files' pane shows a file browser with 'project' and 'R' folders. The console window shows the following R code and output:

```
The downloaded source packages are in
  '/tmp/RtmpbwU0xs/downloaded_packages'
> library(readr)
> band <- read_csv("project/data/band.csv")
Parsed with column specification:
cols(
  name = col_character(),
  band = col_character()
)
> View(band)
> |
```

MaritalStatus	NumChildren	Age	HighestSchoolCompleted	Sex
Divorced	0	53.000000	16	
Married	0	26.000000	16	
Divorced	1	59.000000	13	
Married	2	56.000000	16	
Married	3	74.000000	17	
Married	1	56.000000	17	
Married	2	63.000000	12	
Married	2	74.000000	17	

Cleaning up

The screenshot shows the RStudio Cloud interface. The browser address bar displays `https://rstudio.cloud/project/13632`. The page title is "Your Workspace / Intro to R & RStudio (day 2)". The user's name, "Amelia McNamara", is visible in the top right corner. The main interface is divided into several panes:

- Menu Bar:** File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help.
- Code Editor:** Contains R code for installing and loading the 'readr' package, reading a CSV file, and viewing it. The console output shows the successful installation and execution of the code.
- Console:** Displays the output of the R code, including package installation progress and the result of the `View(band)` command. A red circle highlights the "Clear Console" button in the console's toolbar.
- Environment:** Shows the current environment is empty.
- Files:** Shows the file structure, including a folder named "project" and a file named "R".

```
~/
tryin
Conte
=====
downl
* ins
** pa
** R
** da
*** m
** preparing package for lazy loading
** help
*** installing help indices
** building package indices
** testing if installed package can be loaded
* DONE (nycflights13)

The downloaded source packages are in
  '/tmp/RtmpbwU0xs/downloaded_packages'
> library(readr)
> band <- read_csv("project/data/band.csv")
Parsed with column specification:
cols(
  name = col_character(),
  band = col_character()
)
> View(band)
> |
```

Cleaning up

The screenshot shows the RStudio Cloud interface. The browser address bar displays `https://rstudio.cloud/project/13632`. The workspace is titled "Intro to R & RStudio (day 2)". The menu bar includes File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, and Help. The toolbar shows icons for file operations and a search bar. The console window is active, showing a prompt `>`. The environment window is open, displaying the following R code:

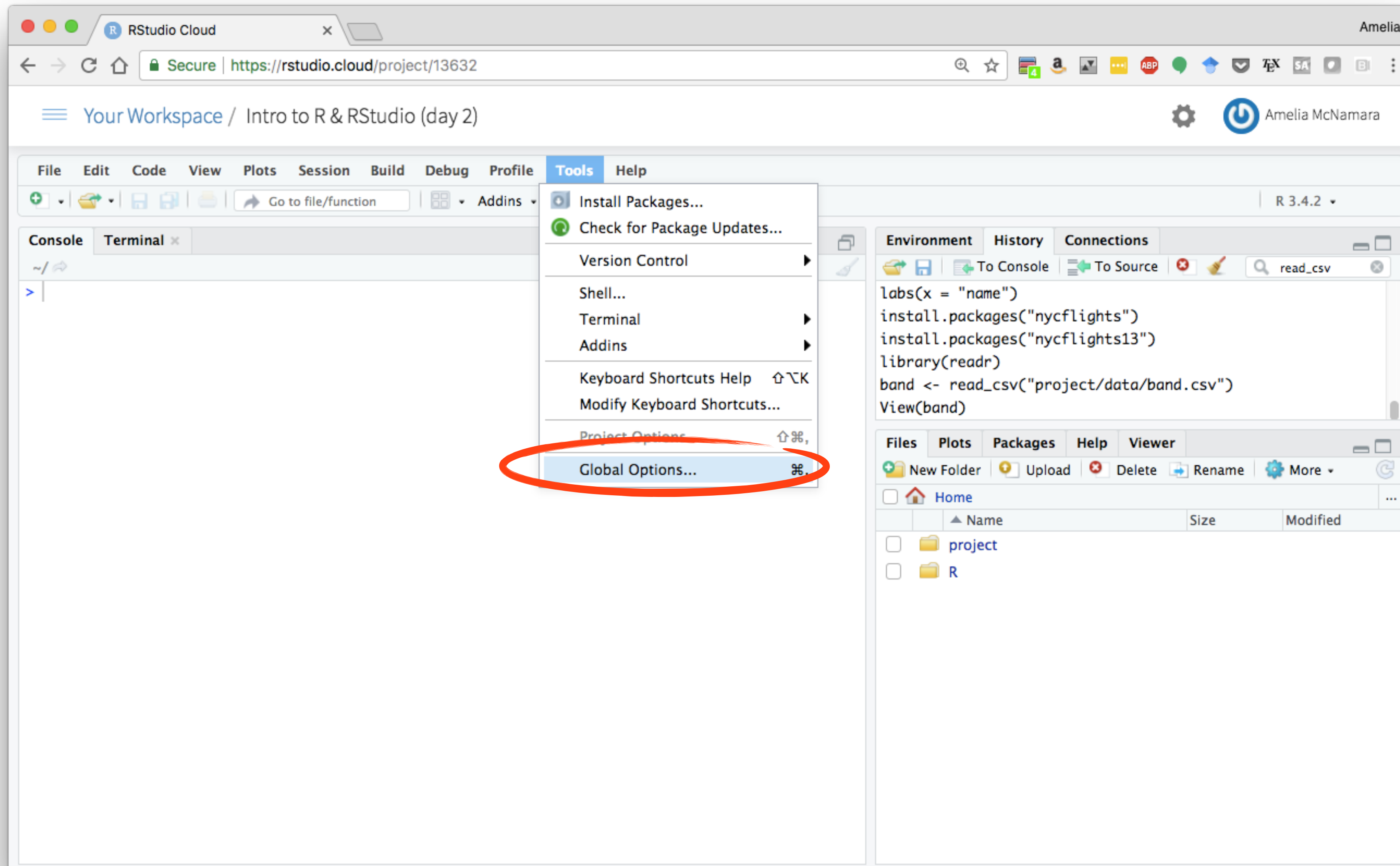
```
labs(x = "name")
install.packages("nycflights")
install.packages("nycflights13")
library(readr)
band <- read_csv("project/data/band.csv")
View(band)
```

The code in the environment window is circled in red. Below the code, the file browser shows a directory structure with folders named "project" and "R".

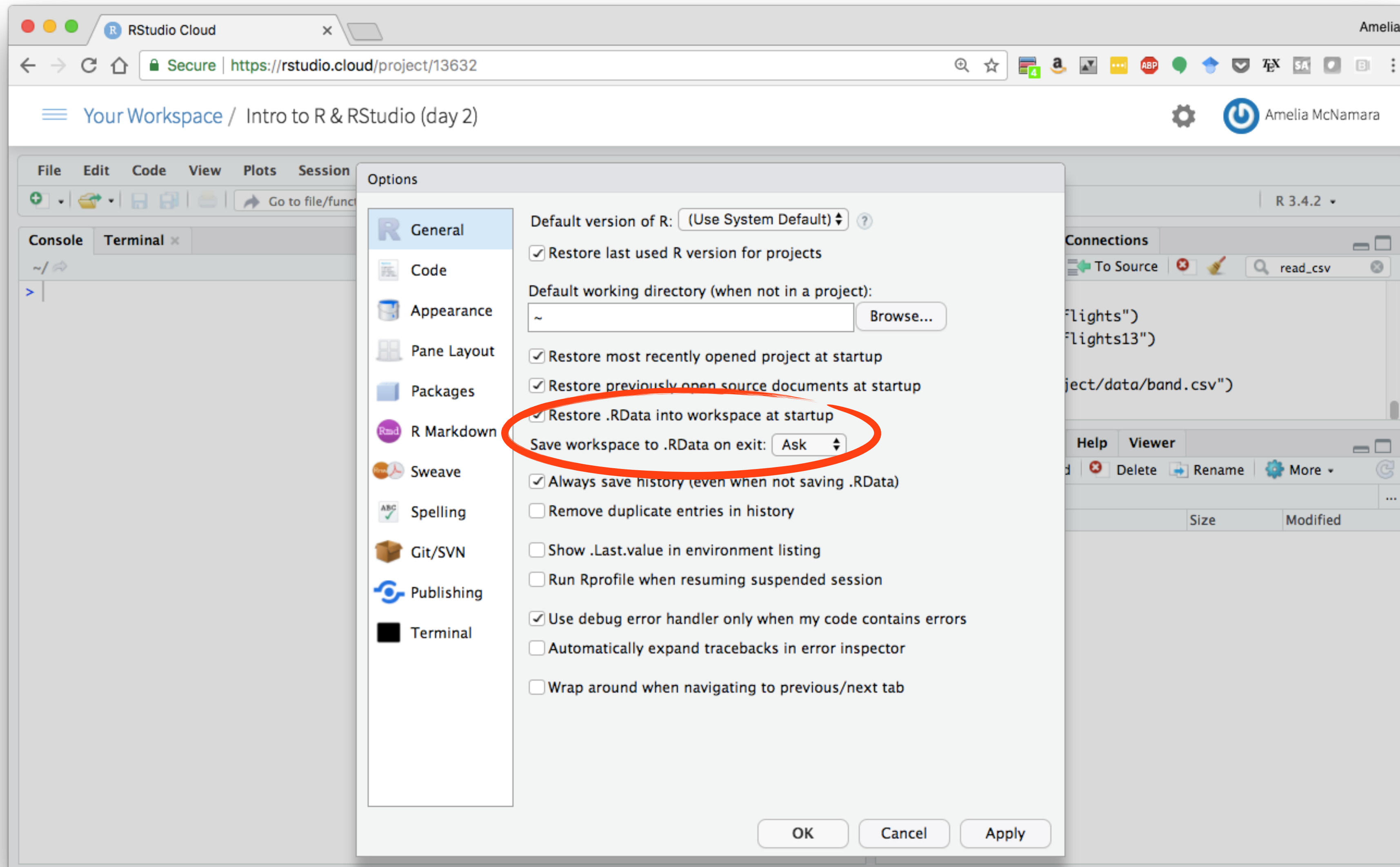
Don't worry,
your history is
preserved

Settings

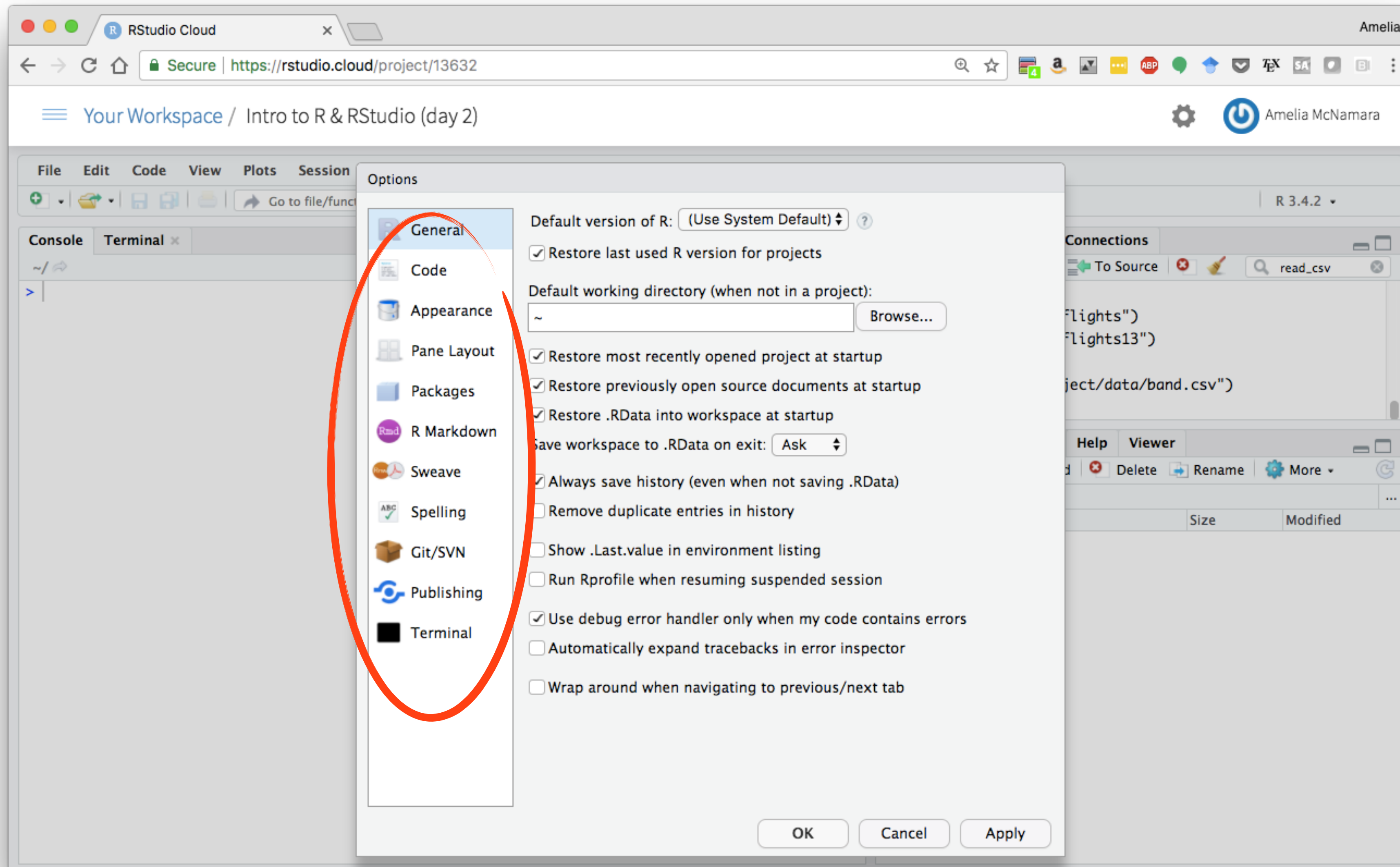
Cleaning up



Cleaning up



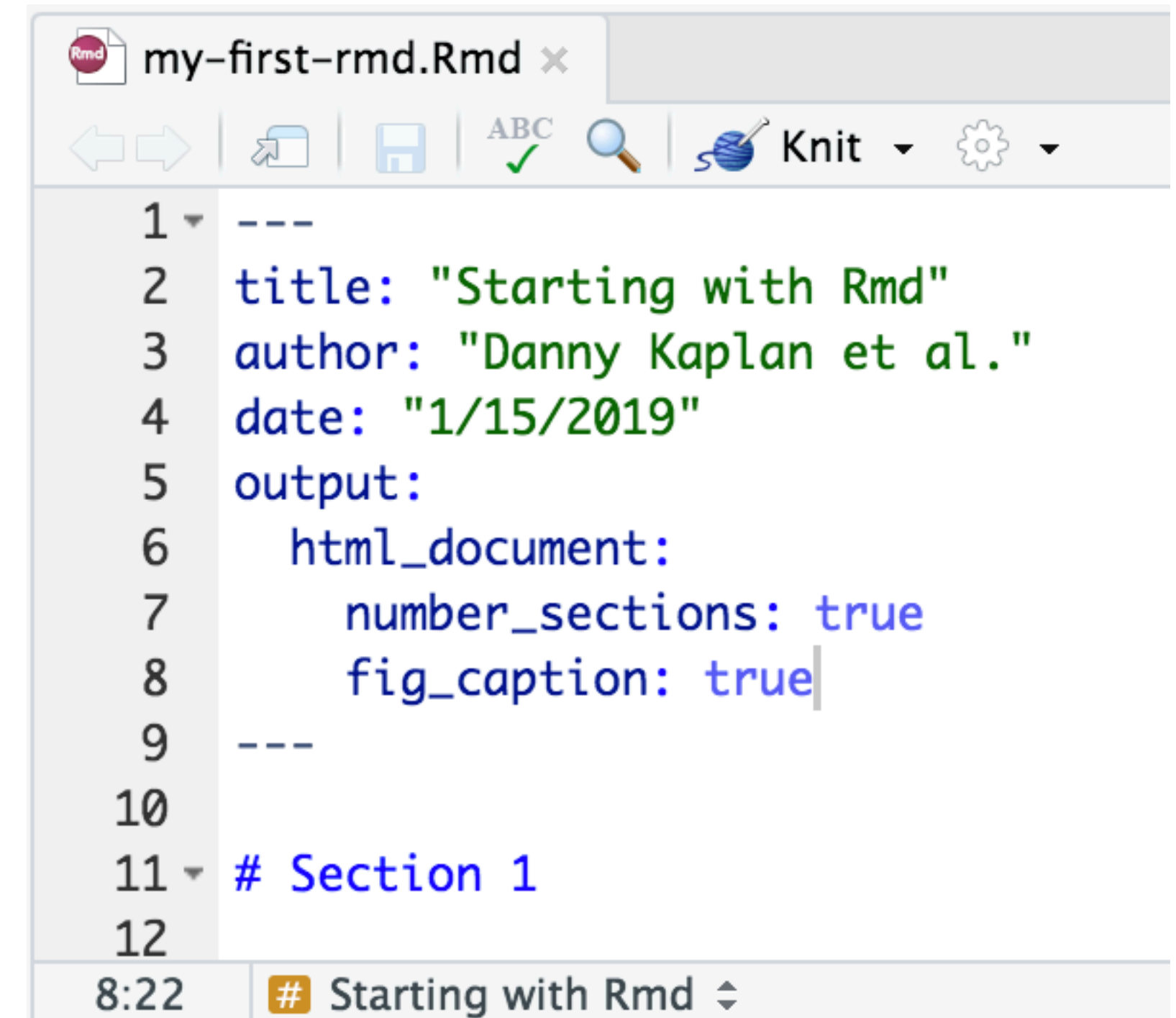
Lots more options!



RMarkdown

Structure of an Rmd file

- ▶ **Minimum requirement: File name ends with .Rmd**
- ▶ **A little richer: first several lines are YAML markup**
 - Connect to other systems, e.g. Shiny, blowdown, book down
 - Set style and document output format



```
1 ---
2 title: "Starting with Rmd"
3 author: "Danny Kaplan et al."
4 date: "1/15/2019"
5 output:
6   html_document:
7     number_sections: true
8     fig_caption: true
9 ---
10
11 # Section 1
12
```



Text and headers

- ▶ Text can be plain text or decorated as *italic* or **bold**
- ▶ Headers use #s

Header 1

Header 2

Header 3



Markdown Quick Reference

In RStudio: Help ➔ Markdown Quick Reference

Markdown Quick Reference

R Markdown is an easy-to-write plain text format for creating dynamic documents and reports. See [Using R Markdown](#) to learn more.

Emphasis

```
*italic*   **bold**  
_italic_   __bold__
```

Headers

```
# Header 1  
## Header 2  
### Header 3
```

Lists

Unordered List

```
* Item 1  
* Item 2  
  + Item 2a  
  + Item 2b
```



Numbered sections

```
1 ---
2 title: "Starting with Rmd"
3 author: "Danny Kaplan et al."
4 date: "1/15/2019"
5 output:
6   html_document:
7     number_sections: true
8 ---
9
10 # Section 1
11
12 ## Section 1.1
13
14 ## Section 1.2
15
16 ### Section 1.2.1
17
18 ### Section 1.2.2
19
```

Files Plots Packages Help Viewer

Publish

Starting with Rmd

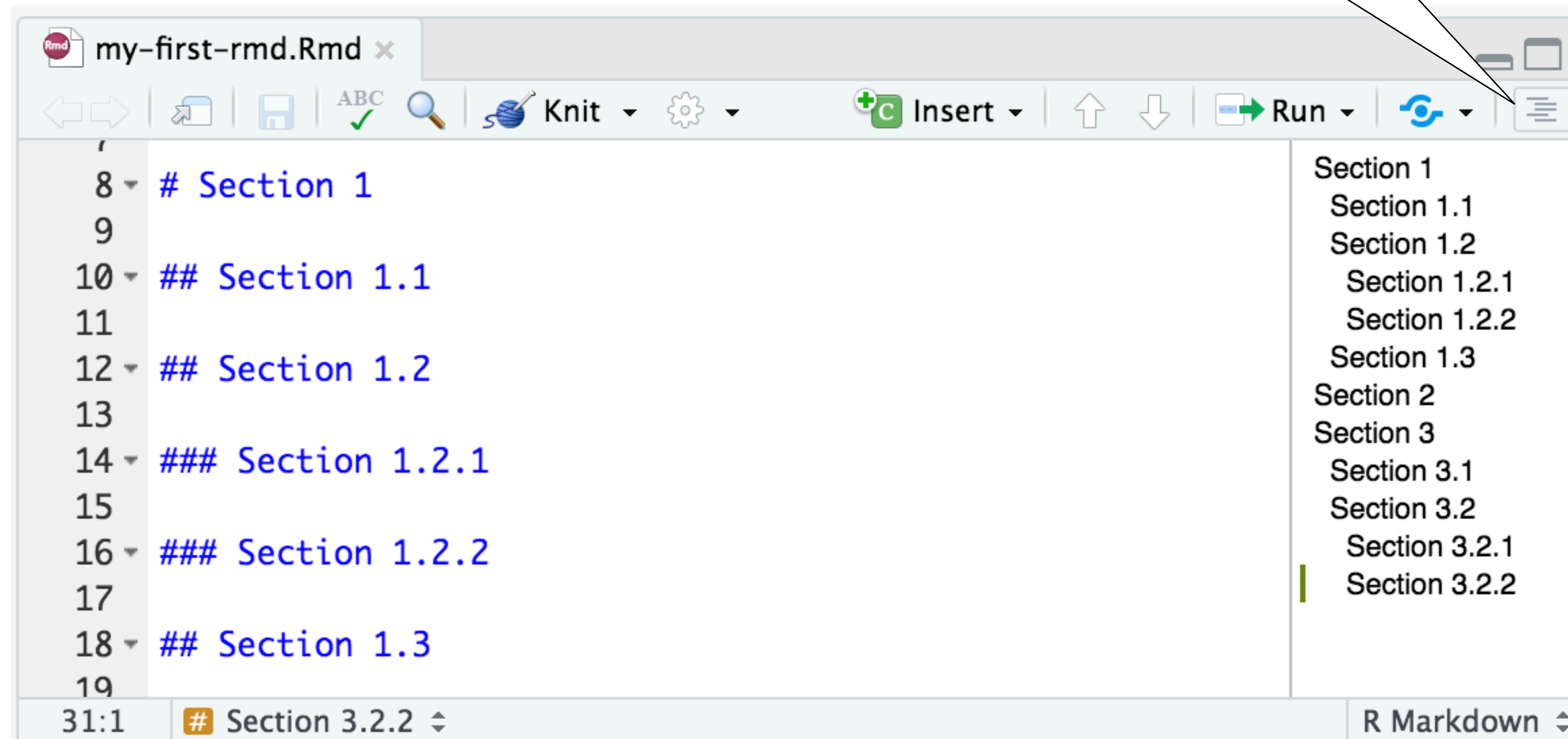
Danny Kaplan et al.
1/15/2019

- 1 Section 1
 - 1.1 Section 1.1
 - 1.2 Section 1.2
 - 1.2.1 Section 1.2.1
 - 1.2.2 Section 1.2.2



Tips

Show / hide
document
outline



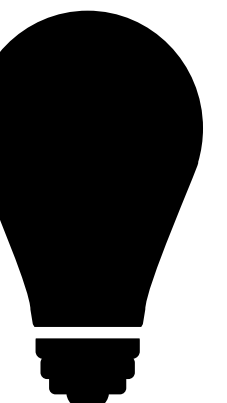
The screenshot shows an R Markdown editor window titled "my-first-rmd.Rmd". The editor displays a document with the following structure:

```
8 # Section 1
9
10 ## Section 1.1
11
12 ## Section 1.2
13
14 ### Section 1.2.1
15
16 ### Section 1.2.2
17
18 ## Section 1.3
19
```

The right-hand side of the editor shows a document outline with the following structure:

- Section 1
 - Section 1.1
 - Section 1.2
 - Section 1.2.1
 - Section 1.2.2
 - Section 1.3
- Section 2
- Section 3
 - Section 3.1
 - Section 3.2
 - Section 3.2.1
 - Section 3.2.2

The status bar at the bottom indicates the current position is "31:1" and the document is titled "# Section 3.2.2". The editor is in "R Markdown" mode.



Links

- ▶ *A link can be a plain http address or can underlie a phrase:*
 - *<http://rmarkdown.rstudio.com/>*
 - *[R Markdown website](<http://rmarkdown.rstudio.com/>)*
- ▶ *Long URLs with, e.g. query parameters, work just as well.*



Images

▶ *Including an image is very similar to hyperlinking*

▶ *Images can be on the web:*

! [RStudio logo] (<https://www.rstudio.com/wp-content/uploads/2014/04/rmarkdown.png>)

▶ *Or they can be locally stored, e.g. in a directory "images"*

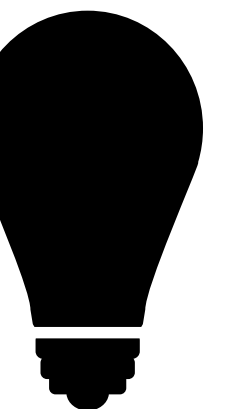
! [RStudio logo] (images/rmarkdown.png)



Tips

- ▶ To improve the accessibility of your document, always add *alt text* to your images.
- ▶ To print the *alt text* underneath the image as a caption,
 - use *fig_caption: true* in the YAML,
 - make sure there is a line break before the figure call.

```
my-first-rmd.Rmd x
← → | 📄 | 💾 | ABC | 🔍 | 🌐 Knit | ⚙️
1 ---
2 title: "Starting with Rmd"
3 author: "Danny Kaplan et al."
4 date: "1/15/2019"
5 output:
6   html_document:
7     number_sections: true
8     fig_caption: true
9 ---
```



Reference style links and images

▶ *Links*

- A *[linked phrase][id]*
- At the bottom of the document: *[id]: http://example.com/ "Title"*

▶ *Images*

- *![alt text][id]*
- At the bottom of the document: *[id]: figures/img.png "Title"*

▶ ***Useful if you'll be linking to the same target/image multiple times throughout the document***



Math text

▶ *If you already know some LaTeX, you're good to go*

▶ *Equations can be inline:*

- `\bar{x} \sim N(\mu, \frac{\sigma}{\sqrt{n}})`

• Equations can be inline: $\bar{x} \sim N\left(\mu, \frac{\sigma}{\sqrt{n}}\right)$

▶ *And equations can be centered in a new line:*

`$$\bar{x} \sim N(\mu, \frac{\sigma}{\sqrt{n}})$$`

• And equations can be centered in a new line:

$$\bar{x} \sim N\left(\mu, \frac{\sigma}{\sqrt{n}}\right)$$



Tables

- ▶ *Tables are often a bit of a pain...*
- ▶ *Dashes separate the header row from content cells, and pipes separate the columns*
- ▶ *Colons can be used to align columns*

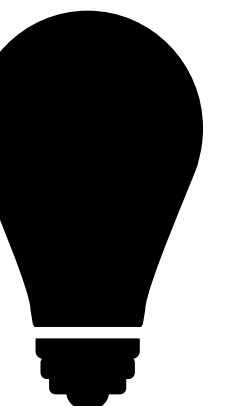
```
| Column A | Column B | Column C |  
|-----|:-----:|-----:|  
| left | center | right |  
| aligned | aligned | aligned |  
| text | text | text |
```



Column A	Column B	Column C
left	center	right
aligned	aligned	aligned
text	text	text

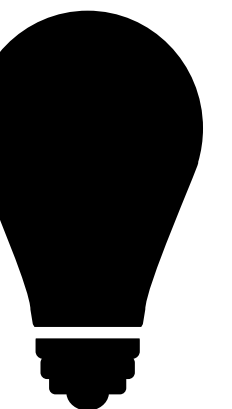
Tips

- ▶ *The outer pipes (|) on a Markdown table are optional.*
- ▶ *You don't need to make the raw Markdown line up prettily.*
- ▶ *You can use inline Markdown within tables.*
- ▶ *For complicated tables, use R packages e.g. `kable` & `kableExtra`*



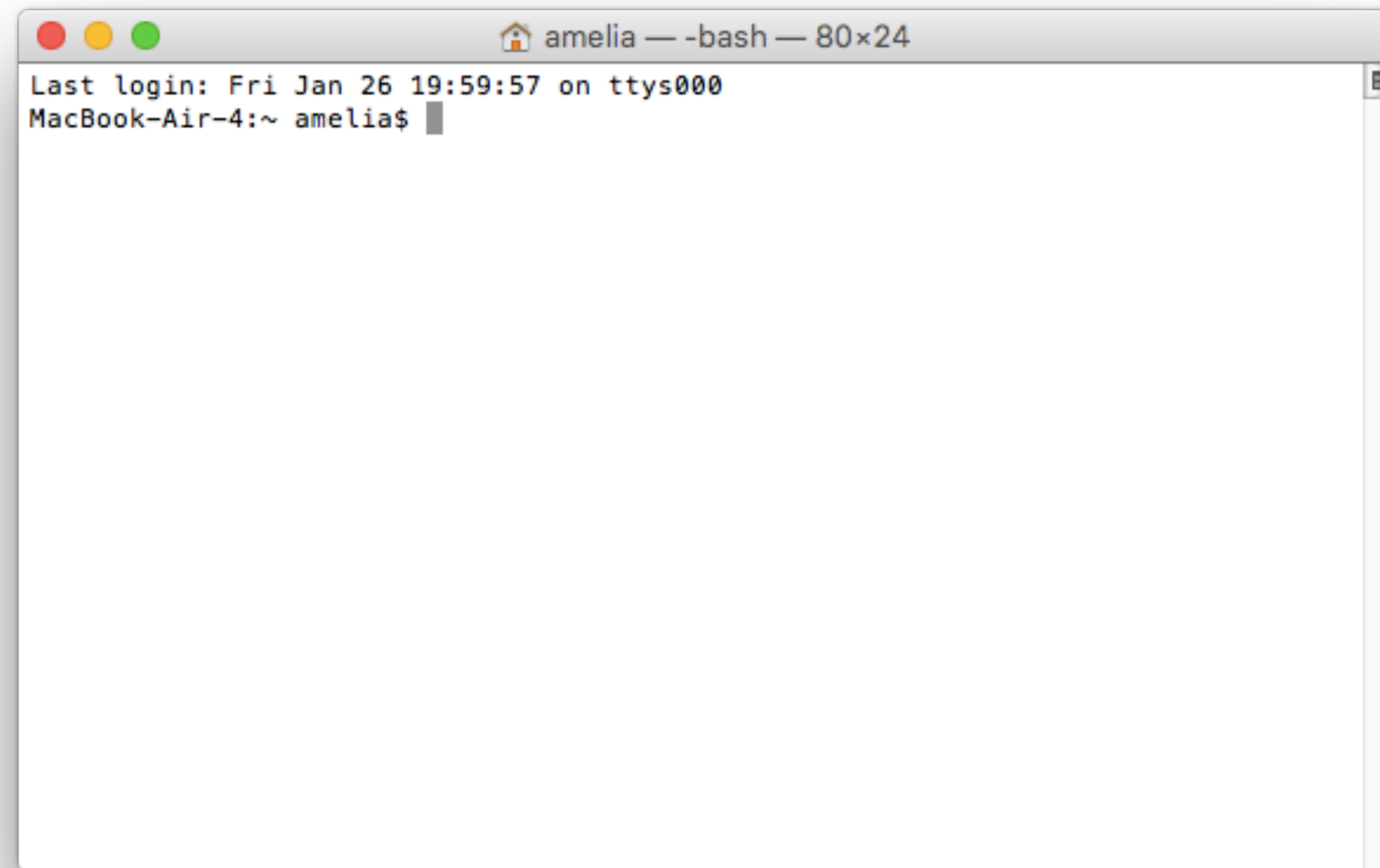
Tips

- ▶ *Keep your text to max ~80 characters across, especially if you use a version control system (like git)*
- ▶ *Starting a list? Leave an empty line before the first item on your list*
- ▶ *Need to test out bits of markdown code without knitting the entire document, use another document with bits and pieces of code to test out*



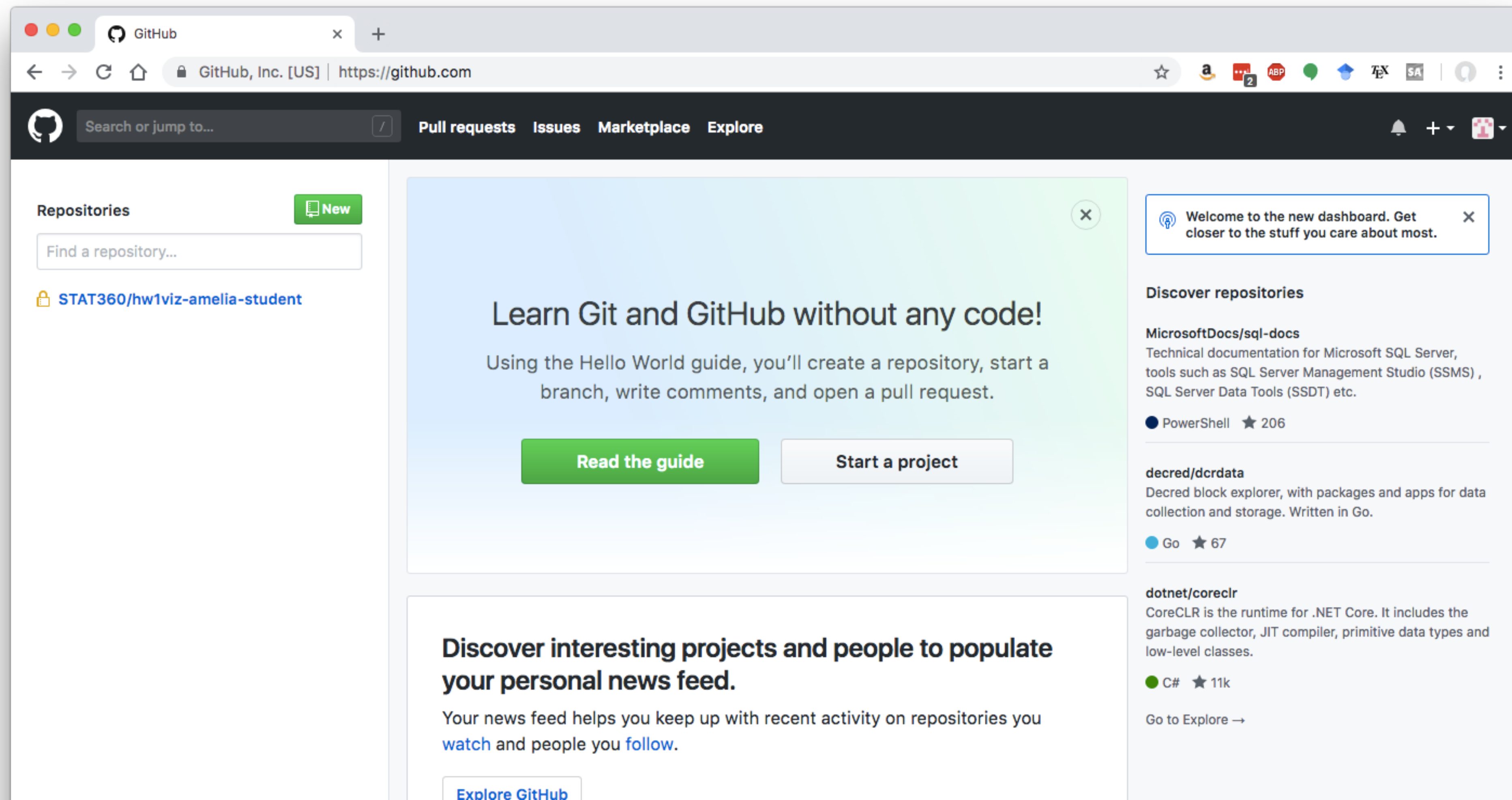
git and Github

git: a version control system (almost like a programming language)



```
amelia — -bash — 80x24
Last login: Fri Jan 26 19:59:57 on ttys000
MacBook-Air-4:~ amelia$
```

GitHub: a site to host code (kind of like Dropbox, but better)



The image shows a screenshot of the GitHub website dashboard. The browser's address bar displays "GitHub, Inc. [US] | https://github.com". The navigation bar includes a search bar, "Pull requests", "Issues", "Marketplace", and "Explore". The main content area features a central promotional banner for learning Git and GitHub without code, with buttons for "Read the guide" and "Start a project". To the left, there is a "Repositories" section with a search bar and a "New" button, listing a repository "STAT360/hw1viz-amelia-student". To the right, a "Discover repositories" section lists "MicrosoftDocs/sql-docs", "PowerShell" (206 stars), "decred/dcrdata" (67 stars), and "dotnet/coreclr" (11k stars). A "Go to Explore" link is at the bottom right.

GitHub

GitHub, Inc. [US] | https://github.com

Search or jump to... Pull requests Issues Marketplace Explore

Repositories [New](#)

Find a repository...

[STAT360/hw1viz-amelia-student](#)

Learn Git and GitHub without any code!

Using the Hello World guide, you'll create a repository, start a branch, write comments, and open a pull request.

[Read the guide](#) [Start a project](#)

Discover interesting projects and people to populate your personal news feed.

Your news feed helps you keep up with recent activity on repositories you [watch](#) and people you [follow](#).

[Explore GitHub](#)

Welcome to the new dashboard. Get closer to the stuff you care about most.

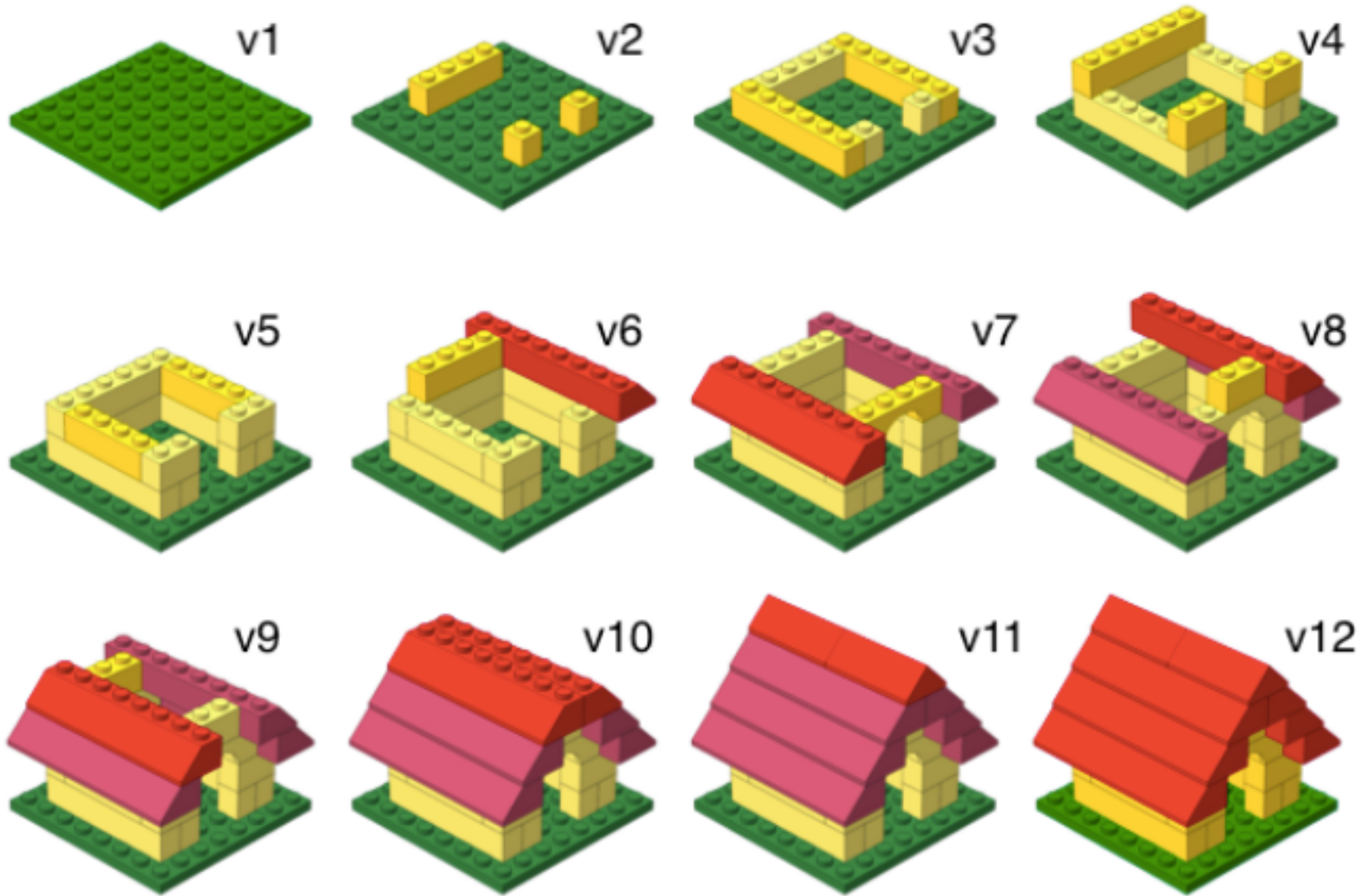
Discover repositories

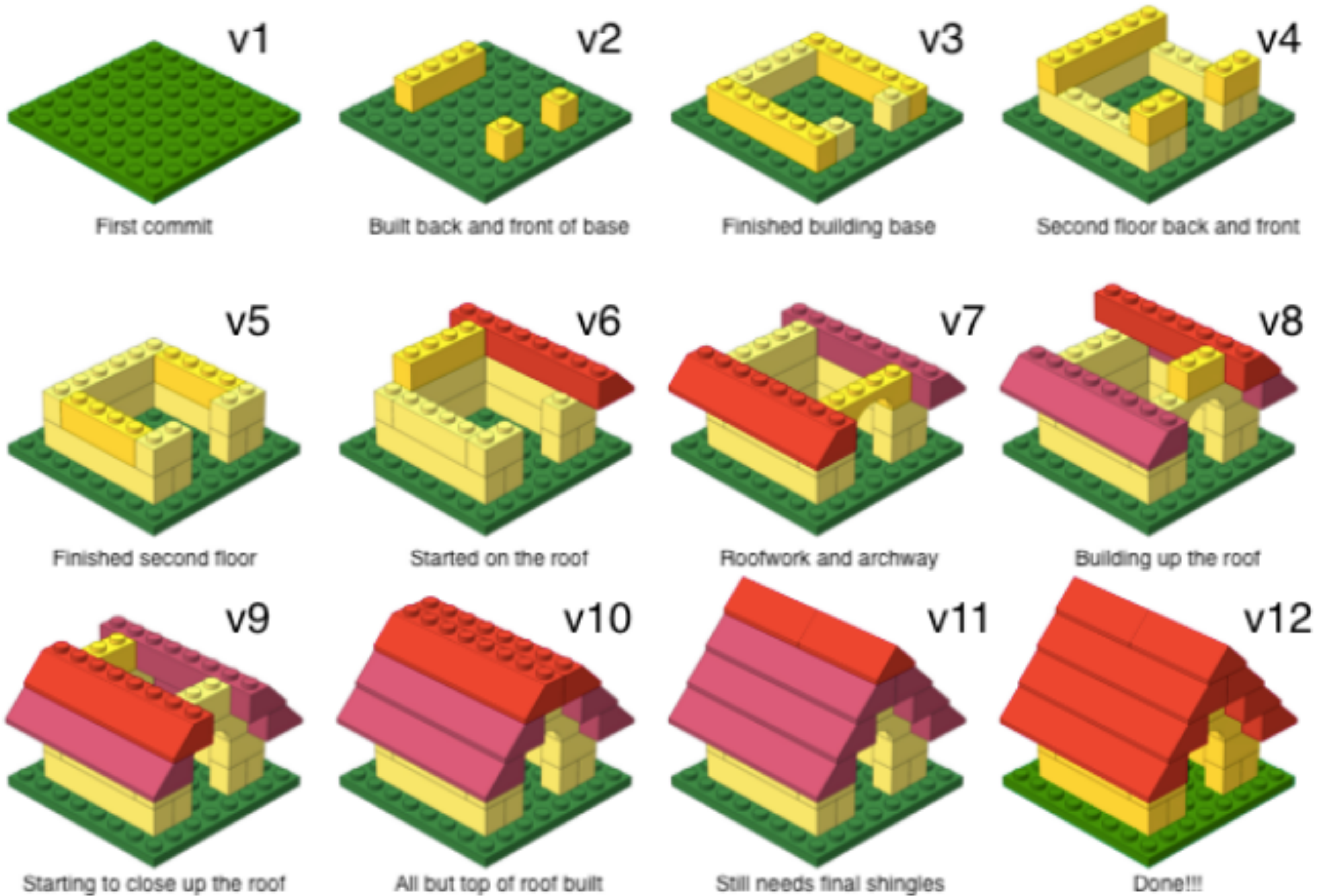
MicrosoftDocs/sql-docs
Technical documentation for Microsoft SQL Server, tools such as SQL Server Management Studio (SSMS), SQL Server Data Tools (SSDT) etc.
● PowerShell ★ 206

decred/dcrdata
Decred block explorer, with packages and apps for data collection and storage. Written in Go.
● Go ★ 67

dotnet/coreclr
CoreCLR is the runtime for .NET Core. It includes the garbage collector, JIT compiler, primitive data types and low-level classes.
● C# ★ 11k

[Go to Explore →](#)





"FINAL".doc



FINAL.doc!



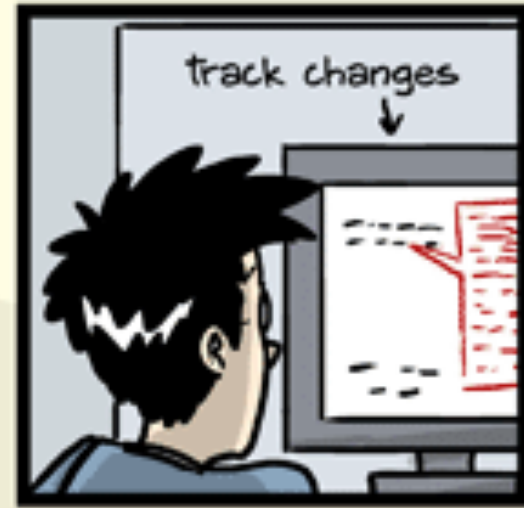
FINAL_rev.2.doc



FINAL_rev.6.COMMENTS.doc



FINAL_rev.8.comments5.
CORRECTIONS.doc



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

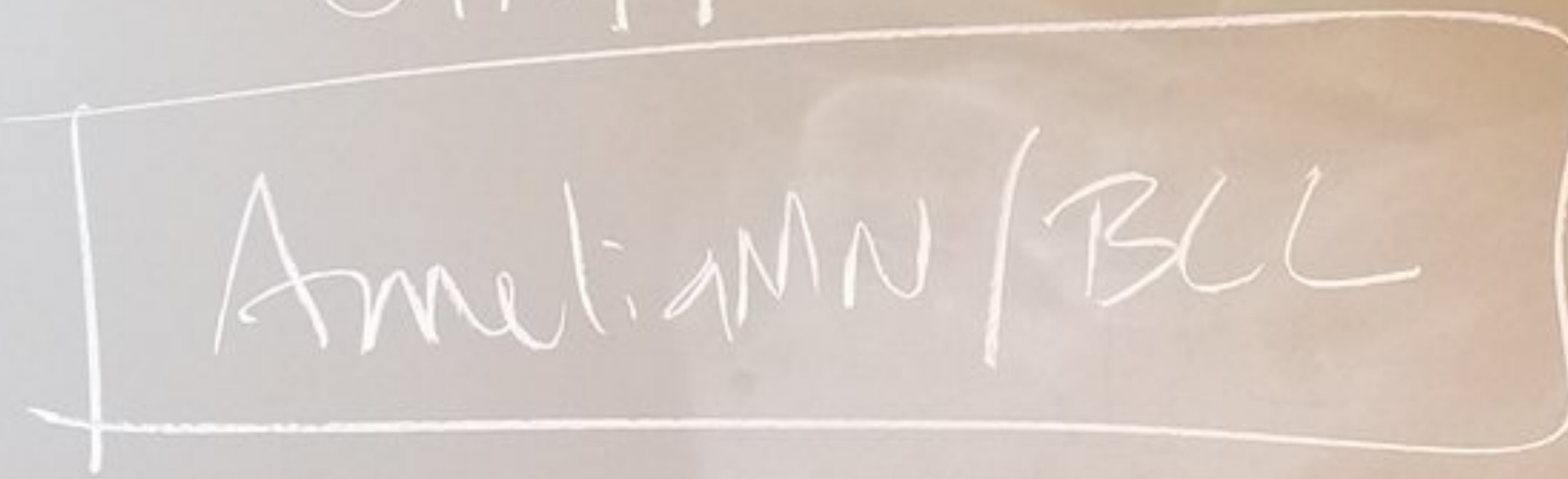


FINAL_rev.22.comments49.
corrections.10.#@\$%WHYDID
ICOMETOGRADSCHOOL?????.doc

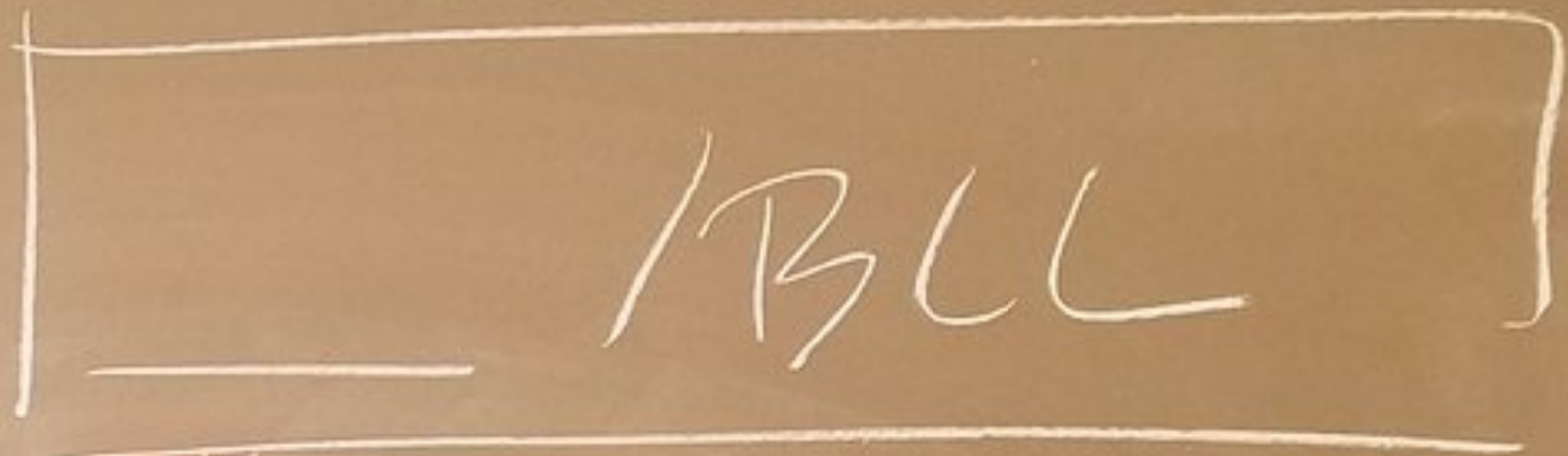


JORGE CHAM © 2012

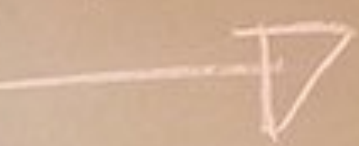
GitHub



GitHub



Fork



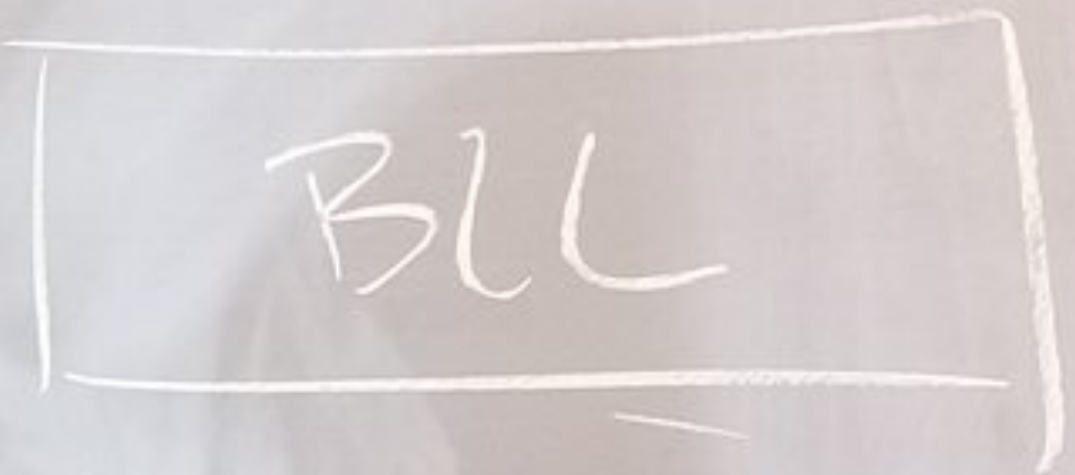
Pull request

Fetch

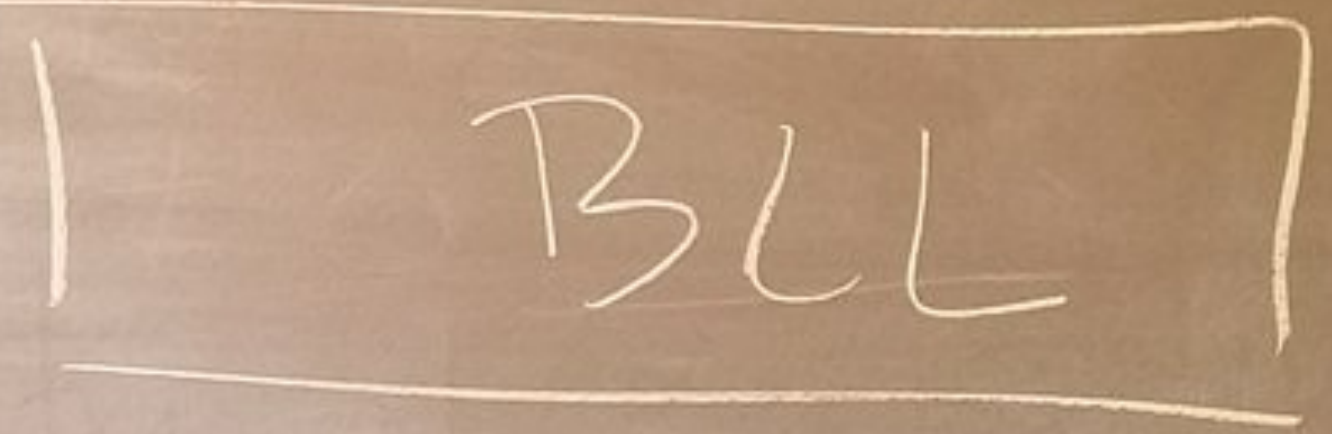
Push

Pull

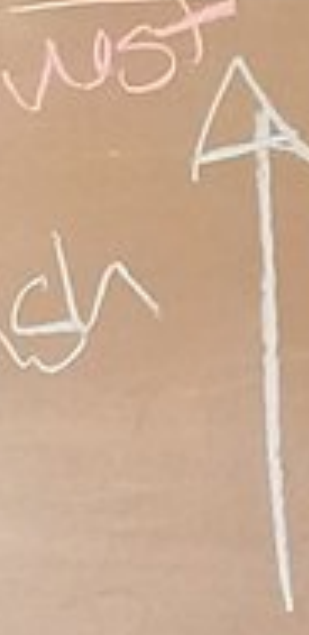
clone




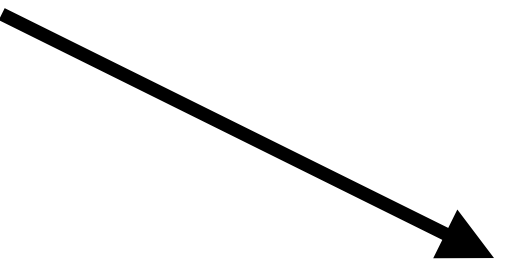
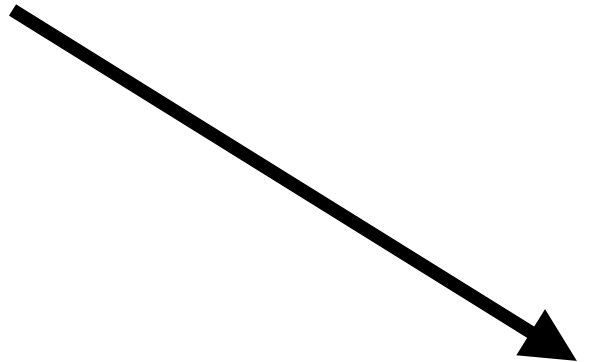
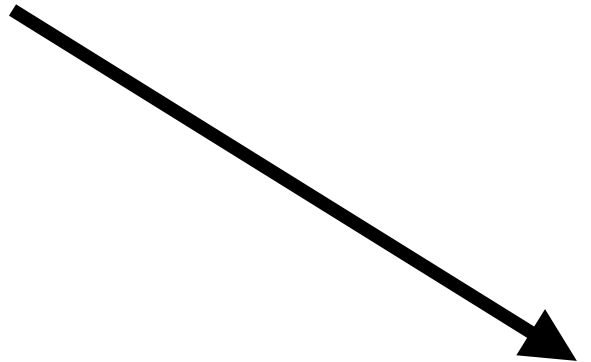
on my computer



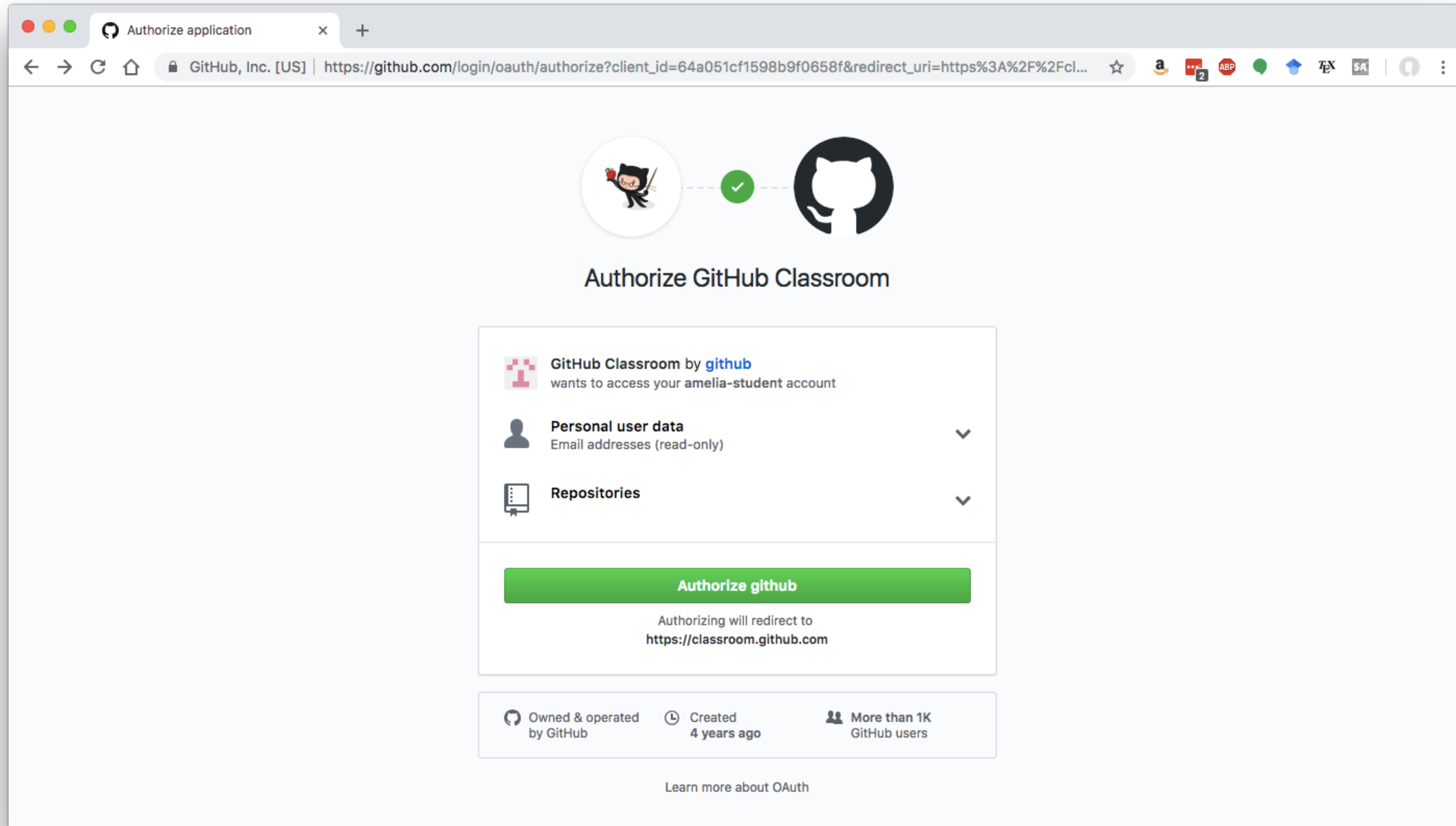
on your computer



Steps:

1. *Join Github classroom for STAT360*  *This may require you to verify your email (check your spam filter)*
2. *Make a copy of assignment (fork)* 
3. *Make a new project in RStudio Cloud "from git repo"*  *This should be done automatically when you complete step 1*
4. *Introduce yourself to git*  *You will have to enter your Github credentials*
5. *Make changes to RMarkdown*
6. *Commit + push changes*
7. *Check online to make sure it worked*

1. Join Github classroom



The screenshot shows a web browser window with the following details:

- Browser Tab:** Authorize application
- Address Bar:** GitHub, Inc. [US] | https://github.com/login/oauth/authorize?client_id=64a051cf1598b9f0658f&redirect_uri=https%3A%2F%2Fcl...
- Visuals:** Two GitHub Octocat icons connected by a dashed line with a green checkmark in the middle.
- Section Header:** Authorize GitHub Classroom
- Application Card:**
 - Icon:** GitHub Classroom logo (a person with a red plus sign).
 - Title:** GitHub Classroom by [github](#)
 - Description:** wants to access your amelia-student account
 - Personal user data:** Email addresses (read-only)
 - Repositories:** (no specific details listed)
- Authorization Button:** A large green button labeled "Authorize github".
- Redirect Information:** Authorizing will redirect to <https://classroom.github.com>
- Footer Information:**
 - Owned & operated by GitHub
 - Created 4 years ago
 - More than 1K GitHub users
- Link:** [Learn more about OAuth](#)


GitHub Classroom

GitHub Classroom

GitHub Education

STAT360: Advanced Statistical Software

@STAT360

 Accept the **Hw1 Viz** assignment

Accepting this assignment will give you access to the **hw1viz-amelia-student** repository in the [@STAT360](#) organization on GitHub.

[Accept this assignment](#)

2. Copy assignment— should be made automatically

The screenshot shows a web browser window displaying a GitHub repository page. The browser's address bar shows the URL `https://github.com/STAT360/hw1viz-amelia-student`. The repository name `STAT360 / hw1viz-amelia-student` is highlighted with a red rectangular box. The repository is private and has 1 watch, 0 stars, and 0 forks. The page indicates it was created by GitHub Classroom and has 1 commit, 1 branch, 0 releases, and 1 contributor. A file named `hw1submission.Rmd` is listed with the commit message `assignment` and a date of 5 days ago. There is a button to `Add a README`. The footer of the page shows the copyright information for GitHub, Inc. in 2019 and various links like Terms, Privacy, Security, Status, Help, Contact GitHub, Pricing, API, Training, Blog, and About.

Copy this URL

The screenshot shows a web browser window displaying a GitHub repository page. The browser's address bar shows the URL `https://github.com/STAT360/hw1viz-amelia-student`. The repository name is `STAT360 / hw1viz-amelia-student`, marked as private. The page shows 1 commit, 1 branch, 0 releases, and 1 contributor. A dropdown menu for 'Clone or download' is open, showing the 'Clone with HTTPS' option selected. The URL `https://github.com/STAT360/hw1viz-amelia` is highlighted with a red box. Other options in the dropdown include 'Use SSH', 'Open in Desktop', and 'Download ZIP'. The footer of the page includes copyright information for 2019 GitHub, Inc. and various links like Terms, Privacy, Security, Status, Help, Contact GitHub, Pricing, API, Training, Blog, and About.

3. Make a new RStudio Cloud Project "from Git Repo"

The screenshot displays the RStudio Cloud interface. At the top, the browser address bar shows the URL `https://rstudio.cloud/spaces/9069/projects`. The navigation bar includes 'STAT 360', 'Projects' (selected), 'Members', and 'Info'. The user profile 'Amelia Student' is visible in the top right. The main content area is titled 'All Projects' and lists three projects: 'Hw1_visualization' (created Feb 10, 2019), 'Hw1_visualization' (created Feb 5, 2019), and 'Untitled Project' (created Feb 12, 2019). A 'New Project' dropdown menu is open, with the option 'New Project from Git Repo' highlighted by a red rectangle. The dropdown also includes 'New Project'. To the right of the dropdown is an 'Options' panel with a search bar, 'List Projects' (radio buttons for 'All', 'Shared with everyone', 'Yours'), and 'Sort Projects' (radio buttons for 'By name', 'By date created').

RStudio Cloud

https://rstudio.cloud/spaces/9069/projects

STAT 360 Projects Members Info

Amelia Student

All Projects

Hw1_visualization

AS Amelia Student

Created Feb 10, 2019 4:08 PM Derived from: Hw1_...

CONTINUE Hw1_visualization

AM Amelia McNamara

Created Feb 5, 2019 11:43 AM [View 1 derived project ...](#)

New Project from Git Repo

URL of your Git repository

Packages

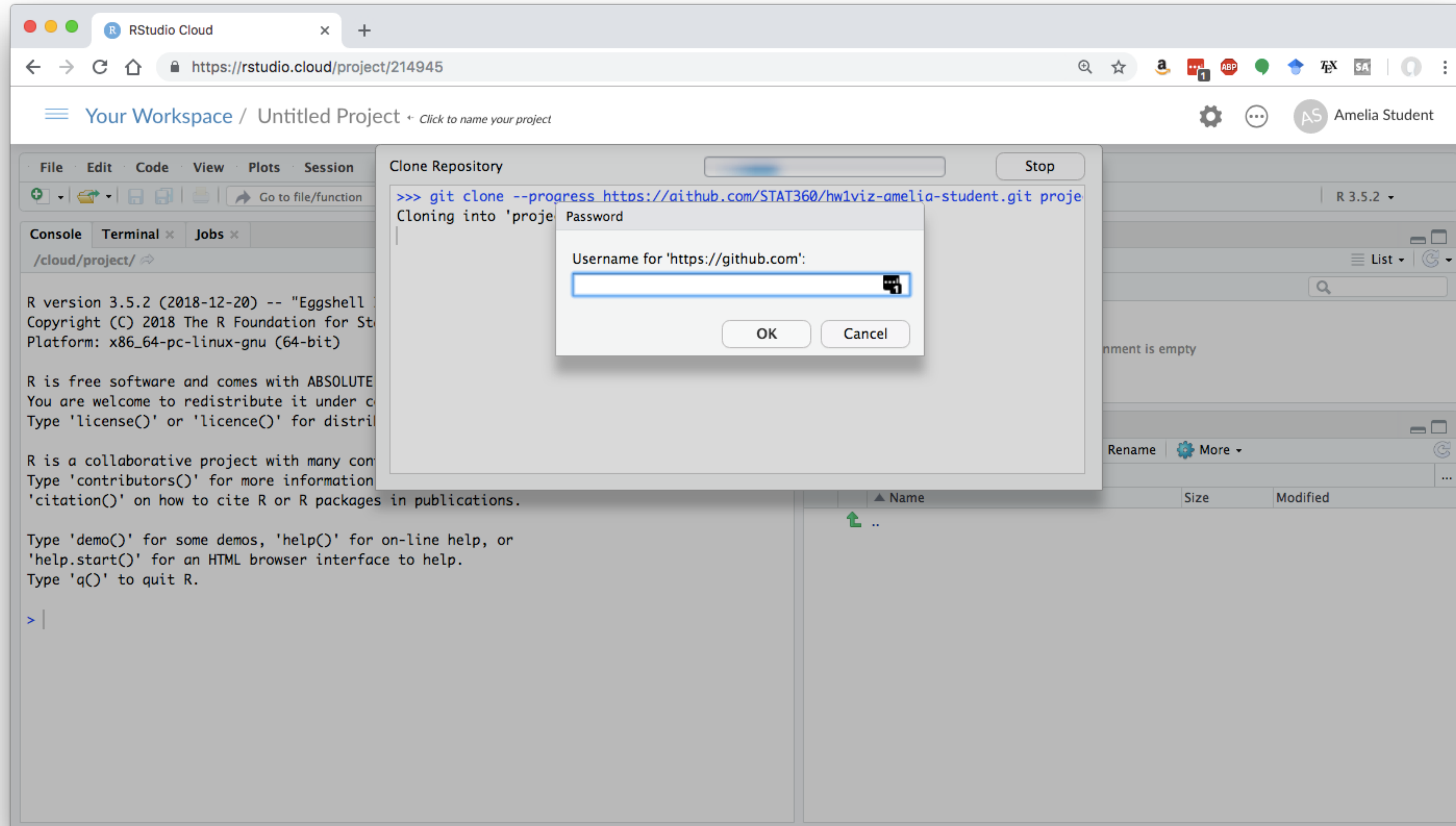
Add packages from the base project

OK

Options

Search Projects

Probably— enter Github credentials



4. Introduce yourself to git

```
git config --global user.name 'Jane Doe'  
git config --global user.email 'jane@example.com'  
git config --global credential.helper 'cache --timeout 3600'  
git config --global --list
```

RStudio Cloud interface showing a project named "STAT 360 / Hw1_visualization". The main editor displays R Markdown code for a visualization. The console window is highlighted with a red box, showing the terminal prompt.

```
1 ---
2 title: "Visualization"
3 output: html_document
4 ---
5
6 <!-- This file by Amelia McNamara is licensed under a Creative Commons Attribution
7 4.0 International License, adapted from the original work at
8 https://github.com/rstudio/master-the-tidyverse by RStudio. -->|
9
10 ## Setup
11
12 The first chunk in an R Notebook is usually titled "setup," and by convention
13 includes the R packages you want to load. Remember, in order to use an R package you
14 (Top Level) ↕
```

6:207

Terminal 1 - rstudio-user@4ada2d6252b6: /cloud/project
rstudio-user@4ada2d6252b6: /cloud/project\$

Environment: Global Environment (empty)

Files:

Name	Size	Modified
..		
.Rhistory	0 B	Feb 10, 2019, 4:08 PM
01-Visualize.html	1.7 MB	Feb 7, 2019, 4:33 PM
01-Visualize.Rmd	3.9 KB	Feb 7, 2019, 4:33 PM
project.Rproj	205 B	Feb 10, 2019, 4:08 PM

git config --global user.name 'Jane Doe'

The screenshot shows the RStudio Cloud interface. The top navigation bar includes the text "STAT 360 / Hw1_visualization" and the user name "Amelia Student". The main editor area displays an R Markdown file named "01-Visualize.Rmd" with the following content:

```
1 ---
2 title: "Visualization"
3 output: html_document
4 ---
5
6 <!-- This file by Amelia McNamara is licensed under a Creative Commons Attribution
7 4.0 International License, adapted from the original work at
8 https://github.com/rstudio/master-the-tidyverse by RStudio. -->
9
10 ## Setup
11
12 The first chunk in an R Notebook is usually titled "setup," and by convention
13 includes the R packages you want to load. Remember, in order to use an R package you
```

The console window at the bottom shows the following terminal output:

```
rstudio-user@4ada2d6252b6: /cloud/project
rstudio-user@4ada2d6252b6:/cloud/project$ git config --global user.name 'Amelia McNamara'
rstudio-user@4ada2d6252b6:/cloud/project$
```

The right-hand side of the interface shows the "Environment" pane (empty), the "Files" pane (listing files like .Rhistory, 01-Visualize.html, 01-Visualize.Rmd, and project.Rproj), and the "Plots" pane.

`git config --global user.email 'jane@example.com'`

The screenshot shows the RStudio Cloud interface. The top navigation bar includes the RStudio logo, the project name "STAT 360 / Hw1_visualization", and the user name "Amelia Student". The main editor area displays an R Notebook with the following content:

```
1 ---
2 title: "Visualization"
3 output: html_document
4 ---
5
6 <!-- This file by Amelia McNamara is licensed under a Creative Commons Attribution
7 4.0 International License, adapted from the original work at
8 https://github.com/rstudio/master-the-tidyverse by RStudio. -->
9
10 ## Setup
11
12 The first chunk in an R Notebook is usually titled "setup," and by convention
13 includes the R packages you want to load. Remember, in order to use an R package you
14 (Top Level)
```

The terminal window at the bottom shows the following commands and output:

```
rstudio-user@4ada2d6252b6: /cloud/project
rstudio-user@4ada2d6252b6:/cloud/project$ git config --global user.name 'Amelia McNamara'
rstudio-user@4ada2d6252b6:/cloud/project$ git config --global user.email 'amelia.mcnamara@stthomas.edu'
rstudio-user@4ada2d6252b6:/cloud/project$
```

The right-hand side of the interface shows the Environment pane (empty), the Files pane (listing project files), and the Plots, Packages, and Help panes.

Name	Size	Modified
..		
.Rhistory	0 B	Feb 10, 2019, 4:08 PM
01-Visualize.html	1.7 MB	Feb 7, 2019, 4:33 PM
01-Visualize.Rmd	3.9 KB	Feb 7, 2019, 4:33 PM
project.Rproj	205 B	Feb 10, 2019, 4:08 PM

5. Make a change

The screenshot displays the RStudio Cloud interface. The main editor window shows a file named `hw1submission.Rmd` with the following content:

```
1 ---
2 title: 'Homework 1: Data visualization'
3 author: "Student McNamara"
4 date: "2/7/2019"
5 output: github_document
6 ---
7
8 ```{r setup, include=FALSE}
9 knitr::opts_chunk$set(echo = TRUE)
10 library(tidyverse)
11 library(fivethirtyeight)
12 ```
13
```

The console window at the bottom shows the R prompt and the following text:

```
/cloud/project/
type 'license()' or 'licence()' for distribution details.

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

> |
```

The environment pane on the right shows the following files:

Staged	Status	Path
<input checked="" type="checkbox"/>	A	.gitignore
<input checked="" type="checkbox"/>	M	hw1submission.Rmd
<input checked="" type="checkbox"/>	A	project.Rproj

The file explorer on the right shows the following files:

Name	Size	Modified
..		
.gitignore	40 B	Feb 12, 2019, 12:42 PM
.Rhistory	0 B	Feb 12, 2019, 12:42 PM
hw1submission.Rmd	1.2 KB	Feb 12, 2019, 1:18 PM
project.Rproj	205 B	Feb 12, 2019, 1:18 PM

6. Commit

The screenshot displays the RStudio Cloud interface. The main editor shows an R Markdown file named 'hw1submission.Rmd' with the following content:

```
1 ---  
2 title: 'Homework 1: Data visualization'  
3 author: "Student McNamara"  
4 date: "2/7/2019"  
5 output: github_document  
6 ---  
7  
8 ```{r setup, include=FALSE}  
9 knitr::opts_chunk$set(echo = TRUE)  
10 library(tidyverse)  
11 library(fivethirtyeight)  
12 ```  
13
```

The console at the bottom shows the R prompt with the following text:

```
> |  
/cloud/project/  
type 'license()' or 'licence()' for distribution details.  
  
R is a collaborative project with many contributors.  
Type 'contributors()' for more information and  
'citation()' on how to cite R or R packages in publications.  
  
Type 'demo()' for some demos, 'help()' for on-line help, or  
'help.start()' for an HTML browser interface to help.  
Type 'q()' to quit R.
```

The Git pane on the right side of the interface is highlighted with a red box. It shows the following information:

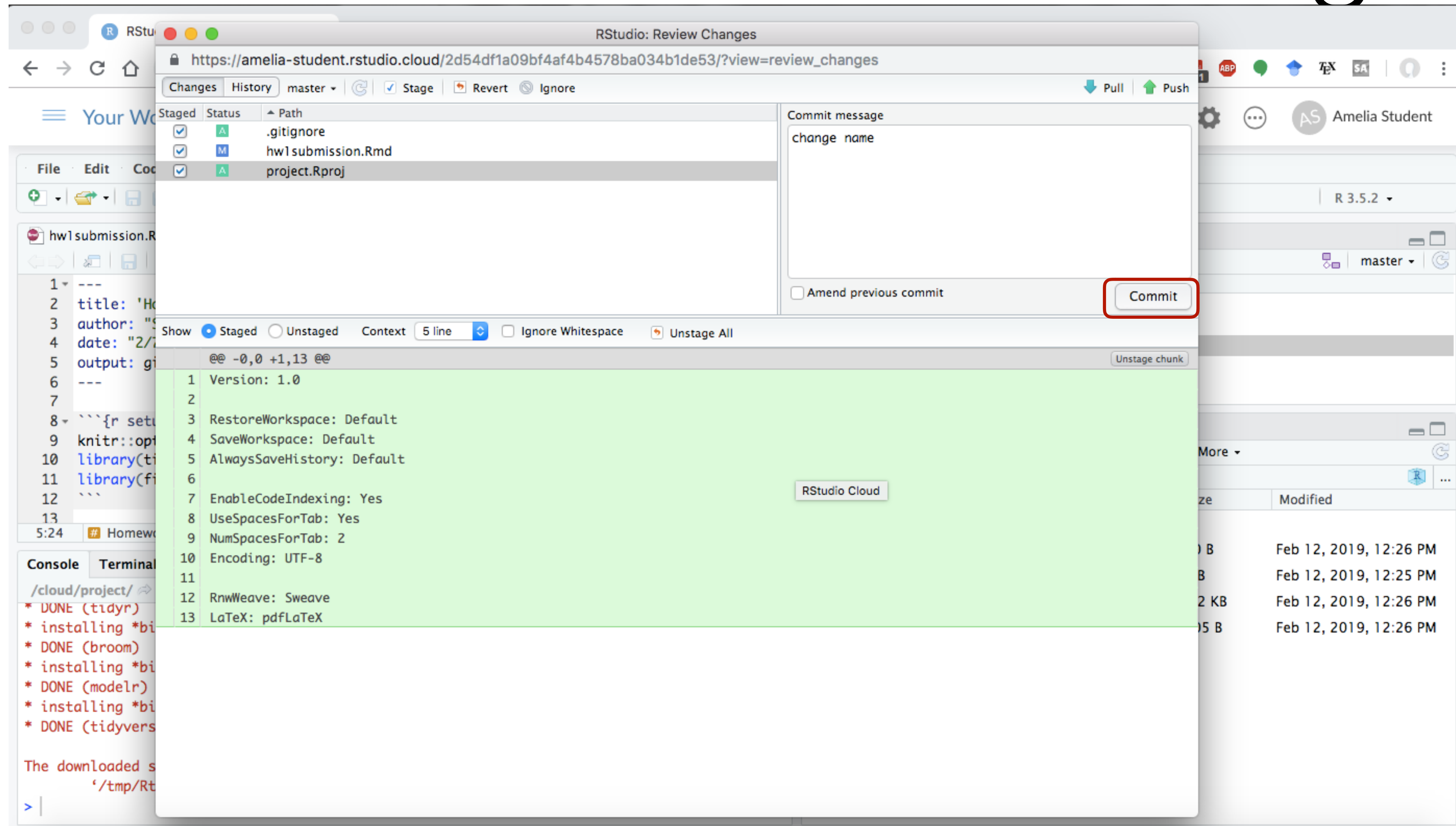
- Environment: History, Connections, Git
- Buttons: Diff, Commit, Pull, Push
- Staged files table:

Staged	Status	Path
<input checked="" type="checkbox"/>	A	.gitignore
<input checked="" type="checkbox"/>	M	hw1submission.Rmd
<input checked="" type="checkbox"/>	A	project.Rproj

Below the Git pane is a file explorer showing the project structure:

Name	Size	Modified
..		
.gitignore	40 B	Feb 12, 2019, 12:42 PM
.Rhistory	0 B	Feb 12, 2019, 12:42 PM
hw1submission.Rmd	1.2 KB	Feb 12, 2019, 1:18 PM
project.Rproj	205 B	Feb 12, 2019, 1:18 PM

Commit— write a message



The screenshot shows the RStudio Review Changes dialog box. The dialog is titled "RStudio: Review Changes" and has a URL in the address bar: `https://amelia-student.rstudio.cloud/2d54df1a09bf4af4b4578ba034b1de53/?view=review_changes`. The dialog is divided into several sections:

- Changes:** A table with columns "Staged", "Status", and "Path". It lists three files: `.gitignore` (Status: A), `hw1submission.Rmd` (Status: M), and `project.Rproj` (Status: A).
- Commit message:** A text area containing the message "change name".
- Amend previous commit:** A checkbox that is currently unchecked.
- Commit:** A button highlighted with a red rectangle, used to confirm the commit.
- Staged Files:** A section below the commit message showing the contents of the staged files. It includes a diff header `@@ -0,0 +1,13 @@` and a list of RStudio settings: `Version: 1.0`, `RestoreWorkspace: Default`, `SaveWorkspace: Default`, `AlwaysSaveHistory: Default`, `EnableCodeIndexing: Yes`, `UseSpacesForTab: Yes`, `NumSpacesForTab: 2`, `Encoding: UTF-8`, `RnwWeave: Sweave`, and `LaTeX: pdfLaTeX`.

The background shows the RStudio interface with a code editor on the left containing R code, a console at the bottom with output from `install.packages()`, and a file browser on the right showing a file list with columns for "Size" and "Modified".

Push

The screenshot displays the RStudio Cloud interface in a browser window. The main window is titled "RStudio: Review Changes" and shows a URL: `https://amelia-student.rstudio.cloud/2d54df1a09bf4af4b4578ba034b1de53/?view=review_changes`. The interface includes a "Changes" tab, a "History" tab, and a "master" branch selector. A "Stage" button is visible, along with "Revert" and "Ignore" options. The "Push" button is highlighted with a red box. The "Commit message" field contains the text "change name". Below the commit message field, there is an "Amend previous commit" checkbox and a "Commit" button. The "Staged" section shows a list of files: `.gitignore`, `hw1submission.Rmd`, and `project.Rproj`. The "Show" section is set to "Staged" and "Context" is set to "5 line". The "Unstage All" button is visible. The "Console" section shows the output of the `git status` command, indicating that the files are staged for commit. The "Terminal" section shows the output of the `install.packages()` command, indicating that the packages are being installed successfully.

Changes History master Stage Revert Ignore

Staged Status Path

- ✓ A .gitignore
- ✓ M hw1submission.Rmd
- ✓ A project.Rproj

Commit message

change name

Amend previous commit Commit

Show Staged Unstaged Context 5 line Ignore Whitespace Unstage All

```
@@ -0,0 +1,13 @@
1 Version: 1.0
2
3 RestoreWorkspace: Default
4 SaveWorkspace: Default
5 AlwaysSaveHistory: Default
6
7 EnableCodeIndexing: Yes
8 UseSpacesForTab: Yes
9 NumSpacesForTab: 2
10 Encoding: UTF-8
11
12 RnwWeave: Sweave
13 LaTeX: pdfLaTeX
```

RStudio Cloud

Console Terminal

```
/cloud/project/
* DONE (tidyr)
* installing *bi
* DONE (broom)
* installing *bi
* DONE (modelr)
* installing *bi
* DONE (tidyvers
```

The downloaded s
'/tmp/Rt

5:24 # Homework

More

Size	Modified
0 B	Feb 12, 2019, 12:26 PM
B	Feb 12, 2019, 12:25 PM
2 KB	Feb 12, 2019, 12:26 PM
5 B	Feb 12, 2019, 12:26 PM

7. Go check online

The screenshot shows a web browser displaying the GitHub repository page for `STAT360/hw1viz-amelia-student`. The browser's address bar shows the URL `https://github.com/STAT360/hw1viz-amelia-student`. The repository page includes a search bar, navigation links for Pull requests, Issues, Marketplace, and Explore, and a header for the repository name with a lock icon indicating it is private. Below the header, there are buttons for Watch (1), Star (0), and Fork (0). A secondary navigation bar contains links for Code, Issues (0), Pull requests (0), Projects (0), Wiki, and Insights. The main content area shows the repository was created by GitHub Classroom and includes statistics: 3 commits, 1 branch, 0 releases, and 1 contributor. A dropdown menu shows the current branch is `master`. Action buttons include 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. A commit history table is displayed, showing the most recent commit by `amelia-student` with the message 'first stab at a bar chart' and a timestamp of '32 minutes ago'. The table lists several files and their commit messages and timestamps. At the bottom of the repository view, there is a prompt to 'Add a README'.

STAT360 / hw1viz-amelia-student Private

Watch 1 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights

hw1viz-amelia-student created by GitHub Classroom

3 commits 1 branch 0 releases 1 contributor

Branch: master New pull request Create new file Upload files Find file Clone or download

amelia-student first stab at a bar chart Latest commit 53417a9 32 minutes ago

File	Commit Message	Time
hw1submission_files/figure-gfm	first stab at a bar chart	32 minutes ago
.gitignore	changed name and date	37 minutes ago
hw1submission.Rmd	first stab at a bar chart	32 minutes ago
hw1submission.md	first stab at a bar chart	32 minutes ago
project.Rproj	changed name and date	37 minutes ago

Help people interested in this repository understand your project by adding a README. Add a README

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Homework (due next Tuesday 2/19, 1:30 pm)

- Finish the instructions in the .Rmd document
- Save, commit, push changes to Github
- I will be looking for a knitted .md document called hw1submission.md with a pretty visualization