

All About Tibbles

R-Ladies MeetUp

September 19, 2017



Lightning Talks

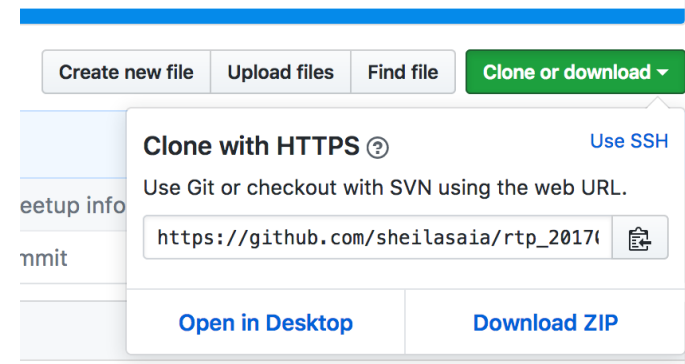
Yu Chen - How I met R

Workshop Set-Up

Find all up-to-date materials here:

https://github.com/sheilasaia/rtp_20170919_tibbles/

To get them 'clone' or 'download' repository to your computer



Load the libraries you'll need (see the R script)
---- 2. set up ----

Once upon a time...



sheilasaia 11:17 AM

Sent from **R-Ladies RTP**

Hi Elaine and Mine!

I was thinking it would be cool to have a meetup about tibbles. I've been hearing a lot about them and am still a little fuzzy on what they are and why they're useful. I was also thinking it would be interesting to do something with the new sf package. There's also a `geom_sf()` for plotting spatial data in R! Exciting stuff.

Hope you both are well and enjoying your summers!

Sheila

#learningtogether

Objectives

By the end of this workshop you will be able to:

describe different data structures in R

explain some differences between data frames and tibbles

Introductions

What is your name?

What is your favorite thing to do in R/what do you dream of doing in R?

What data structures are used in R?

(2 min think on your own, 3 min share with group)

Move to R script

---- 3. basic data structures in R ----

What do you know about tibbles?

(2 min think on your own, 3 min share with group)

Tidyverse & Tibbles

[Intro](#)[Reference](#)[Articles ▾](#)[News](#)

Overview

A **tibble**, or `tbl_df`, is a modern reimagining of the `data.frame`, keeping what time has proven to be effective, and throwing out what is not. Tibbles are `data.frames` that are lazy and surly: they do less (i.e. they don't change variable names or types, and don't do partial matching) and complain more (e.g. when a variable does not exist). This forces you to confront problems earlier, typically leading to cleaner, more expressive code. Tibbles also have an enhanced `print method()` which makes them easier to use with large datasets containing complex objects.

If you are new to tibbles, the best place to start is the [tibbles](#) in R for data science.

Links

Download from CRAN at
<https://cran.r-project.org/package=tibble>

Browse source code at
<https://github.com/tidyverse/tibble>

Report a bug at
<https://github.com/tidyverse/tibble/issues>

Move to R script

---- 4. all about tibbles (as compared to data frames) ----

Exercise

---- 4.4 exercise ----

Let's work through this exercise together:

<http://r4ds.had.co.nz/tibbles.html#exercises-18>

Objectives

I hope you can now:

describe different data structures in R

explain some differences between data frames and tibbles

****I'm not advocating for/against the use of tibbles (I almost exclusively data frames) but now you know more and can choose which to use based on what you want to do.****

Announcements

Next R-Ladies RTP meetup is **October 26, 2017**

rstudio::conf in February 2018 (San Diego, CA)

<https://www.rstudio.com/conference/>



Contact

If you have any follow up questions or you find other interesting tibble info, let me know!

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Answers

(don't look at the slides below unless you really have to)

Also see exercise answers in
'tibbles_exercise_answers_20170919.R'

What data structures are used in R?

vector – fixed size, same type of data, no nested structure

list – unfixed size, different data types, nested structure is ok

matrix – 2D vector

array – greater than 1D vector, 2D array is almost = a matrix

data frame – table, each column holds the same data type

tibble – like a data frame but with some differences...

(2 min think on your own, 3 min share with group)

What do you know about tibbles?

- part of the tidyverse
- similar to data frames
- lazy & surly...more on this soon

(2 min think on your own, 3 min share with group)