R4DS

Cohort 4

Wed 6:00 – 7:00 US Central

Twitter: @Rspjut

5-MINUTE ICE BREAKER

What part of the world do you live in?

What industry do you work in? What are you studying?

Experience with other programming languages?

What's playing on your iPod/Pandora/Spotify right now?

AGENDA

- 5-Minute Ice breaker
- Housekeeping
- Getting Help
- Content Intro
- RStudio IDE
- Packages
- Draw a Plot

HOUSEKEEPING

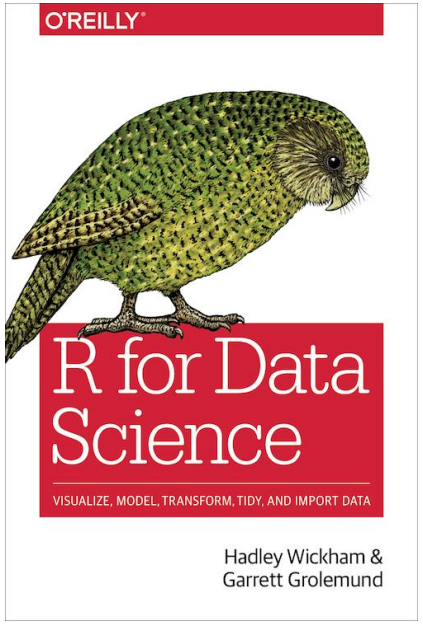
- Start with a 5 minute ice breaker to allow anyone to join late.
- Video camera is optional, but encouraged.
- We're recording the session and it will be posted on the Slack.
- Make sure you have a Slack account. Most announcements will be under # book_club-r_for_data_science.
- We'll probably fill up the full hour each time, but we won't go over.
- I purposely err on the side of going fast. Slowing me down does not hurt my feelings.
- Take time to learn the theory (Grammar of Graphics, Tidy Data whitepaper, Relational Database theory, etc.).
- Please do the chapter exercises. Second-best learning opportunity!
- Please plan on teaching one of the lessons. Best learning opportunity!

GETTING HELP

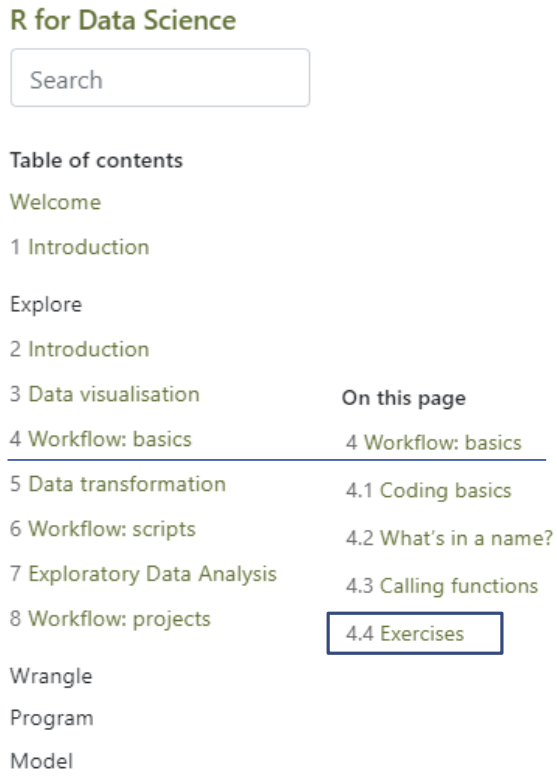
- Ask questions during our call
- Google
- Stack Overflow
- Slack (“a less grouchy version of Stack Overflow”)
- Office Hours r4ds.io/calendar
- Twitter #rstats
- r4ds answer keys: Jeff Arnold (preferred) or Bryan Shalloway (also good)
- Cheatsheets

CONTENT INTRO

- R for Data Science (r4ds)
- r4ds.had.co.nz/index.html



- Table of Contents

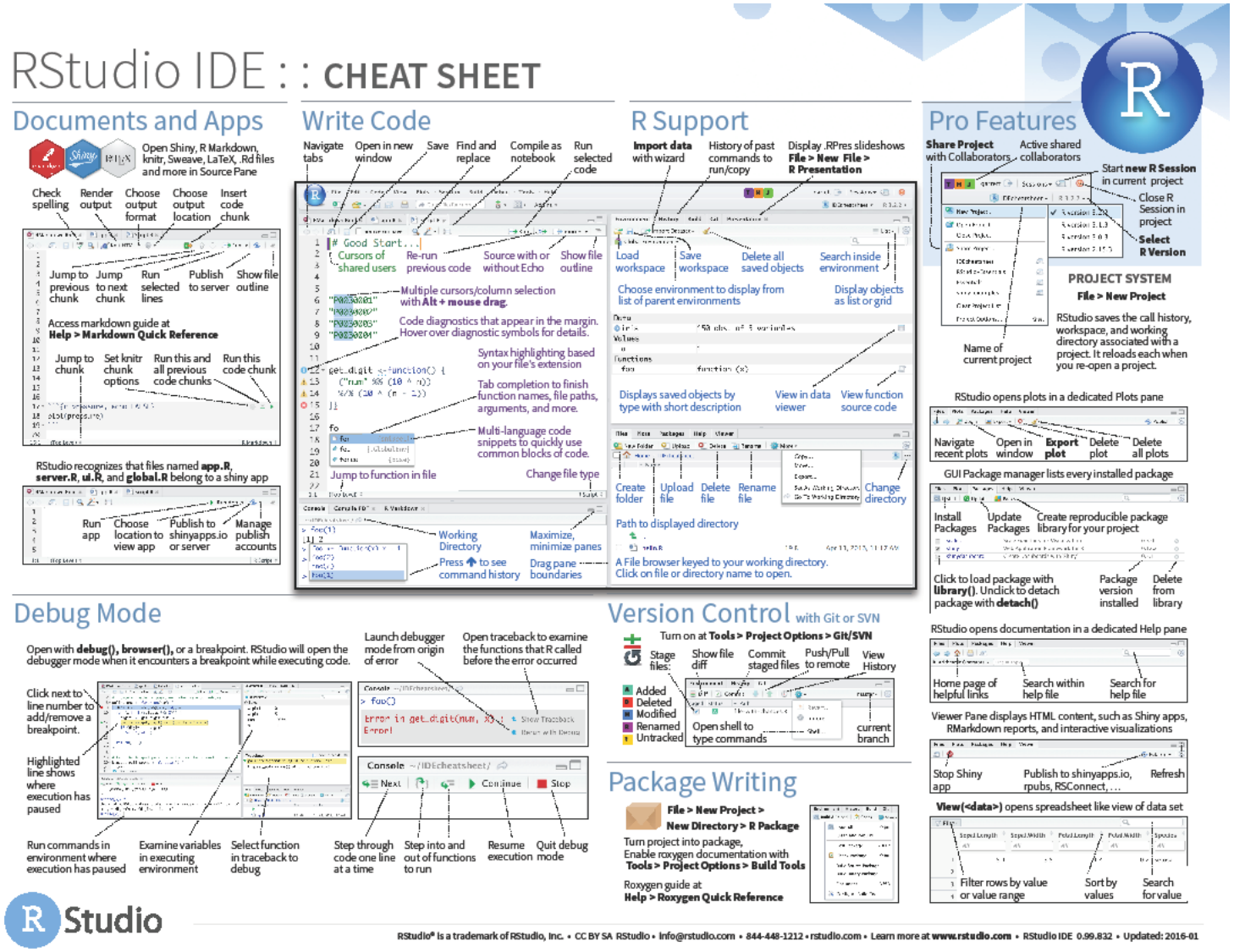


You'll learn how to get your data into R, get it into the most useful structure, transform it, visualise it and model it. In this book, you will find a practicum of skills for data science. Just as a chemist learns how to clean test tubes and stock a lab, you'll learn how to clean data and draw plots—and many other things besides.

-Wickham and Grolemund, Welcome Page

RSTUDIO IDE

- R vs Rstudio
- Installing R/RStudio
- IDE Tour
- Rstudio IDE Cheatsheet
- Other Cheatsheets



PACKAGES

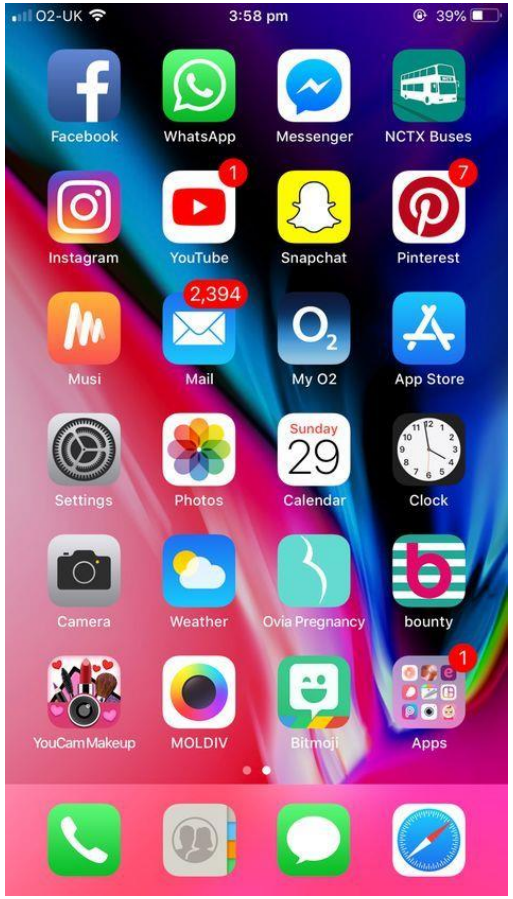
- What are packages?
- Installing packages
- Loading packages

Packages are the fundamental units of reproducible R code. They include reusable functions, the documentation that describes how to use them, and sample data.

- Wickham and Grolemund, Section 1.4

Packages

Base R



DRAW A PLOT

The following code draws a graph of sample data that comes with the Tidyverse package.

To make this work, you need to:

Action	Frequency	Code
Install the Tidyverse package	One-time action	install.packages("tidyverse")
Load the Tidyverse package	Each new R session	library(tidyverse)

Type this into the Source pane. Case/capitalization matters!

```
ggplot(data = mpg, mapping = aes(x = displ, y = hwy)) + geom_point(mapping = aes(color = class)) + geom_smooth()
```

NEXT WEEK…

- Chapter 3: Data Visualization
- Read “The Layered Grammar of Graphics”
- Look over the mpg data

```
library(tidyverse)
mpg
?mpg
```


RStudio