



# 4 all

welcoming + inclusive practices for teaching R

---

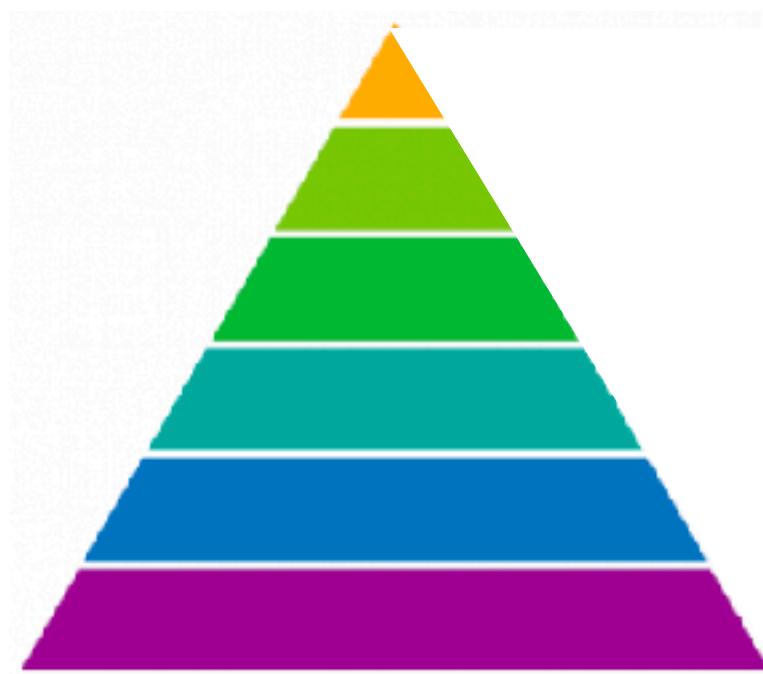
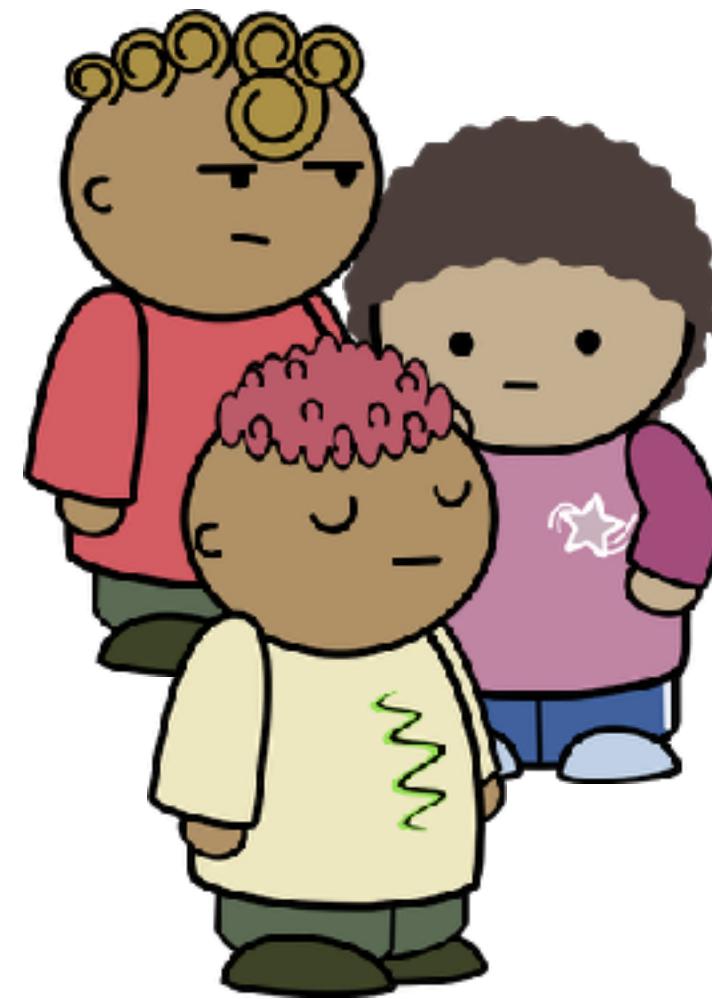
mine çetinkaya-rundel

minebocek 

mine-cetinkaya-rundel 

cetinkaya.mine@gmail.com 

# so, you want to teach R?



✓ learner personas

✓ learning goals

✓ list of topics

✓ syllabus

✓ resources

✓ computing infrastructure



?

...

Think back to when you were first learning R, or the first programming language you learned. What about the instruction made it more challenging for you?



> Go to [slido.com](https://slido.com) and join #**E846**

keep curriculum challenging enough  
to make it worthwhile for the students



get students interested



ensure curriculum is supportive enough to  
minimize number of students who fall  
through the cracks



prepare students  
for the next phase



get to know  
your students



# get to know your students



**Andrew Heiss, PhD**  
@andrewheiss

About to send out my welcome-to-class survey, now with questions about name pronunciation (with audio!) and pronouns

Your answer

What, if anything, concerns you about this class? \*

Your answer

Name pronunciation (optional)  
I really want to know how to say your name! If people tend to struggle with your name, type it out phonetically here. People get my last name wrong all the time—it rhymes with 'nice.'

Your answer

Name pronunciation audio (optional)  
If you want, you can also record yourself pronouncing your name and upload an audio file here. (Use the voice recording app on your phone, QuickTime on macOS, or Voice Recorder on Windows)

[ADD FILE](#)

What are your personal pronouns? \*

Personal pronouns are the pronouns you use to describe yourself, such as he/him, she/her, ze/zir, etc.

She/her/hers  
 He/him/his  
 They/them/theirs  
 Other: \_\_\_\_\_

How do you learn the best? \*

Your answer

What has made your favorite university classes your favorite? \*

Your answer

When you hear the word "economics," what do you think of? \*

Your answer

How familiar are you with microeconomics? \*

I have nightmares about this class

1	2	3	4	5	6	7	8	9	10
oooooooooooo									

MU<sub>x</sub> / MU<sub>y</sub> = P<sub>x</sub> / P<sub>y</sub>

How comfortable are you with Excel? \*

1 2 3 4 5 6 7 8 9 10

1:24 PM · Aug 13, 2019 · Twitter for iPhone

 [twitter.com/andrewheiss/status/1161327738000531458](https://twitter.com/andrewheiss/status/1161327738000531458)

## Getting to know you

Please answer the questions below so that I can get to know you a bit better. Your answers can be brief. Some of your answers will be used to guide what application examples might be of interest to a majority of students in the course, and some of your answers will be used to help guide team formation.

### What is your student ID number?

Your answer 

### What is your name?

Your answer

Preferred name (optional). If you prefer to go by a different name than the one listed above, please let me know what it is.

Your answer

 [forms.gle/La4UfDjNLkyKR45B9](https://forms.gle/La4UfDjNLkyKR45B9)

# get to know your students

Getting to know you

About the course

What do you hope to learn from this course?

Your answer



What, if anything, concerns you about this course?

Your answer

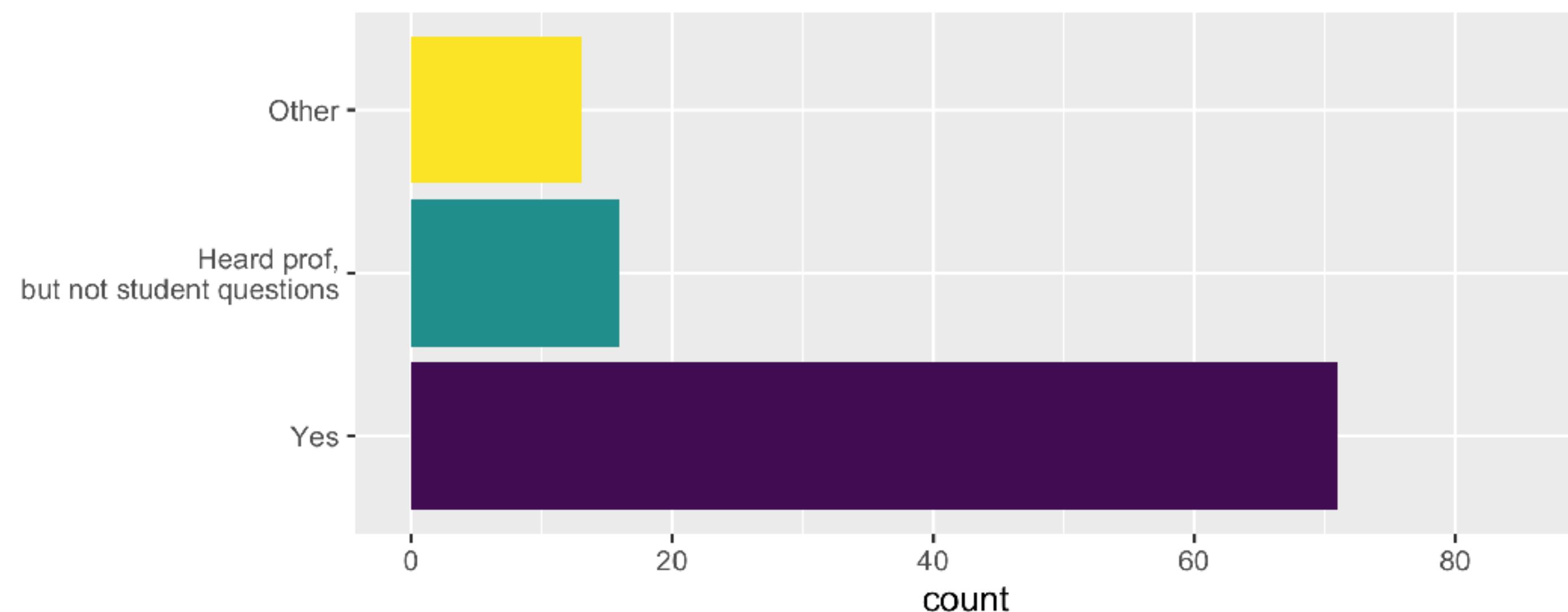
Is there anything you would like me to clarify about the course?

Your answer

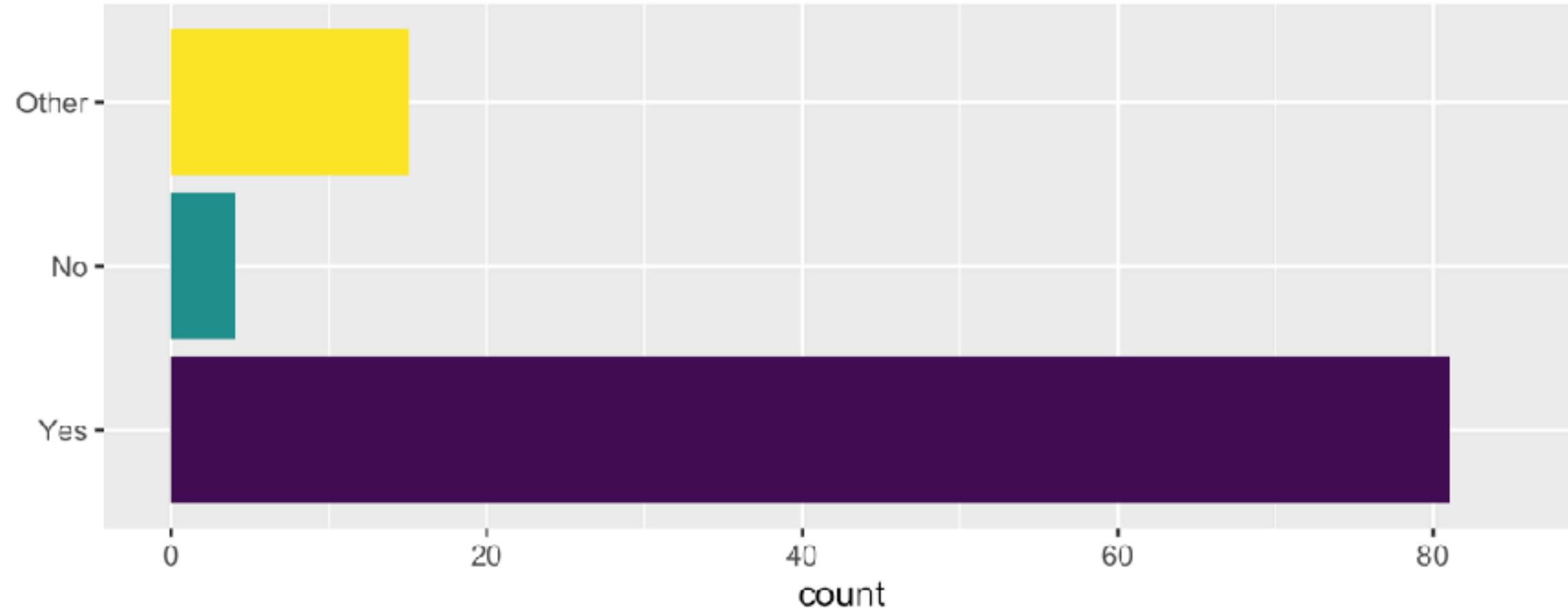


[forms.gle/La4UfDjNLkyKR45B9](https://forms.gle/La4UfDjNLkyKR45B9)

Hear well during the first lecture



Read the slides easily during the first lecture



# student dashboard

Intro Data Science    Individual students    Overall    Source Code

Select a student: Neemias Vemulakonda



**Neemy** Preferred name

Hope to learn...  
Statestic

Anything else you would like me to know about you?  
Not really theres not much else to know

Something cool / unique about yourself  
I play violin, cello and guitar

How do you learn best?  
Be patient and careful.

What, if anything, concerns you about this course?  
The difficulty

**Nee-mee-as** Pronunciation

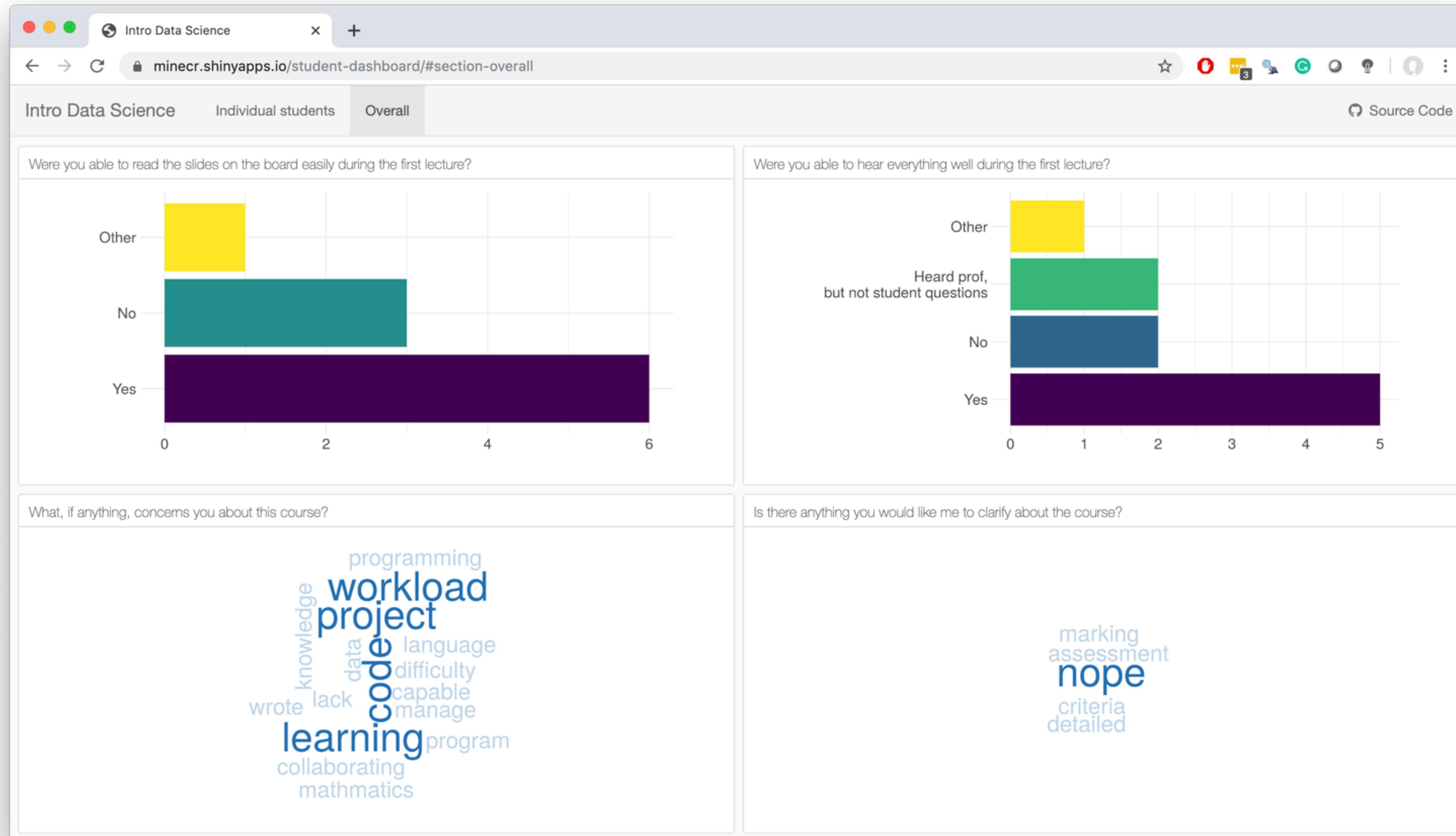
Programming language before?  
No

**They / them** Pronouns

Statistics course before?  
No

The dashboard displays a student profile for Neemias Vemulakonda, showing their preferred name (Neemy), pronunciation (Nee-mee-as), and pronouns (They / them). It includes sections for learning goals, hobbies, study habits, and course concerns. A portrait photo of the student is also present.

# class dashboard



Intro Data Science

minecr.shinyapps.io/student-dashboard/#section-overall

Intro Data Science

minecr.shinyapps.io/student-dashboard/#section-individual-students

Intro Data Science Individual students Overall

Select a student

Neemias Vermulakonda

**Neemy**

Preferred name



Hope to learn...

Statestic

Anything else you would like me to know about you?

Not really theres not much else to know

Something cool / unique about yourself

I play violin, cello and guitar

How do you learn best?

Be patient and careful.

What, if anything, concerns you about this course?

The difficulty

**Nee-mee-as**

Pronunciation

**They / them**

Pronouns

minecr.shinyapps.io/student-dashboard/

rstd.io/student-dashboard-code

This screenshot shows a shiny dashboard for a student named Neemy. The dashboard is divided into three main sections: Preferred name, Pronunciation, and Pronouns. The Preferred name section includes a portrait photo of Neemy, her name, and a dropdown menu showing she is currently selected. The Pronunciation section has a microphone icon and the name 'Nee-mee-as'. The Pronouns section has a checkmark icon and the name 'They / them'. Below these sections are several text input fields for additional information: 'Hope to learn...', 'Anything else you would like me to know about you?', 'Something cool / unique about yourself', 'How do you learn best?', 'What, if anything, concerns you about this course?', and 'The difficulty'. The bottom of the dashboard features a green footer bar with the URL 'minecr.shinyapps.io/student-dashboard/' and a grey footer bar with the URL 'rstd.io/student-dashboard-code'.

?

help them  
get help



# help with ?help

The name of the function, and the library it is in.

mean {base}

R Documentation

Arithmetic Mean

What it does.

Generic function for the (trimmed) arithmetic mean.

Usage

mean(x, ...)

## Default S3 method:

mean(x, trim = 0, na.rm = FALSE, ...)

More details on each named argument. This will tell you what class of thing each argument has to be—an object, a number, a data frame, a logical value, etc.

What the function returns—i.e., the result of whatever operation or calculation it performs. This can be a single number, as here, or a multi-part object such as a list, a data frame, a plot, or a model.

The function's name, and in the parentheses the named arguments it expects, in the order it expects them. If an argument has a default value, it is shown. Arguments without default values (e.g. x) must be provided by you.

Arguments

x An R object. Currently there are methods for numeric/logical vectors and [date](#), [date-time](#) and [time interval](#) objects. Complex vectors are allowed for trim = 0, only.

trim the fraction (0 to 0.5) of observations to be trimmed from each end of x before the mean is computed. Values of trim outside that range are taken as the nearest endpoint.

na.rm a logical value indicating whether NA values should be stripped before the computation proceeds.

... further arguments passed to or from other methods.

The ellipsis allows other arguments to be passed to and from the function.

Value

If trim is zero (the default), the arithmetic mean of the values in x is computed, as a numeric or complex vector of length one. If x is not logical (coerced to numeric), numeric (including integer) or complex, NA\_real\_ is returned, with a warning.

If trim is non-zero, a symmetrically trimmed mean is computed with a fraction of trim observations deleted from each end before the mean is computed.

References

Becker, R. A., Chambers, J. M. and Wilks, A. R. (1988) *The New S Language*. Wadsworth & Brooks/Cole.

See Also

[weighted.mean](#), [mean.POSIXct](#), [colMeans](#) for row and column means.

Other related functions

Examples

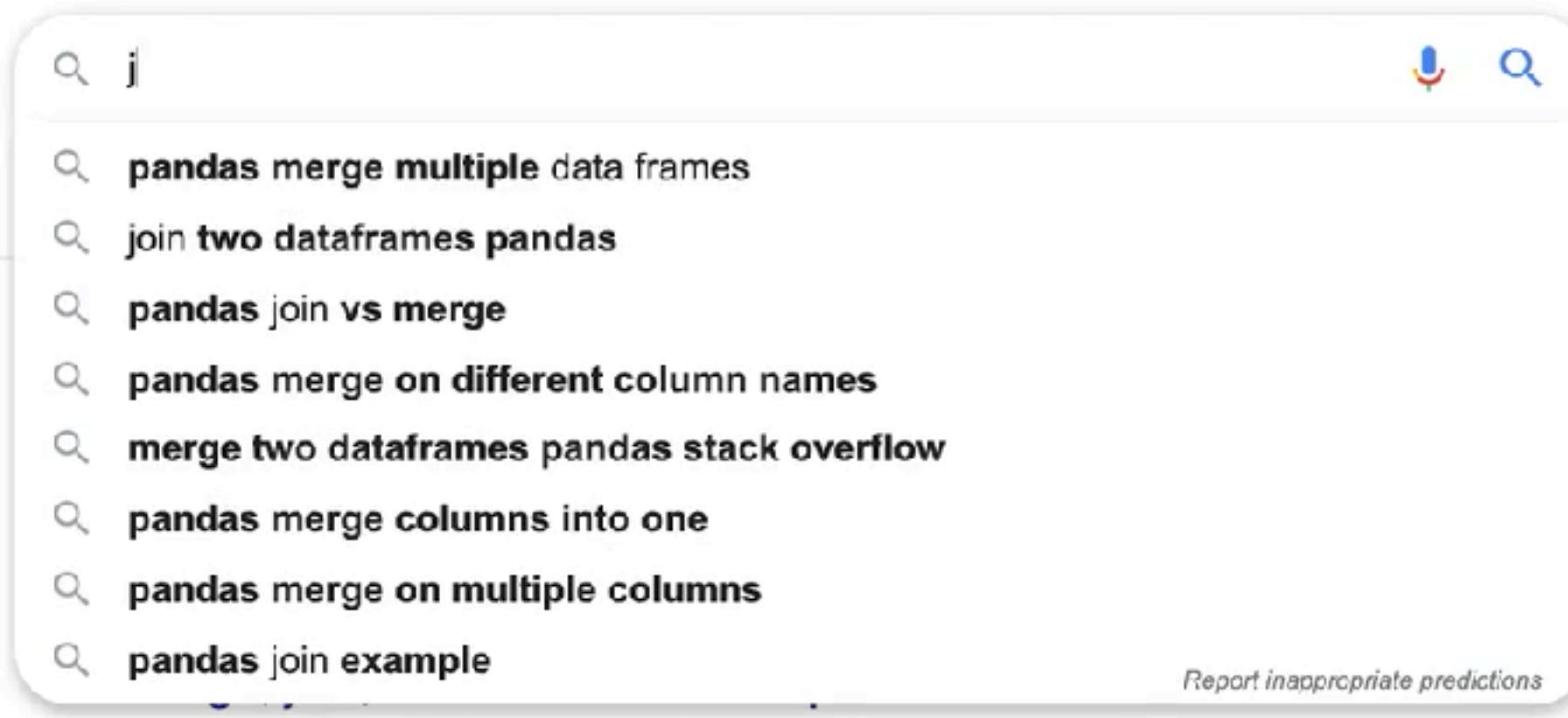
```
x <- c(0:10, 50)
xm <- mean(x)
c(xm, mean(x, trim = 0.10))
```

Self-contained examples that you can run at the console. These may use built-in datasets or other R functions.

[Package *base* version 3.4.3 [Index](#)]

Visit the package's Index page to look for Demos and Vignettes detailing how it works.

# help with

Google  Sign in

- [pandas merge multiple data frames](#)
- [join two dataframes pandas](#)
- [pandas join vs merge](#)
- [pandas merge on different column names](#)
- [merge two dataframes pandas stack overflow](#)
- [pandas merge columns into one](#)
- [pandas merge on multiple columns](#)
- [pandas join example](#)

Report inappropriate predictions

[https://pandas.pydata.org/pandas-docs/stable/user\\_guide/merging.html](https://pandas.pydata.org/pandas-docs/stable/user_guide/merging.html)

Like its sibling function on ndarrays, `numpy.concatenate`, `pandas.concat` takes a list ... When gluing together multiple `DataFrames`, you have a choice of how to ...

[pandas.DataFrame.join — pandas 0.25.1 documentation](#)

<https://pandas.pydata.org/pandas-docs/stable/reference/api/pandas.DataFrame.join.html>

Join columns with other DataFrame either on index or on a key column. Efficiently join multiple ...

`Join DataFrames using their indexes. >>> df.join(other ...)`

[Joining Pandas Dataframes - Data Carpentry](#)

<https://datacarpentry.org/python-socialsci/11-joins/>

Questions. How can I join two Dataframes with a common key? Objectives. Understand why we would want to join Dataframes. Know what is needed for a join to ...

[How to join \(merge\) data frames \(inner, outer, left, right ...\)](#)

<https://stackoverflow.com/questions/4321320/how-to-join-merge-data-frames-in-python>

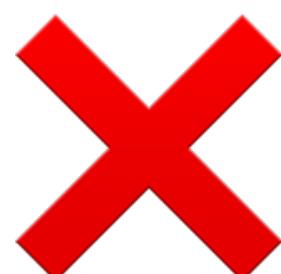
13 answers

Nov 9, 2015 - You can also use the `by.x` and `by.y` parameters if the matching variables have different names in the different data frames. Outer join: `merge(x = df1, y = df2, ...)`

[JOIN two dataframes on common column in python](#) Jan 4, 2017

[Concatenate rows of two dataframes in pandas](#) Jan 14, 2018

[How to merge two dataframes side-by-side?](#) Jun 14, 2018



[rstd.io/r4all-cardiff](http://rstd.io/r4all-cardiff)

# help with

Google  Sign in

All Images Videos News Shopping More Settings Tools

About 112,000,000 results (0.38 seconds)

**Joining DataFrames in Pandas (article) - DataCamp**  
[https://www.datacamp.com/community/tutorials/joining-dataframes-p... ▾](https://www.datacamp.com/community/tutorials/joining-dataframes-pandas)  
Sep 19, 2018 - Joining and merging DataFrames is the core process to start with data analysis and machine learning tasks. It is one of the toolkits which every ...

**Merge, join, and concatenate — pandas 0.25.1 documentation**  
[https://pandas.pydata.org/pandas-docs/stable/user\\_guide/merging.html ▾](https://pandas.pydata.org/pandas-docs/stable/user_guide/merging.html)  
Like its sibling function on ndarrays, `numpy.concatenate`, `pandas.concat` takes a list ... When gluing together multiple DataFrames, you have a choice of how to ...

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Join columns with other DataFrame either on index or on a key column. Efficiently join multiple ...  
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**Joining Pandas Dataframes - Data Carpentry**  
[https://datacarpentry.org/python-socialsci/11-joins/ ▾](https://datacarpentry.org/python-socialsci/11-joins/)  
Questions. How can I join two Dataframes with a common key? Objectives. Understand why we would want to join Dataframes. Know what is needed for a join to ...

**How to join (merge) data frames (inner, outer, left, right ...**  
[https://stackoverflow.com/questions/how-to-join-merge-data-frames-in... ▾](https://stackoverflow.com/questions/how-to-join-merge-data-frames-in-python)  
13 answers  
Nov 9, 2015 - You can also use the `by.x` and `by.y` parameters if the matching variables have different names in the different data frames. Outer join: `merge(x = df1, y = df2, ...`

**JOIN two dataframes on common column in python** Jan 4, 2017  
**Concatenate rows of two dataframes in pandas** Jan 14, 2018  
**How to merge two dataframes side-by-side?** Jun 14, 2018



help with



## searcher

offers preliminary support for automatically or manually searching errors that are generated in R.

# help with searcher



The screenshot shows the RStudio interface with the following details:

- Script Editor:** The file `searcher.R` contains the following R code:

```
1 # load packages -----
2
3 library(searcher)
4
5 # search something -----
6
7 search_stackoverflow("join data frames tidyverse")
8
9 # search an error -----
10
11 library(dplyr)
12
13 mtcars %>%
14   group_by(cyl) %>%
15   summarise(summary(mpg))
16 search_google()
```
- Console:** The console window is empty.
- File Browser:** The sidebar shows the file path: Home > Desktop > Talks > wtf-teach > latin-R > searcher. The file `searcher.R` is selected, showing its size (406 B) and last modified date (Sep 26, 2019, 4:18 AM).
- Environment:** The environment pane shows the Global Environment is empty.

# help with searcher



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- Environment:** The environment pane shows the Global Environment is empty.

# help with searcher



RStudio interface showing the 'searcher' package being used to search for Stack Overflow posts about joining data frames in the tidyverse.

The code in the script editor (searcher.R) is:

```
1 # load packages -----
2
3 library(searcher)
4
5 # search something -----
6
7 search_stackoverflow("join data frames tidyverse")
8
9 # search an error -----
10
11 library(dplyr)
12
13 mtcars %>%
14   group_by(cyl) %>%
15   summarise(summary(mpg))
16 search_google()
```

The console output shows the command being run and the search results being displayed in a web browser:

```
> library(searcher)
> search_stackoverflow("join data frames tidyverse")
Searching query in web browser ...
>
```

The file browser shows the 'searcher.R' file in the 'latin-R' folder.

Name	Size	Modified
searcher.R	406 B	Sep 26, 2019, 4:18 AM

help with



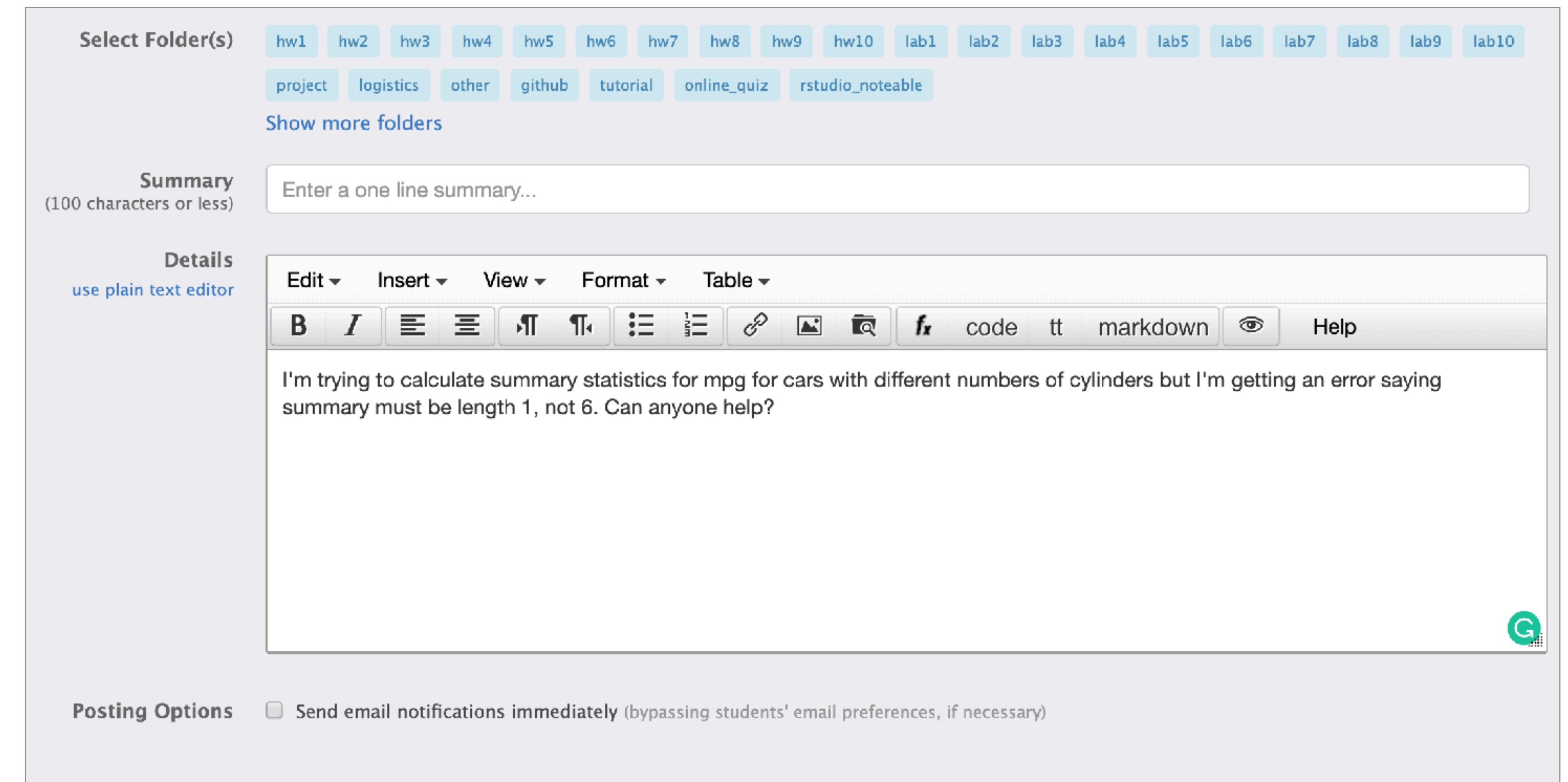
**reprex**

forces students to fulfil the technical criteria  
so the instructor can focus on the help that  
only a human can provide

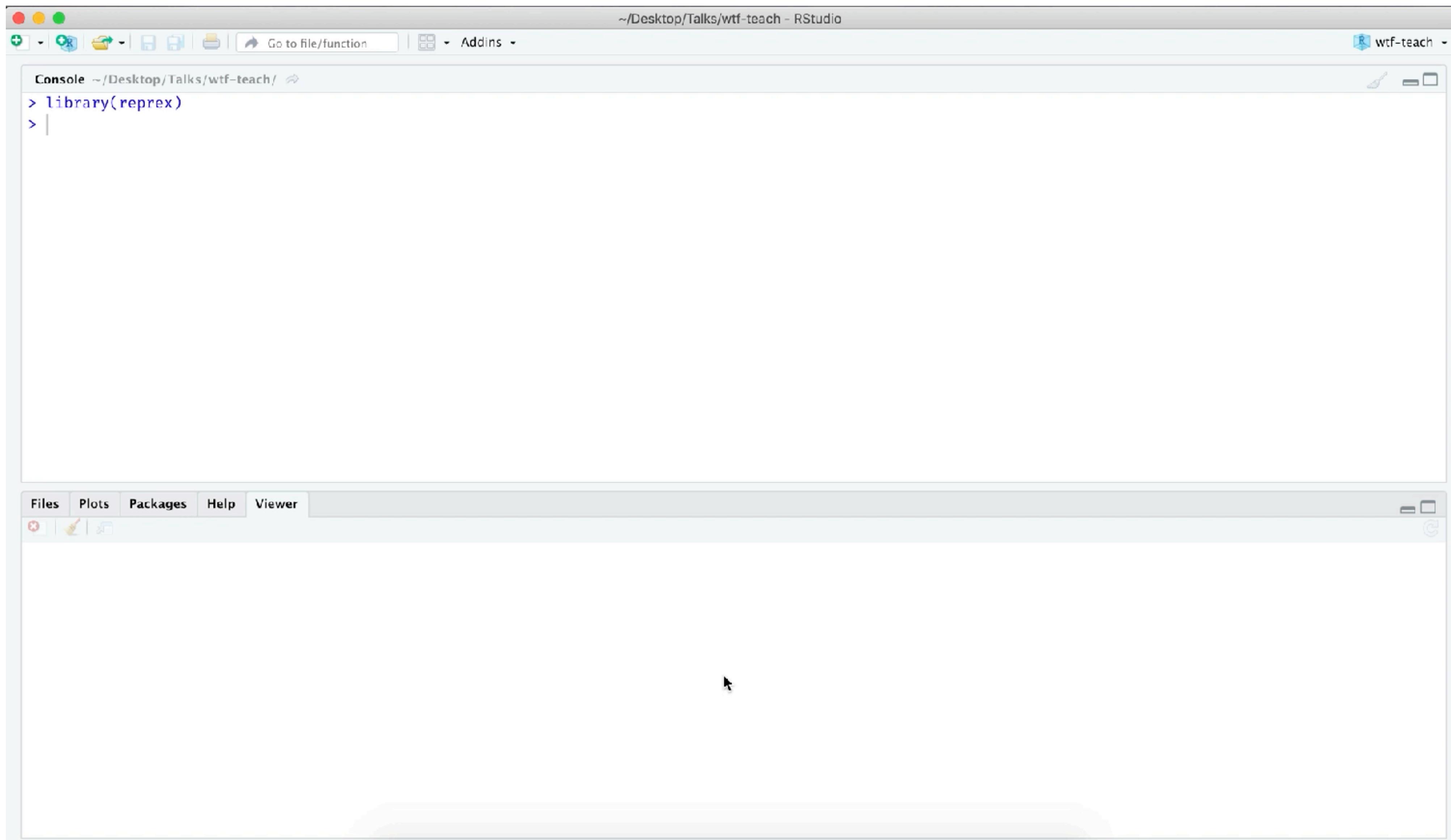
"Robot Pedantry, Human Empathy"

🔗 [mikemcquaid.com/2018/06/05/robot-pedantry-human-empathy](https://mikemcquaid.com/2018/06/05/robot-pedantry-human-empathy)

# sans reprex



# with reprex



A screenshot of the RStudio interface. The title bar reads " ~/Desktop/Talks/wtf-teach - RStudio". The top menu bar includes "File", "Plots", "Packages", "Help", and "Viewer". The main console window shows the command: > library(reprex). The status bar at the bottom indicates "wtf-teach". A green checkmark icon is located in the bottom left corner.

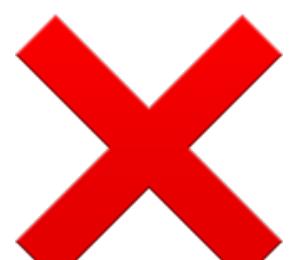
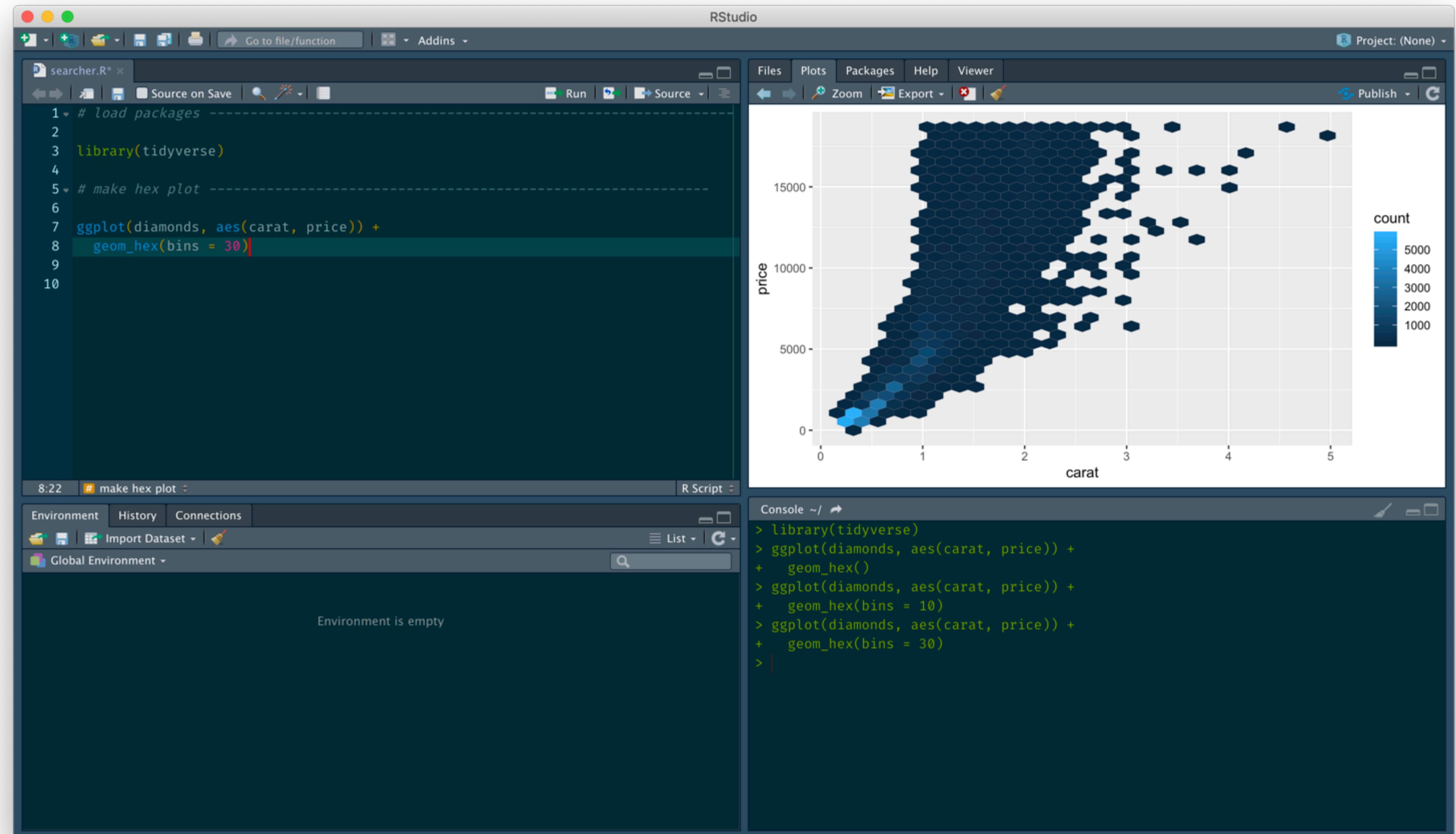
```
> library(reprex)
```

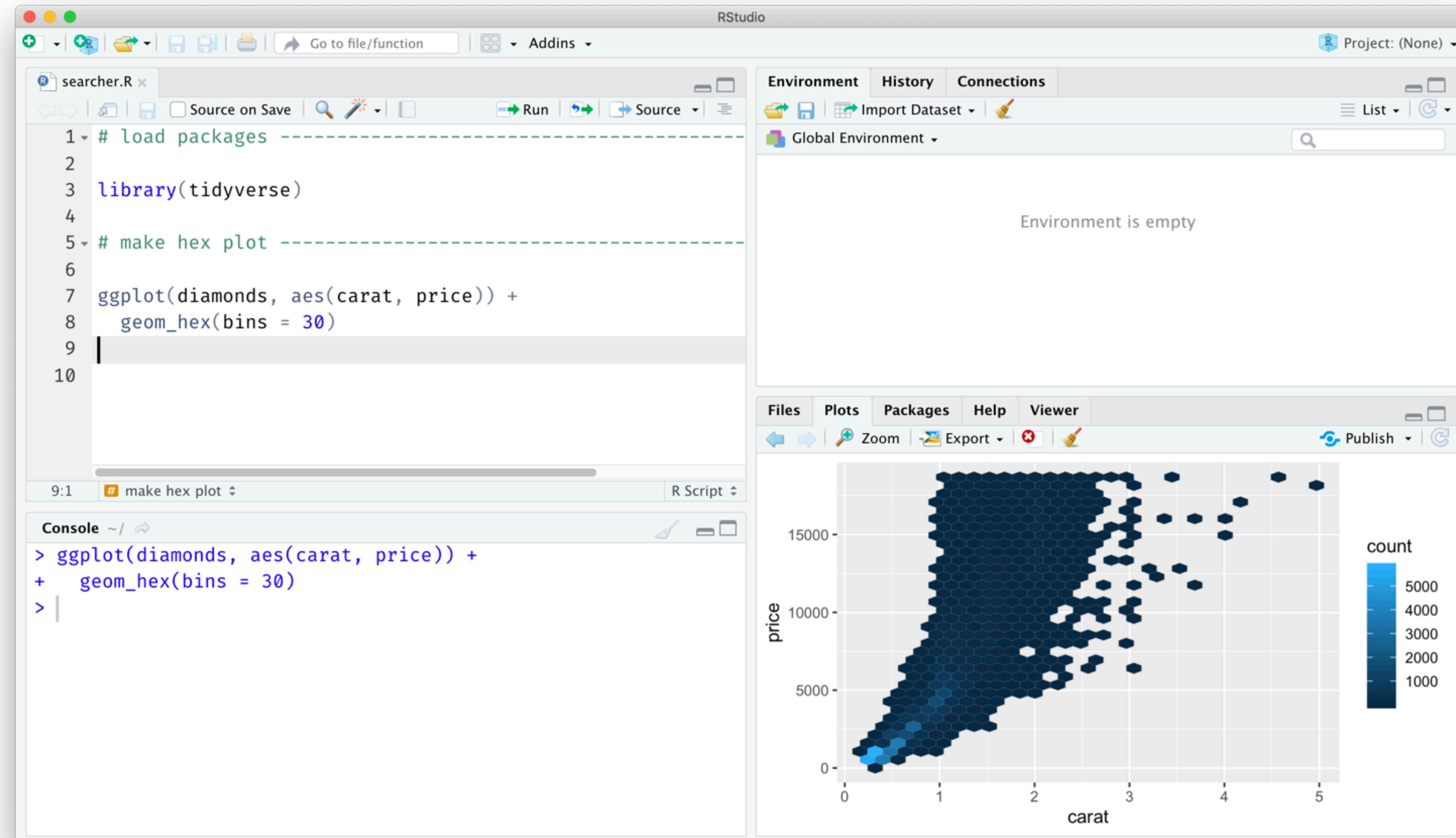


3

live code  
early & often





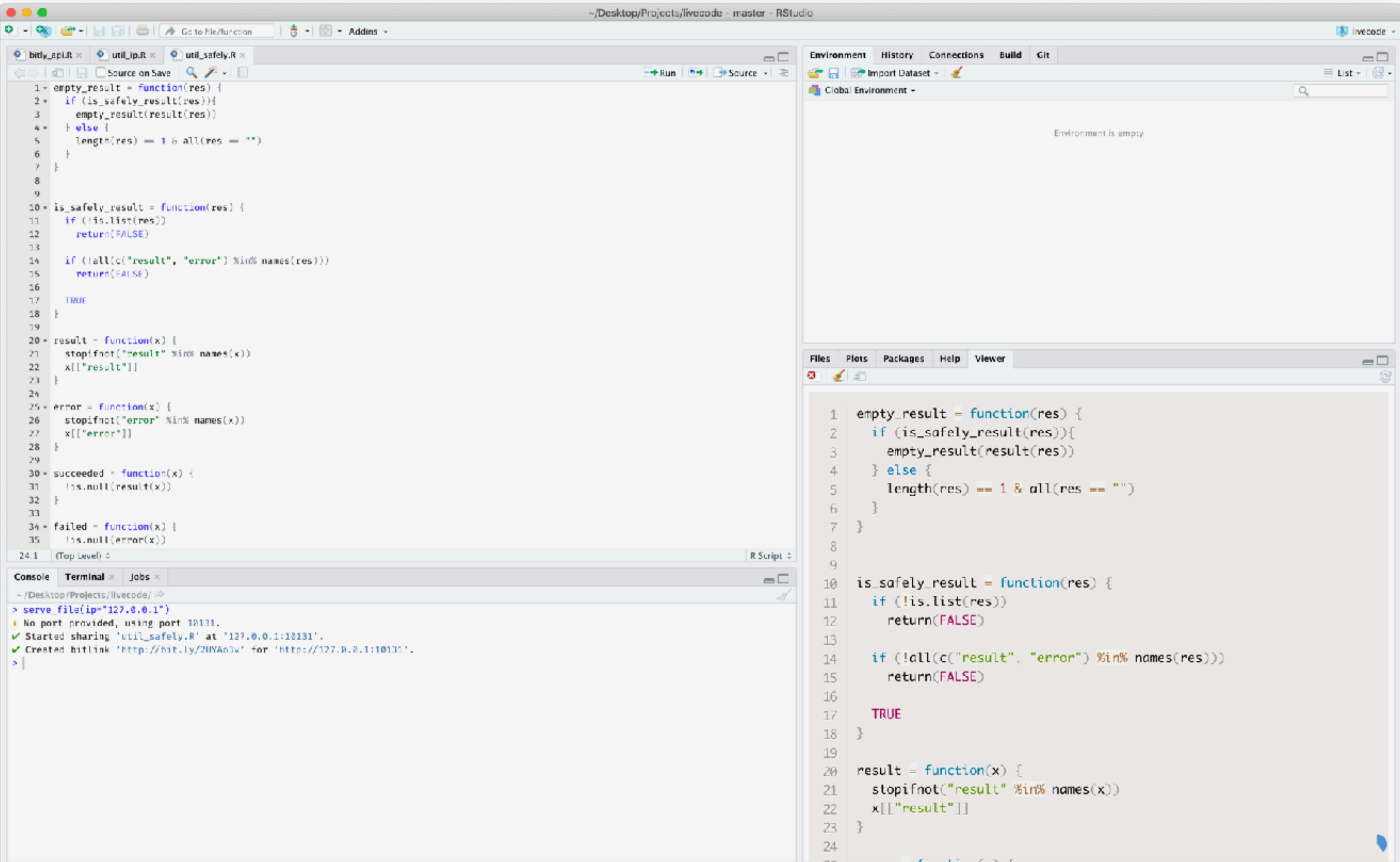


# livecoding tips

- 🎨 use default appearance and font styles
- 🔍 zoom in and use larger fonts
- ✋ avoid keyboard shortcuts, unless carefully narrating
- 👀 test your physical space / back of classroom
- ⏺ + record
- 🚀 + broadcast

# livecode with

## livecode



The screenshot shows the RStudio interface with the following components:

- Left Panel (Code Editor):** Displays an R script named `util_safely.R`. The code defines several functions: `empty_result`, `is_safely_result`, `result`, `error`, `succeeded`, and `failed`. It includes logic to check if a result is empty, if it's a list, and if it contains specific keys like "result" or "error".
- Console:** Shows the command `> serve file(ip="127.0.0.1")` being run, which starts a local server at port 10131.
- Global Environment:** Shows the message "Environment is empty".
- Right Panel (Viewer):** Displays the same R script code for reference.

[github.com/rundel/livecode](https://github.com/rundel/livecode)

4

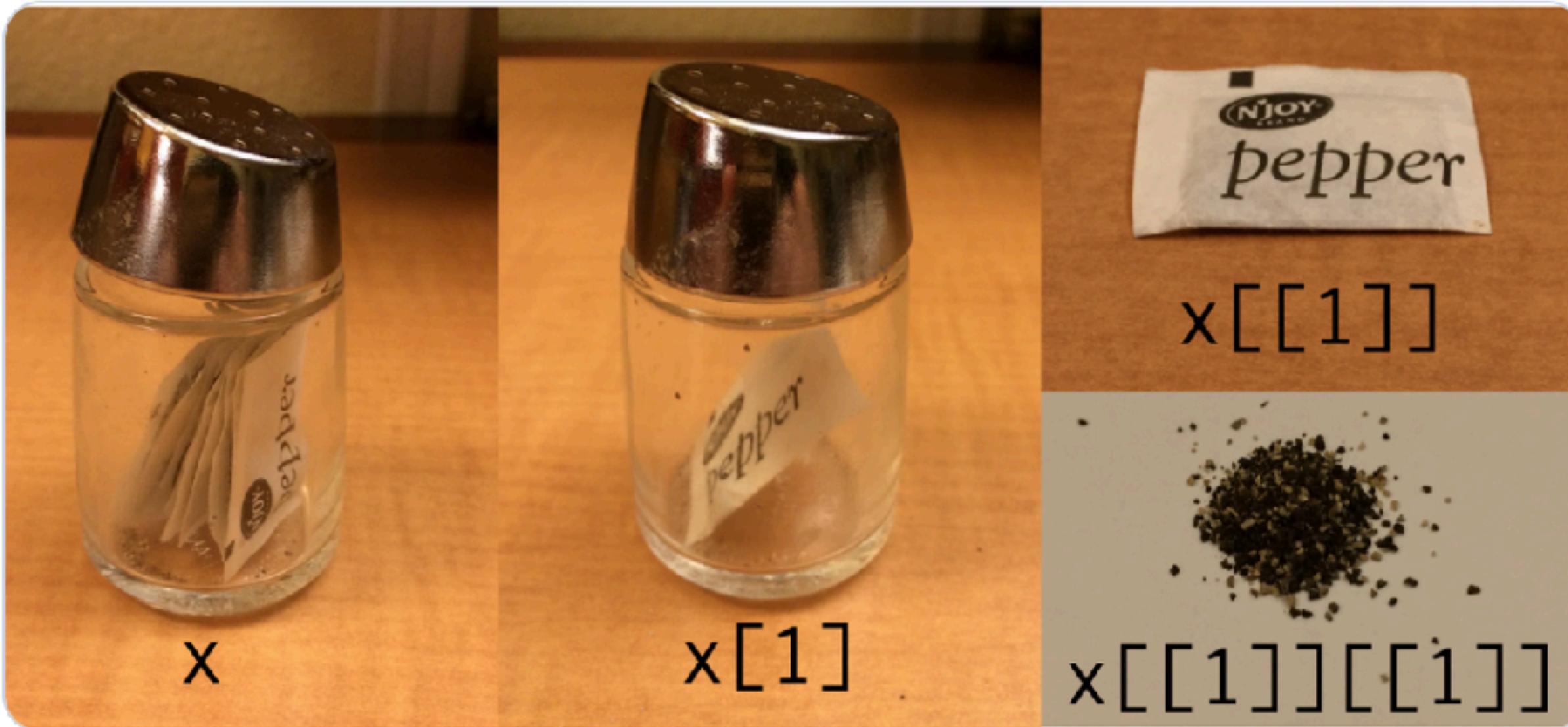
leverage  
visuals





Hadley Wickham   
@hadleywickham

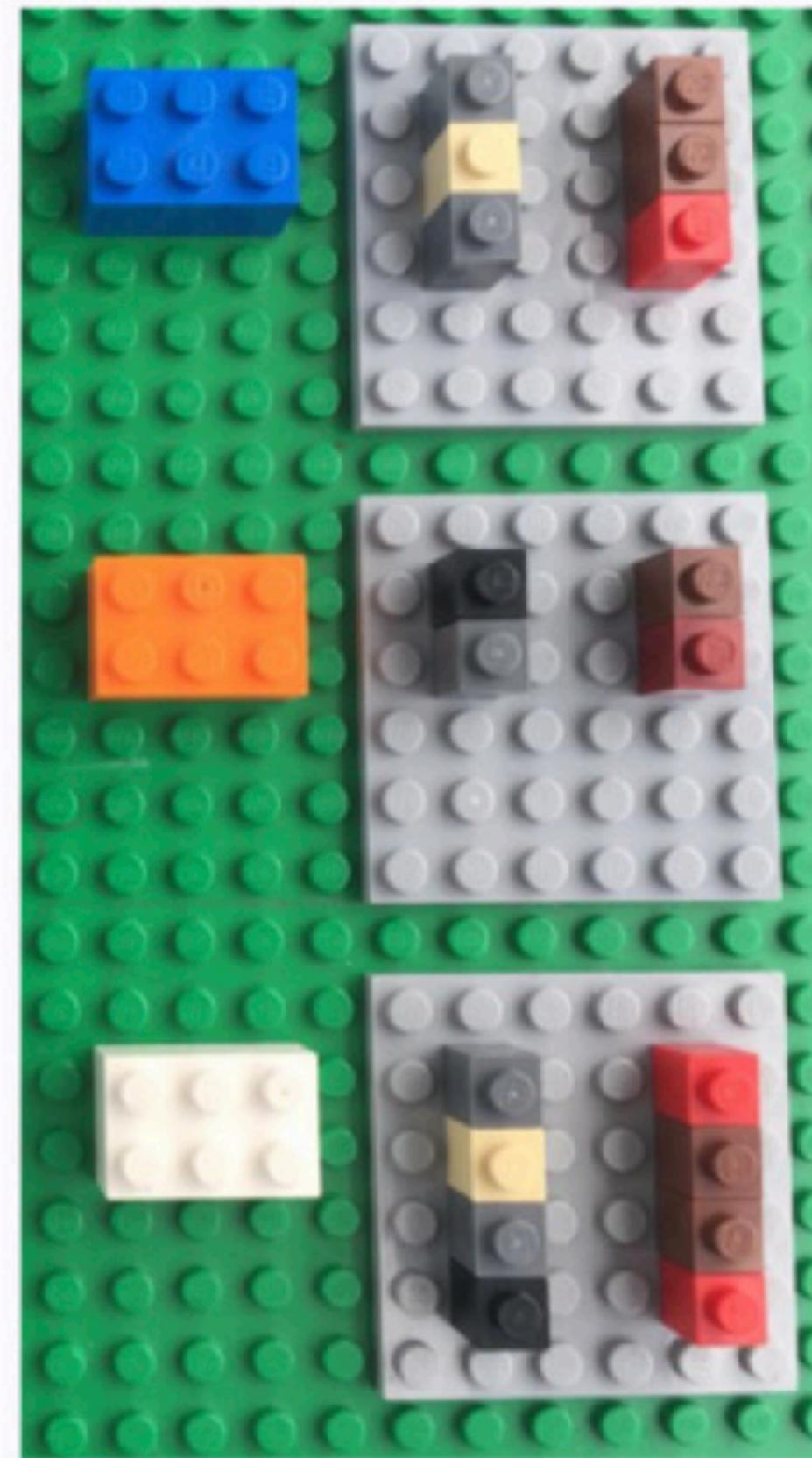
Indexing lists in **#rstats**. Inspired by the Residence Inn



8:09 AM · Sep 14, 2015 · Echofon



[twitter.com/hadleywickham/status/643381054758363136](https://twitter.com/hadleywickham/status/643381054758363136)



```
gap_nested <- gapminder %>%
  group_by(country) %>%
  nest()
gap_nested
#> # A tibble: 142 × 2
#>   country               data
#>   <fctr>                <list>
#> 1 Afghanistan <tibble [12 × 5]>
#> 2 Albania    <tibble [12 × 5]>
#> 3 Algeria    <tibble [12 × 5]>
#> 4 Angola     <tibble [12 × 5]>
#> 5 Argentina   <tibble [12 × 5]>
#> 6 Australia   <tibble [12 × 5]>
#> 7 Austria    <tibble [12 × 5]>
#> 8 Bahrain    <tibble [12 × 5]>
#> 9 Bangladesh <tibble [12 × 5]>
#> 10 Belgium   <tibble [12 × 5]>
#> # ... with 132 more rows
```

🔗 [jennybc.github.io/purrr-tutorial/more-resources.html](https://jennybc.github.io/purrr-tutorial/more-resources.html)

# reprex:

crea  
EJEMPLOS  
REPRODUCIBLES

AYÚDANOS A AYUDARTE A TODOS!



🔗 [github.com/allisonhorst/stats-illustrations](https://github.com/allisonhorst/stats-illustrations)

# and leverage non-visuals

Dr. Kaitlin Stack Whitney @KStackWhitney · Jun 25  
Replying to @kirstie\_j and @minebocek  
Hope this includes non visual, other sense based ways to represent data!  
 1 ⤵ ❤️ ⤴

Kirstie Whitaker @kirstie\_j · Jun 25  
That's a super interesting point. The thrust of @minebocek's talk was on putting the \*fun\* parts of working with data at the front. I think it would generalise really well to audio output etc too. What other representations were you thinking of?  
 1 ⤵ ❤️ ⤴

Dr. Kaitlin Stack Whitney @KStackWhitney · Jun 25  
Touch, sound -- @aohasley gave a wonderful talk at @EdsiNetwork conf on necessity of multimodal data representation - so as not to presume or require vision, or any particular sensory ability/disability  
 1 ⤵ 1 ❤️ 4 ⤴

Mine CetinkayaRundel @minebocek · Jun 25  
This is a really good point, and one many don't currently have a good way of addressing in a data science curriculum, I'd be really interested in hearing how others tackle it  
 3 ⤵ 1 ❤️ ⤴

Dr. Kaitlin Stack Whitney @KStackWhitney · Jun 25  
Replying to @minebocek @kirstie\_j and 2 others  
there are a lot of people thinking and presenting on this. here's an event by @tchoi8 and @ChanceyFleet this week -  


ChanceyFleet 🌈 🍎 @ChanceyFleet · Jun 23  
Explore spatial thinking & communication in the absence of image.  
Non-Visual Origami Workshop | Hosted by Chancey Fleet with @Tchoi8 & @Robbykraft Tickets, Thu, Jun 27, 2019 at 3:00 PM @DataSociety eventbrite.com/e/non-visual-o...

  
 1 ❤️ 4 ⤴



twitter.com/KStackWhitney/status/1143497505654677504

5

define & pronounce  
terms



# define

## > ?double

double {base}

R Documentation

## Double-Precision Vectors

### Description

Create, coerce to or test for a double-precision vector.

### Usage

```
double(length = 0)
as.double(x, ...)
is.double(x)
```

```
single(length = 0)
as.single(x, ...)
```

### Arguments

**length** A non-negative integer specifying the desired length. Double values will be coerced to integer:  
supplying an argument of length other than one is an error.

**x** object to be coerced or tested.

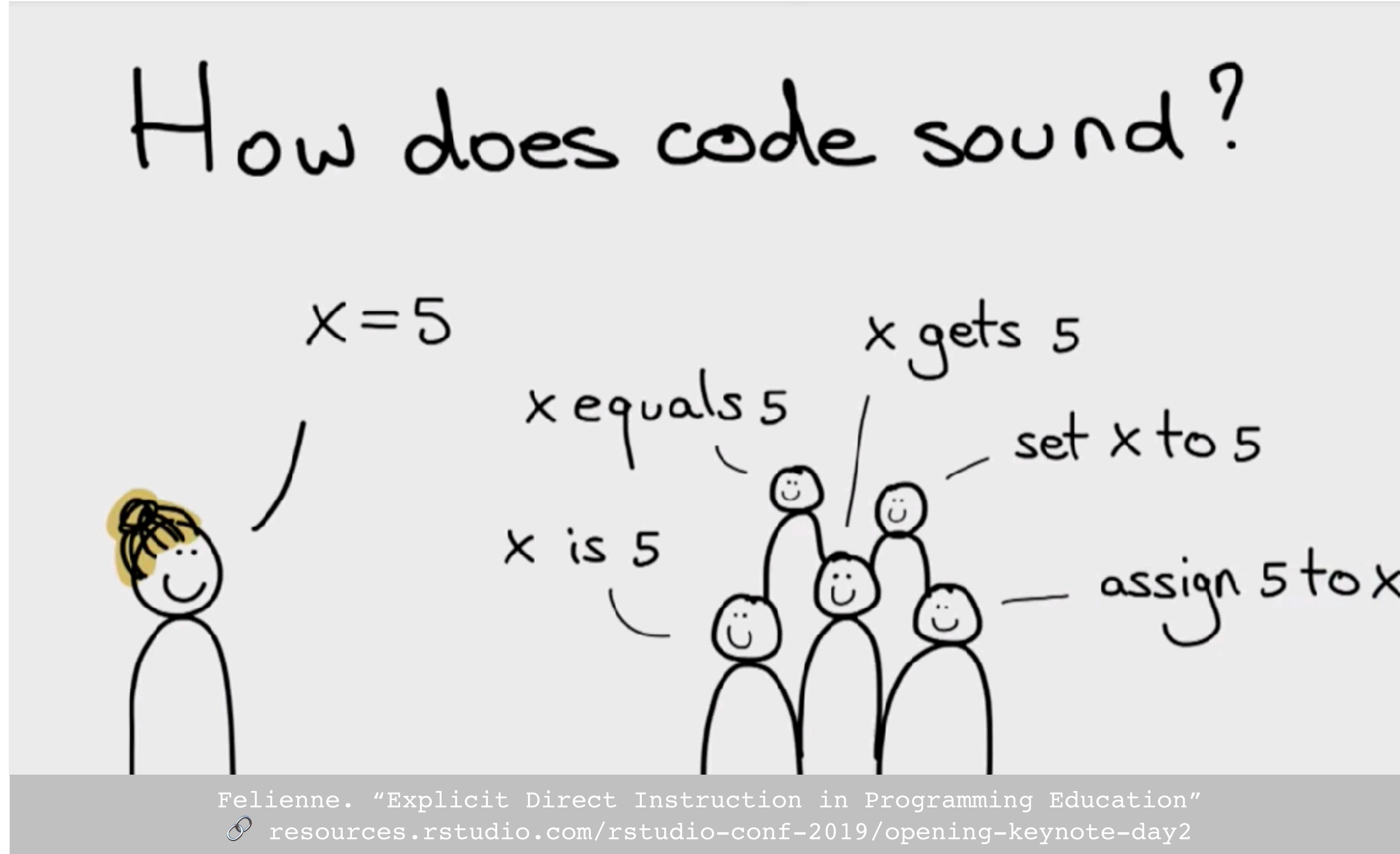
**...** further arguments passed to or from other methods.

### Details

`double` creates a double-precision vector of the specified length. The elements of the vector are all equal to `0`. It is identical to [numeric](#).

`as.double` is a generic function. It is identical to `as.numeric`. Methods should return an object of base type "double".

# pronounce



6

highlight  
diversity



# gender diversity

## LGBT+ resources for statisticians and data scientists

Written by Donna LaLonde, Wendy Martinez, Jack Miller, Miles Ott and Suzanne Thornton on 30 May 2019.

Posted in [Culture](#)



In professional and classroom settings, we strive to communicate the intention of a respectful and productive interaction. In order to accomplish this, we all need to be mindful of our implicit biases, especially when beginning new professional relationships and establishing learning environments. The resources provided in this article are presented with this very intention.

**Editor's note** For further discussion of LGBT+ inclusion in statistics and data science, see [this related article](#) from our June 2019 print edition.

We have organized the following resources and tips as outlines and checklists for ease of implementation and adaptation. This resource should be viewed as an initial (and by no means exhaustive) reference and we encourage your contributions. Please use the comments section or this [Google form](#) to contribute your additional resources or tips.

 [significancemagazine.com/624](https://significancemagazine.com/624)

- > EU Lesbian, Gay, Bisexual and Transgender Survey
- > European Network for the Investigation of Gender Incongruence
- > LGBTData: repository by Drexel University School of Public Health
- > Population Research in Sexual Minority Health (PRISM) Data Archive
- > US Center for Disease Control (CDC) data

# language diversity



RStudio Cheat Sheets - RStudio

rstudio.com/resources/cheatsheets/

- Edgar Ruiz has provided a Spanish translation of the [Data Visualization cheatsheet](#) ([Previous version](#) by Carlos Ortega and Santiago Mota of the [Grupo de Usuarios de R de Madrid](#)).

### Turkish Translations - Türkçe Çeviriler

- Metin Yazıcı has provided Turkish translations of the [Data Import](#), [Data Visualization](#), [R Markdown](#), and [Shiny](#) cheatsheets.
- Hazel kavılı and Berk Orbay have provided Turkish translations of the [Data Transformation](#) cheatsheet and the redesigned [Data Visualization](#) cheatsheet.
- Elif Kartal has provided a Turkish translation of the [Base R](#) cheatsheet.
- Zeki Özen has provided a Turkish translation of the [Regular Expressions](#) cheatsheet.
- İlkim Ecem Emre has provided a Turkish translation of the [caret](#) cheatsheet.

### Ukrainian Translations - українські переклади

Evgeni Chasnovski of [QuestionFlow](#) has provided Ukrainian translations of the [Data Import](#), [Data Transformation](#), [Purrr](#) and [lubridate](#) cheatsheets.

### Uzbek Translations - O'zbek tilidagi tarjimalar

Alisher Suyunov has provided Uzbek translations of the [Data Import](#) and [Data Transformation](#) cheatsheets.

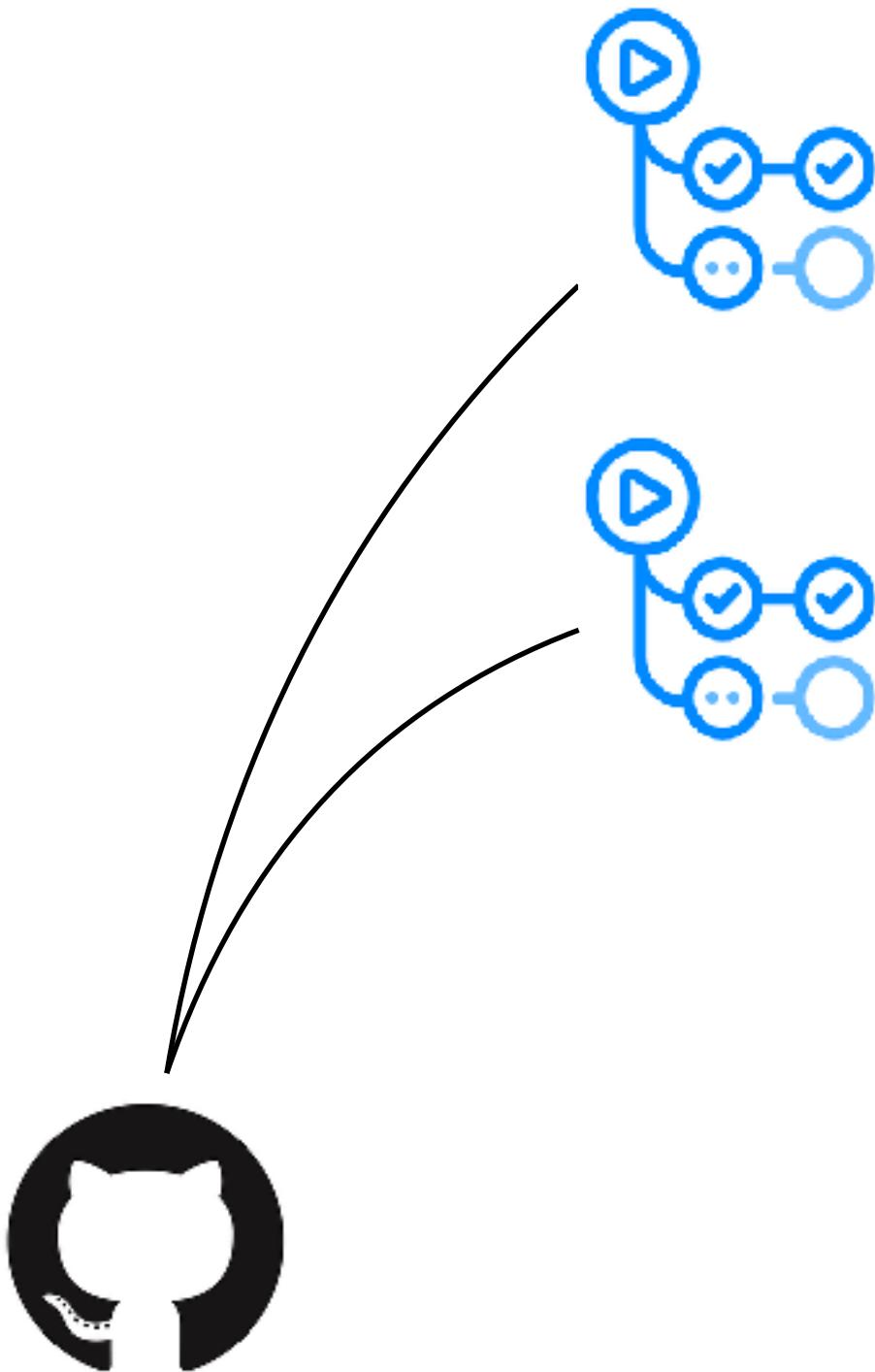
### Vietnamese Translations - Bản dịch tiếng Việt

Anh Hoang Duc and Duc Pham of [RAnalytics.vn](#) have provided Vietnamese translations of the [Data Visualization](#), [Data Wrangling](#), [R Markdown](#), [Shiny](#), [Package Development](#), [Base R](#), [purrr](#), [stringr](#), and [lubridate](#) cheatsheets.



provide  
instant feedback





Does my Rmd knit?

Am I pushing extraneous  
files to my repo?

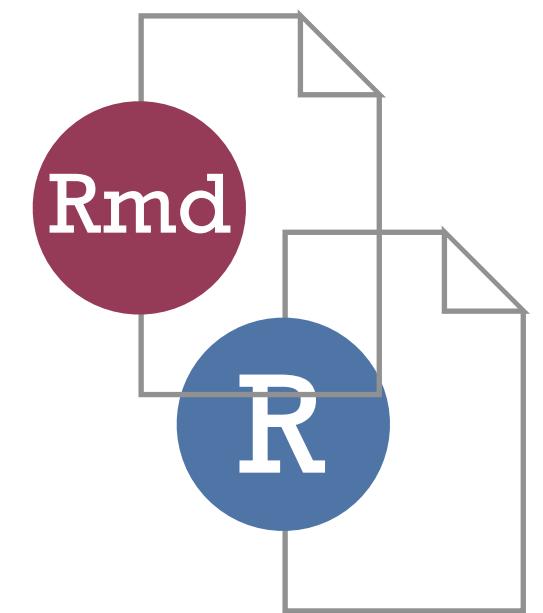
README.md

knit passing

allowed files passing

## lab-07-model-course-evals

Instructions for "Lab 7 - Modeling course evaluations, Pt. 1" are [here](#). Insert your answers to the exercises to [lab-07-model-course-evals.Rmd](#).





# Does my Rmd knit?

 **knit** passing

18 lines (17 sloc) | 354 Bytes

[Raw](#) [Blame](#) [History](#)   

```
1  on:
2    push:
3      branches:
4        - master
5      paths:
6        - 'lab-07-model-course-evals.Rmd'
7    name: knit
8    jobs:
9      knit:
10        runs-on: ubuntu-latest
11        container:
12          image: rocker/tidyverse:latest
13        steps:
14          - name: Checkout
15            uses: actions/checkout@master
16          - name: Check
17            run: Rscript -e "rmarkdown::render('lab-07-model-course-evals.Rmd')"
```



# Am I pushing extraneous files to my repo?

allowed files **passing**

16 lines (15 sloc) | 294 Bytes

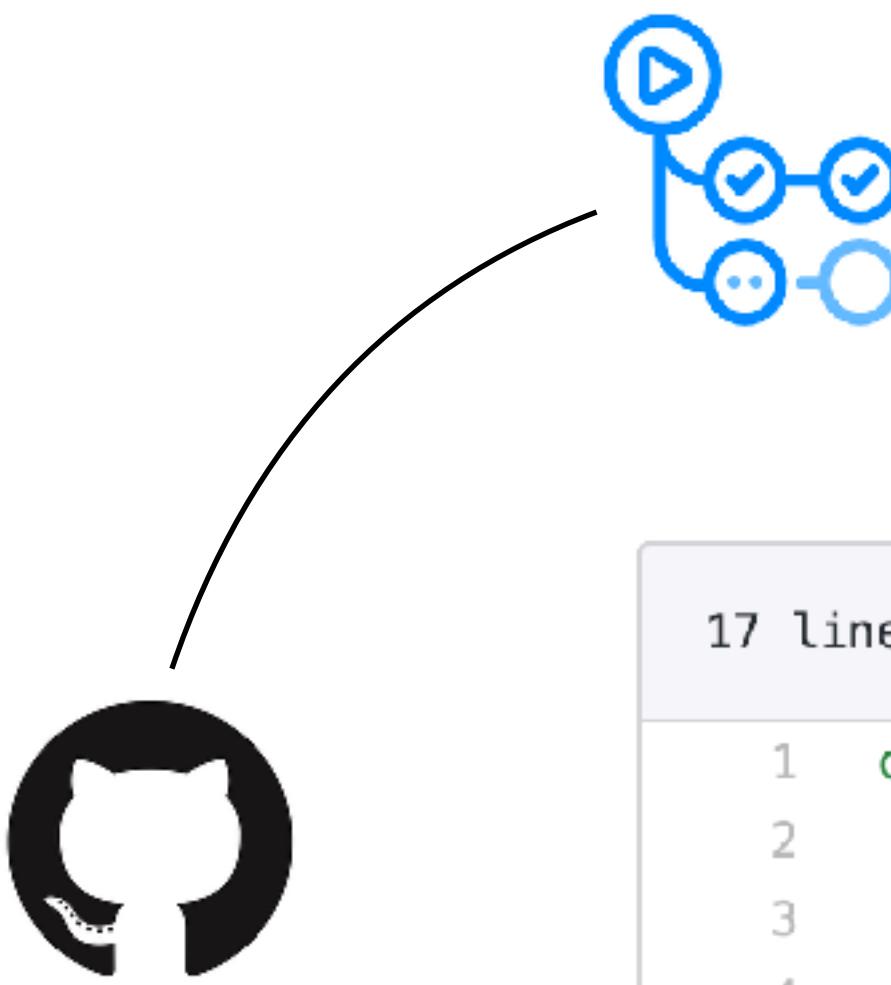
Raw Blame History

```
1 on:
2   push:
3     branches:
4       - master
5   name: allowed files
6   jobs:
7     allowed-files:
8       runs-on: ubuntu-latest
9       container:
10      image: rocker/r-ver:latest
11      steps:
12        - name: Checkout
13          uses: actions/checkout@master
14        - name: Check
15          run: Rscript .github/lab-07-allowed-files.R
```

Executable File | 22 lines (17 sloc) | 611 Bytes

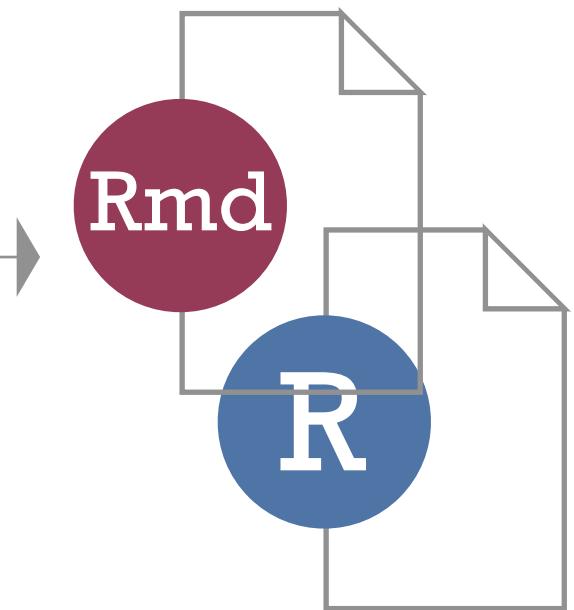
Raw Blame History

```
1 allowed_files = c("lab-07-model-course-evals.md",
2                         "lab-07-model-course-evals.Rmd",
3                         "lab-07-model-course-evals.Rproj",
4                         "lab-07-allowed-files.R",
5                         "README.md",
6                         "data",
7                         "lab-07-model-course-evals_files",
8                         ".gitignore")
9
10 files = dir()
11 disallowed_files = !files %in% allowed_files
12
13 if (any(disallowed_files)) {
14   cat("Disallowed files found:\n")
15   cat("  (remove the following files from your repo)\n\n")
16
17   for(file in files[disallowed_files])
18     cat("*",file,"\n")
19
20   quit("no",1,TRUE)
21 }
```



# Am I following style guidelines?

*periodically*



17 lines (17 sloc) | 487 Bytes

Raw Blame History

```
1 on:
2   schedule:
3     - cron: '30 13 * * *'
4 name: style
5 jobs:
6   style:
7     runs-on: ubuntu-latest
8     container:
9       image: rundel/ghclass:latest
10    steps:
11      - name: Run styler on repo
12        env:
13          GITHUB_PAT: ${{ secrets.GITHUB_TOKEN }}
14        run:
15          git config --global user.name "${GITHUB_ACTOR}"
16          git config --global user.email "noreply@github.com"
17          Rscript -e "ghclass::repo_style(\"${GITHUB_REPOSITORY}\", tag_collaborators = FALSE, prompt = FALSE)"
```

```
repo_style(repo = "ghclass-demo/hw-03-ncbikecrash-ghclass-anya",
           files = "*.Rmd", draft = TRUE)
```

```
#> ✓ Created branch 'styler' from 'ghclass-demo/hw-03-ncbikecrash-ghclass-anya'.
#> ✓ Cloned 'ghclass-demo/hw-03-ncbikecrash-ghclass-anya@styler'.
#> ✓ Created pull request for 'ghclass-demo/hw-03-ncbikecrash-ghclass-anya (master <=
styler)'.
```

styler revisions #1

Draft mine-cetinkaya... wants to merge 1 commit into master from styler

Conversation 0 Commits 1 Checks 0 Files changed 1 +16 -18

mine-cetinkaya... commented 14 minutes ago

This pull request contains the results of running the automated R code formating tool styler on your repo. Styling is based on the [tidyverse R style guide](#).

Click on the commit below to see details of recommended changes. It is not necessary that your code cleanly pass these checks, but if there is a large number of significant changes suggested you should review the style guide with an eye towards potentially improving your code formatting.

@ghclass-anya

Results of running styler: 721c39c

Add more commits by pushing to the **styler** branch on [ghclass-demo/hw-03-ncbikecrash-ghclass-anya](#).

**This pull request is still a work in progress**  
Draft pull requests cannot be merged.

Merge pull request You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Ready for review

Reviewers: ghclass-anya Request

Suggestions: None yet

Assignees: None yet

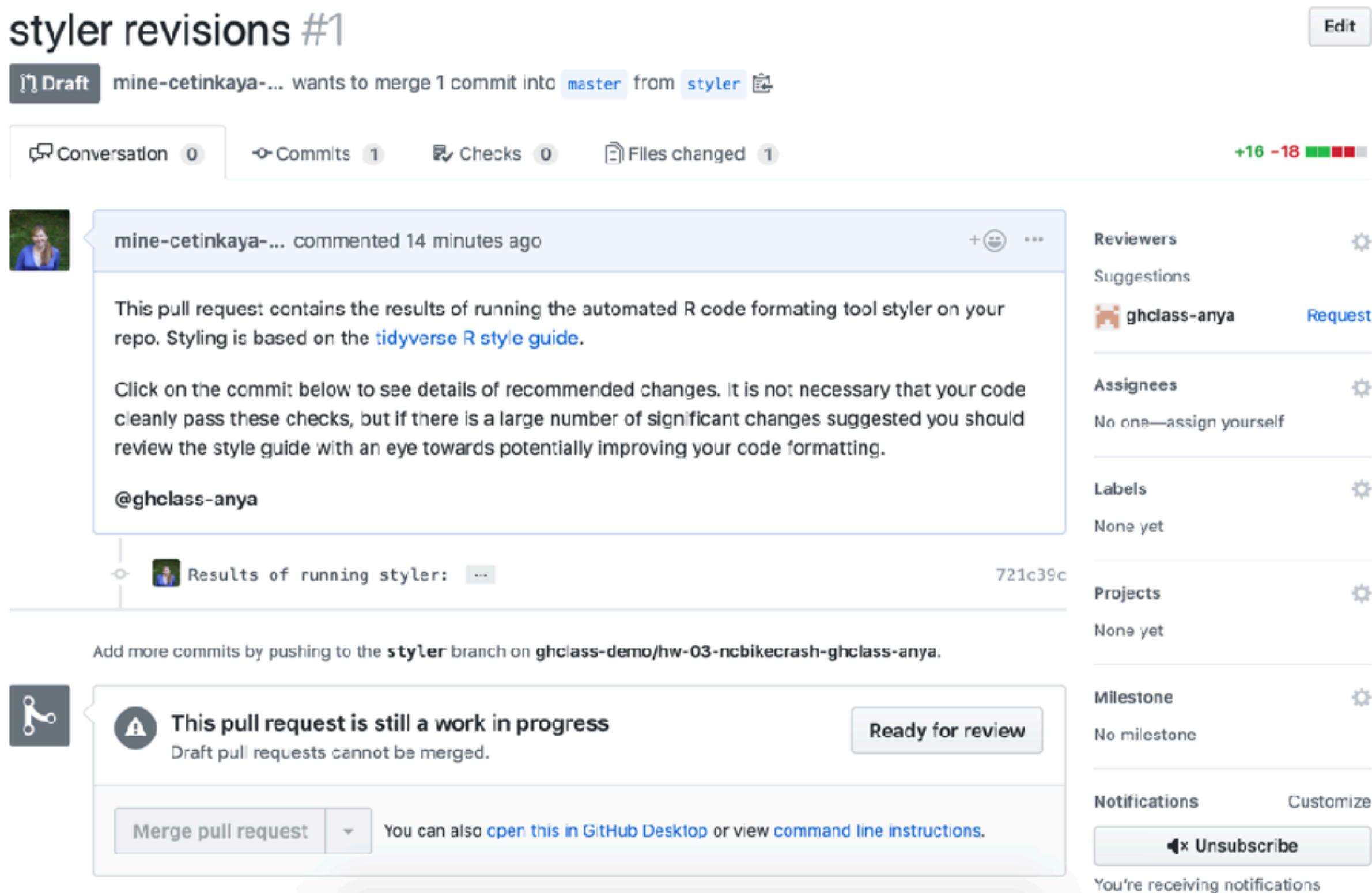
Labels: None yet

Projects: None yet

Milestone: None yet

Notifications: Customize Unsubscribe

You're receiving notifications



styler revisions #1

Draft mine-cetinkaya-... wants to merge 1 commit into master from styler

Conversation 0 Commits 1 Checks 0 Files changed 1 +16 -18

Changes from all commits ▾ File filter... ▾ Jump to... ▾ Review changes ▾

### Results of running styler:

```
Styling 1 files:  
hw-03-ncbikecrash.Rmd
```

Status	Count	Legend
✓	0	File unchanged.
✗	1	File changed.
✗	0	Styling threw an error.

Please review the changes carefully!

styler (#1)

mine-cetinkaya-rundel committed 16 minutes ago commit 721c39cf8b6c0e6b3bc50f2918747415910b980e

34 hw-03-ncbikecrash.Rmd

```
@@ -7,7 +7,7 @@ output: github_document  
7  
8 ```{r load-packages, message=FALSE}  
9 # load packages  
10 -library(tidyverse)
```

```
7  
8 ```{r load-packages, message=FALSE}  
9 # load packages  
10 +library(tidyverse)
```

don't just point out negatives

take a note from **praise**,  
also comment on positives

8

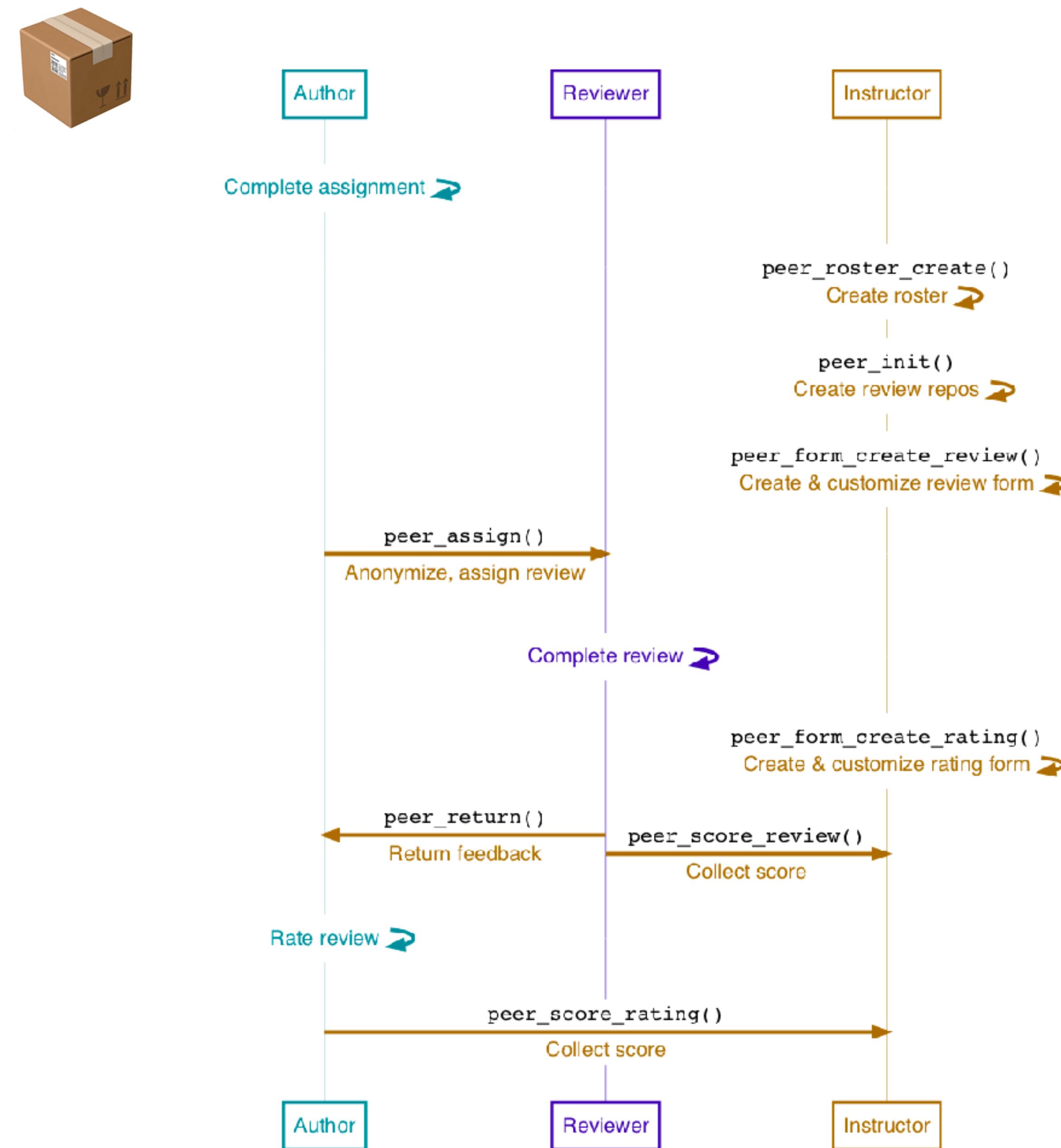
invite  
peer feedback



# peer review

- 对学生来说， make expertise “contagious” within your class
- 对教师来说， help students see their work through another’s eyes, without instructor having to point out flaws

# peer review with ghclass



9

amplify diverse  
voices



● ○ ● Welcome to Data Science 🎉 X ⚡ Simple uses of the vagalumeR X +

Not Secure | brunaw.com/post/2017-06-25-vagalumer/

BRUNA WUNDERVALD Home R Packages Posts Projects Talks & Workshops Curriculum Vitae Contact



## Simple uses of the vagalumeR package

Sun, Jun 25, 2017 @map[content:Page(/post/2017-06-25-vagalumeR.html) is\_list:0] 📁 análises, r  
↳ musica

The website <https://www.vagalume.com.br> is where we can obtain information about songs and their lyrics (with translations, when they're not in portuguese). This same website has an API, which can be accessed in R, through the `vagalumeR` package. Here, we have some demonstrations about the functionalities of the package, focusing on the analysis of music lyrics.

```
# Package loading
library(vagalumeR)
library(tidyverse)
library(tm)
library(lattice)
library(lexiconPT)
library(latticeExtra)
library(wordcloud)
library(networkD3)

packageVersion("vagalumeR")
```

```
[1] '0.1.1'
```

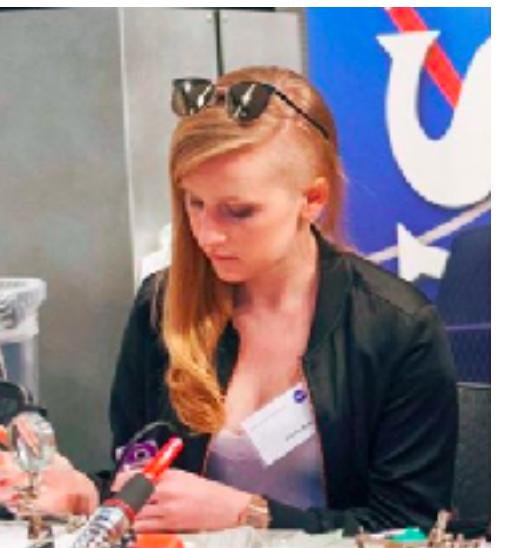
To access the API, the user must have in hand his `access token`, which can be obtained at the web address: <https://auth.vagalume.com.br/settings/api/> The steps are:

>Welcome to Data Science X The US of Bey · Brooke Watson X Simple uses of the vagalumeR X +

blog.brooke.science/posts/the-us-of-bey/ ⌂ 1 G ⋮

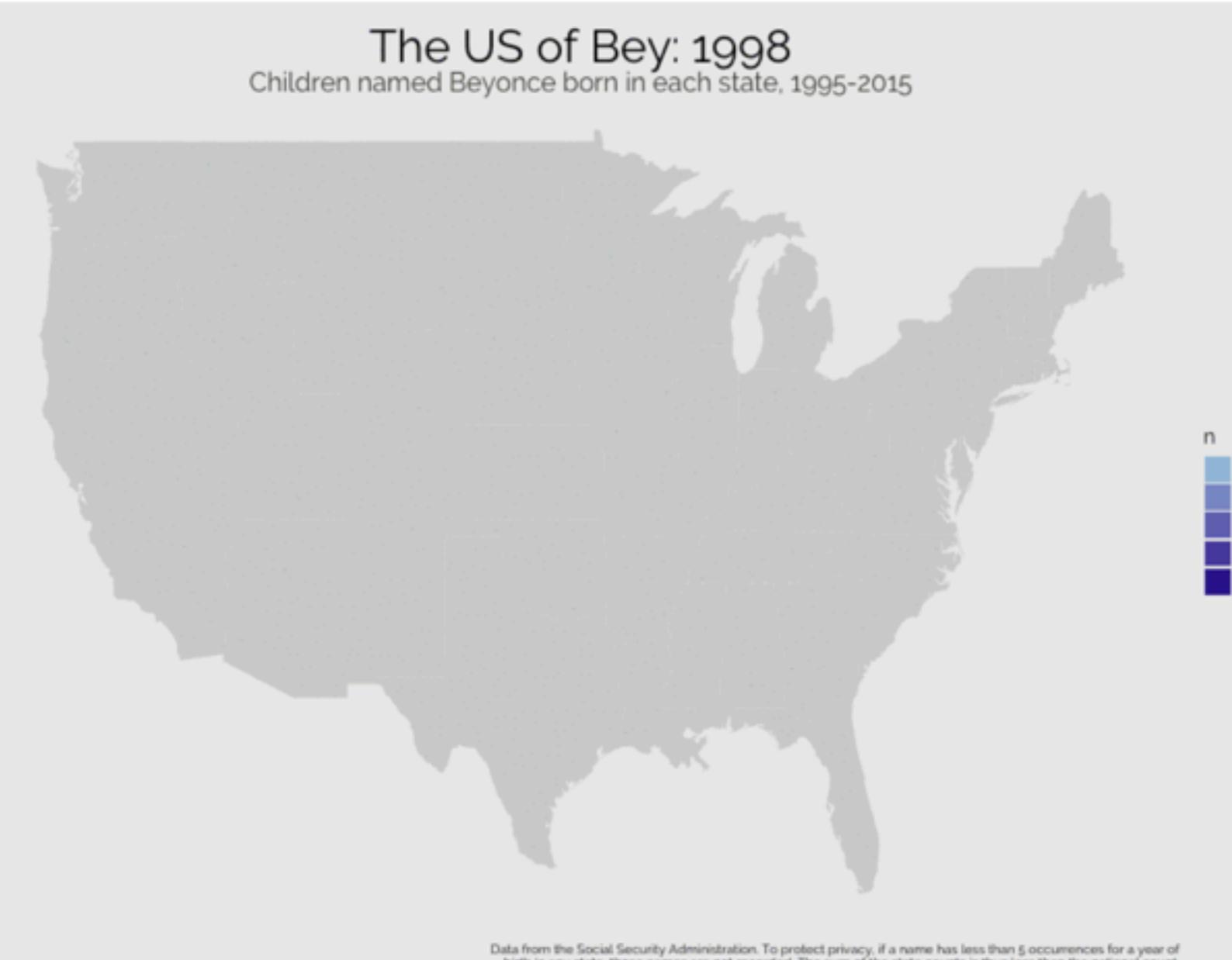
are they? Is the name getting more popular as her fame grows? What's it like to be named Beyoncé in high school in 2015?

Brooke Watson



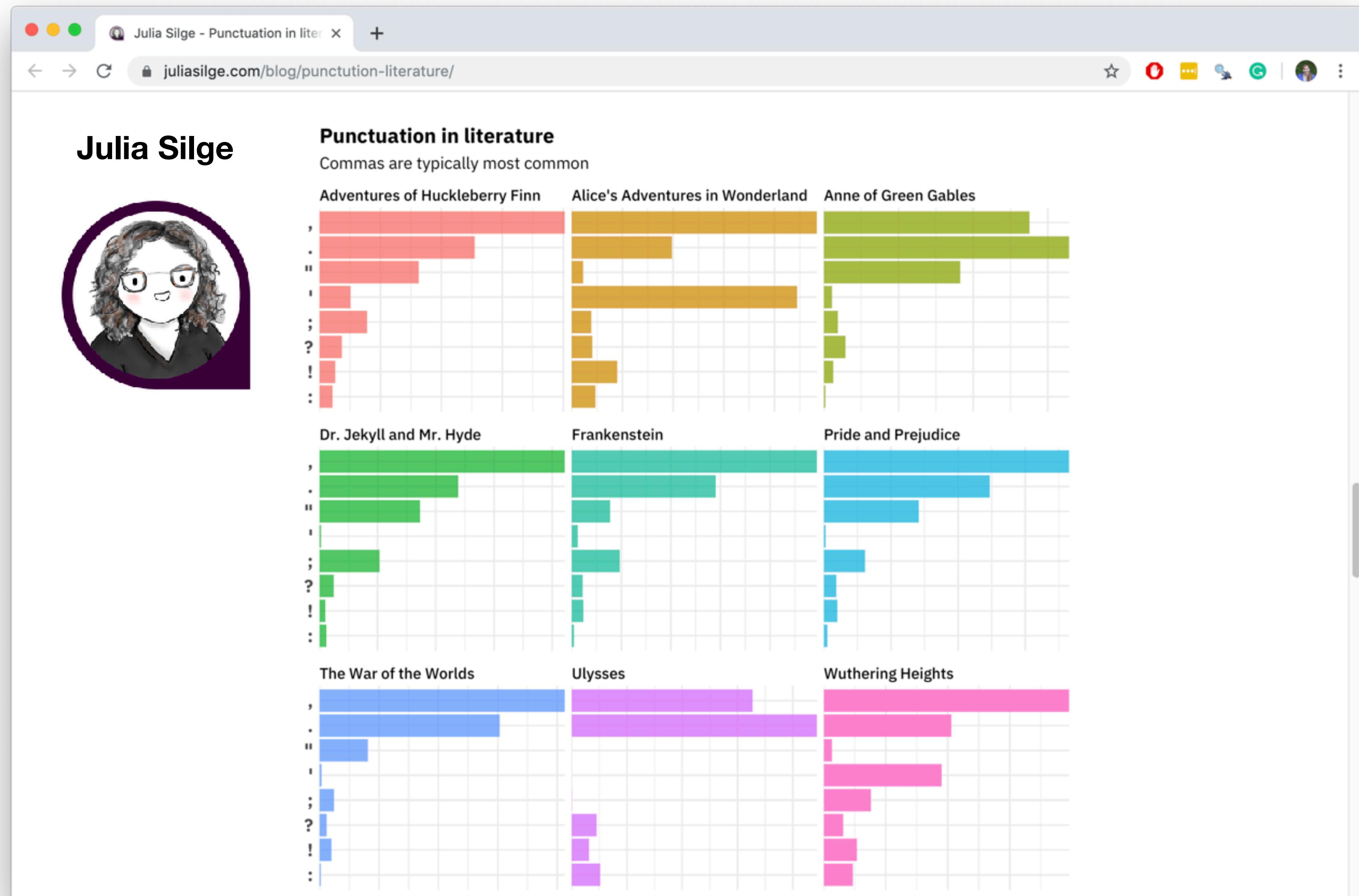
Thanks to the `babynames` package in R - along with some additional open data from the Social Security Administration - it's pretty easy to answer the first few questions. For the last, we have [Humans of New York](#).

The US of Bey: 1998  
Children named Beyonce born in each state, 1995-2015



Data from the Social Security Administration. To protect privacy, if a name has less than 5 occurrences for a year of birth in any state, those names are not recorded. The sum of the state counts is thus less than the national count.

This post looks at baby name trends in the US, focusing on babies named after Queen Bey. It includes all the data and code necessary to generate these graphs and maps. Note that many of the plots use themes from my own bundle of ggplot convenience



R Questions Tag Pairs on Stack +

onceupondata.com/2017/05/06/r-questions-tag-pairs-on-stackoverflow/ ☆ ○ ⚡ G O | 🌸 :

Once Upon Data ABOUT GITHUB

ONCE UPON DATA

Omayma Said



Posted on May 6, 2017

# R Questions Tag Pairs on Stackoverflow

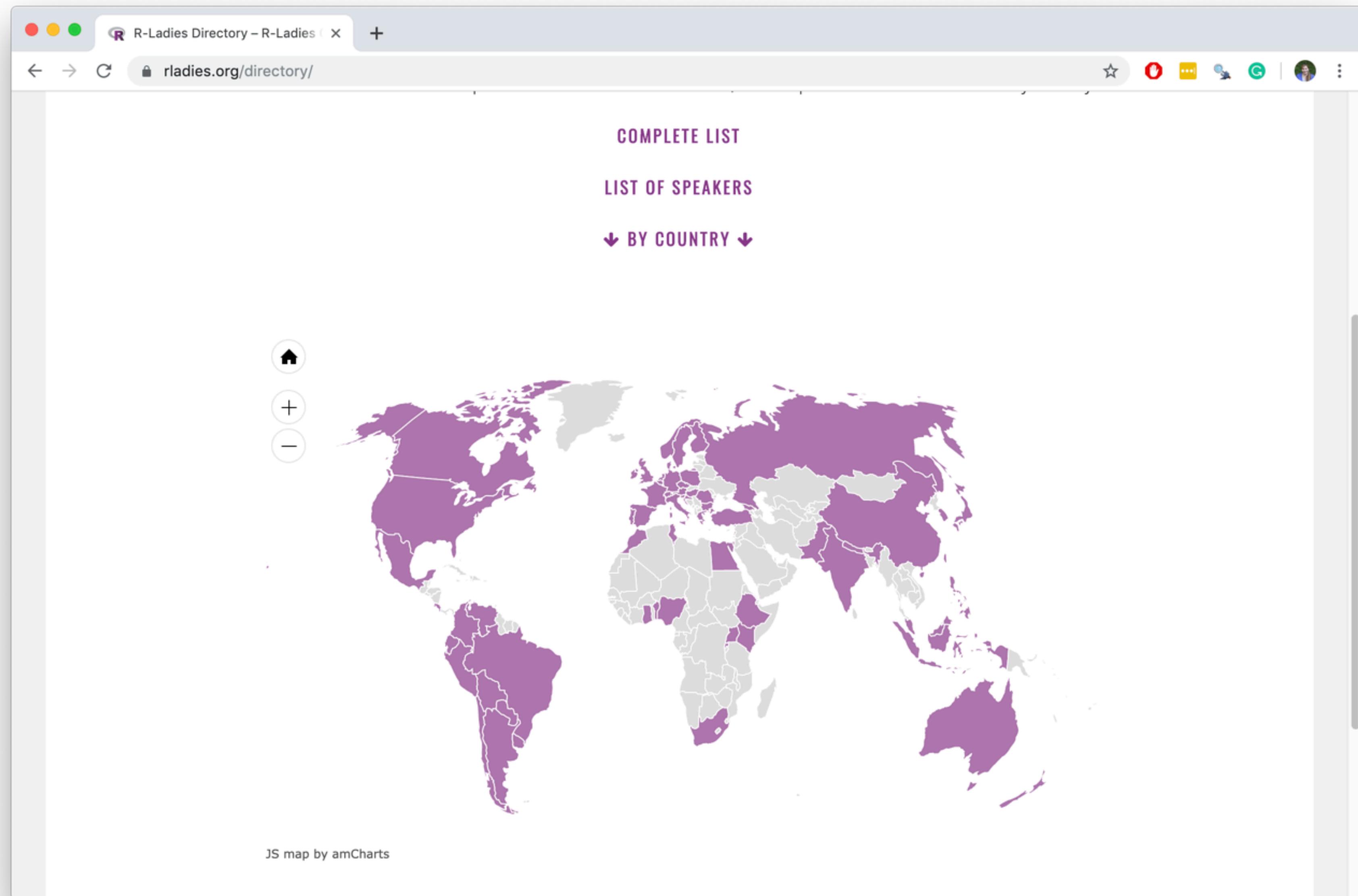
Months ago, I passed by [R Questions from Stack Overflow](#) published on [Kaggle](#). I was interested in tag pairs in particular, i.e. which tags appear together in R questions, so I worked on this simple [kernel](#).

This week, I had some time so I thought about deploying a simple [Shiny App](#), to give more people access to exploring the tag pairs. So here is the App, where you can see the most frequent tags that appear with a certain tag. And below is the full code of how I processed and aggregated the data.

## R Tag Pairs Shiny App

### R Questions Tag Pairs on Stackoverflow

Main Tag Most Frequent Tag-Pairs Tag-Pairs Table



10

make room for  
creativity



# analyze your own data

## Showcase your inner data scientist

### TL;DR

Pick a dataset, any dataset...

...and do something with it. That is your final project in a nutshell. More details below.

PS: Please don't make pie charts for your project.

### May be too long, but please do read

The final project for this class will consist of analysis on a dataset of your own choosing. The dataset may already exist, or you may collect your own data using a survey or by conducting an experiment. You can choose the data based on your interests or based on work in other courses or research projects. The goal of this project is for you to demonstrate proficiency in the techniques we have covered in this class (and beyond, if you like) and apply them to a novel dataset in a meaningful way.

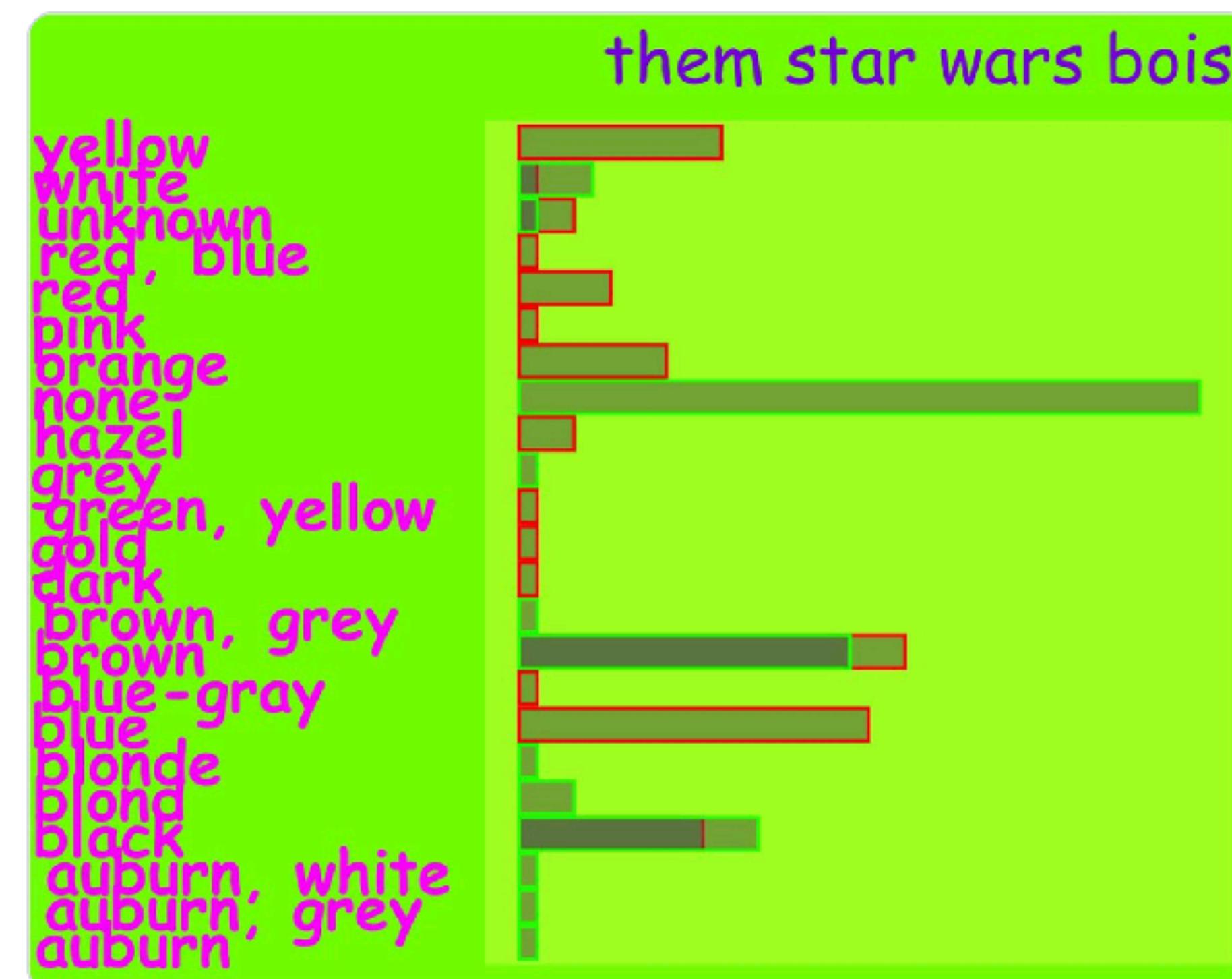


# ugly ggplot2 themes



Drew Steen  
@biogeobiochem

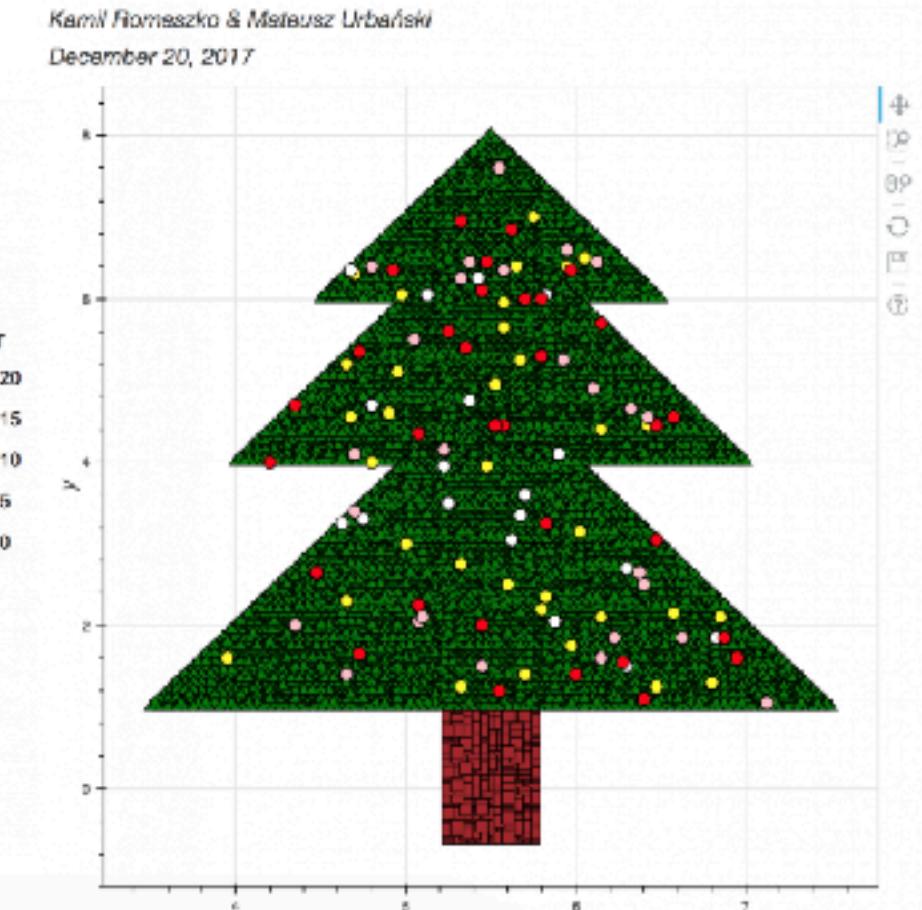
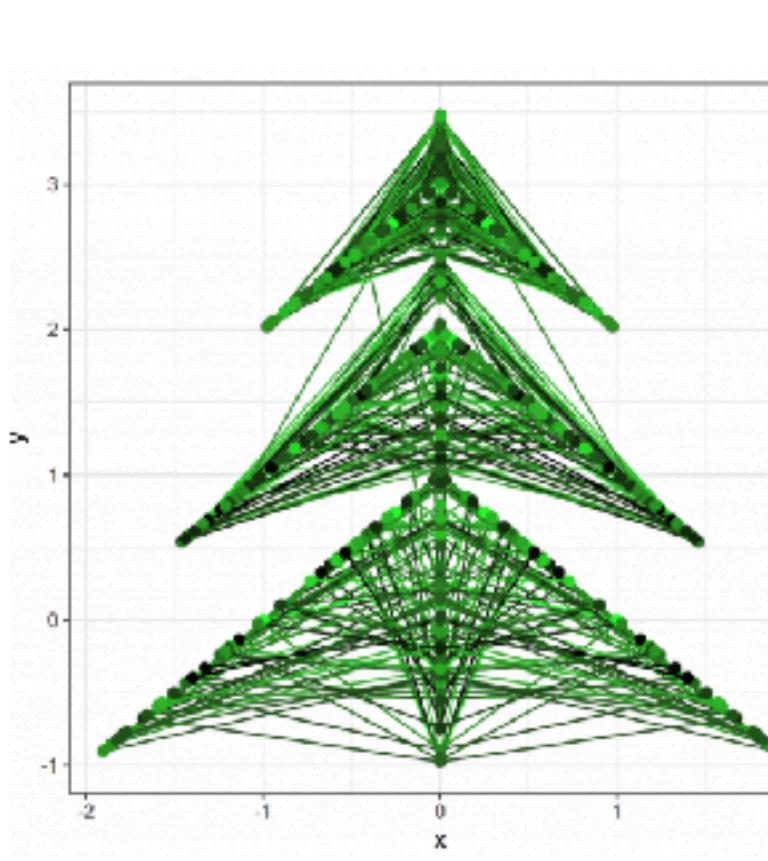
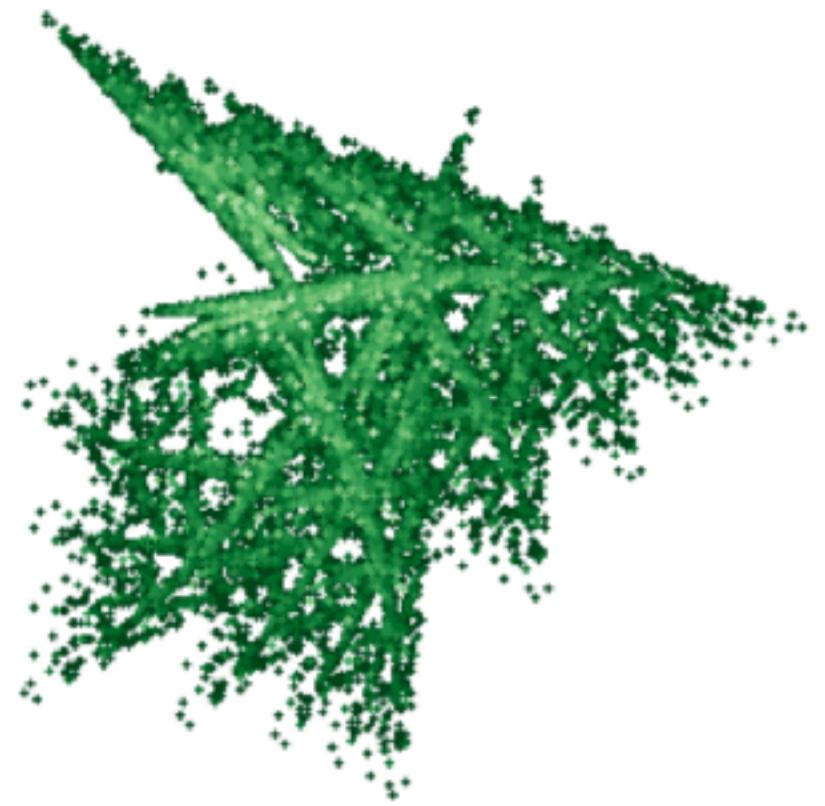
First up, big congratulations to [@UTK\\_EPS](#) Ph.D. student Rihanna Moore, who won by popular vote with this monstrosity



1:29 PM · Sep 13, 2019 · Twitter Web App



# draw a christmas tree



smarterpoland.pl/index.php/2017/12/christmas-trees



# 4 all

welcoming + inclusive practices for teaching R



[rstd.io/r4all-cardiff](https://rstd.io/r4all-cardiff)

minebocek 

mine-cetinkaya-rundel 

cetinkaya.mine@gmail.com 



Illustrations by Desirée De Leon, @dcossyle