Welcome to Intro to

and

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Workshop materials

OPTION 1

RStudio Cloud

bit.ly/shiny-rmd-cloud

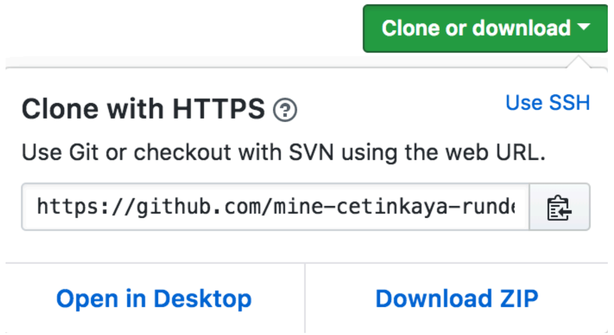
log in and sit tight

OPTION 2

RStudio

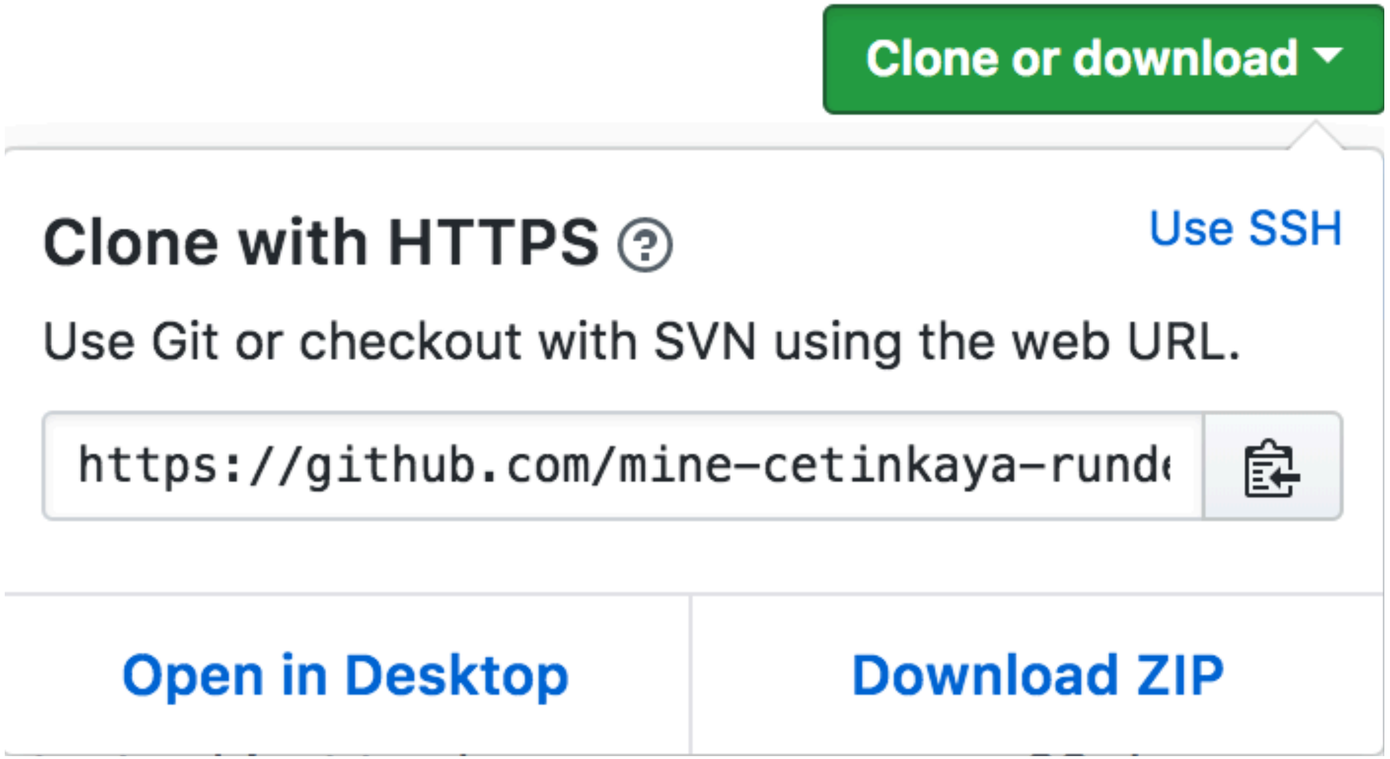
bit.ly/shiny-rmd-repo

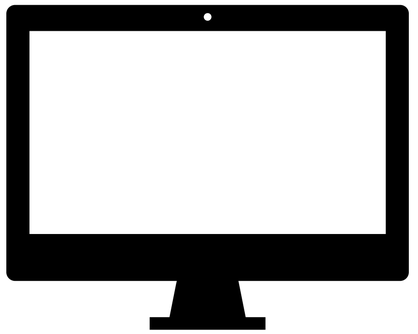
1. clone or download



2. launch `rstudioconf-2018-intro-shiny-rmarkdown.Rproj`

rmarkdown


Clone or download
Clone with HTTPS
Use SSH
Use Git or checkout with SVN using the web URL.
https://github.com/mine-cetinkaya-rund
Open in Desktop
Download ZIP



DEMO

rmarkdown

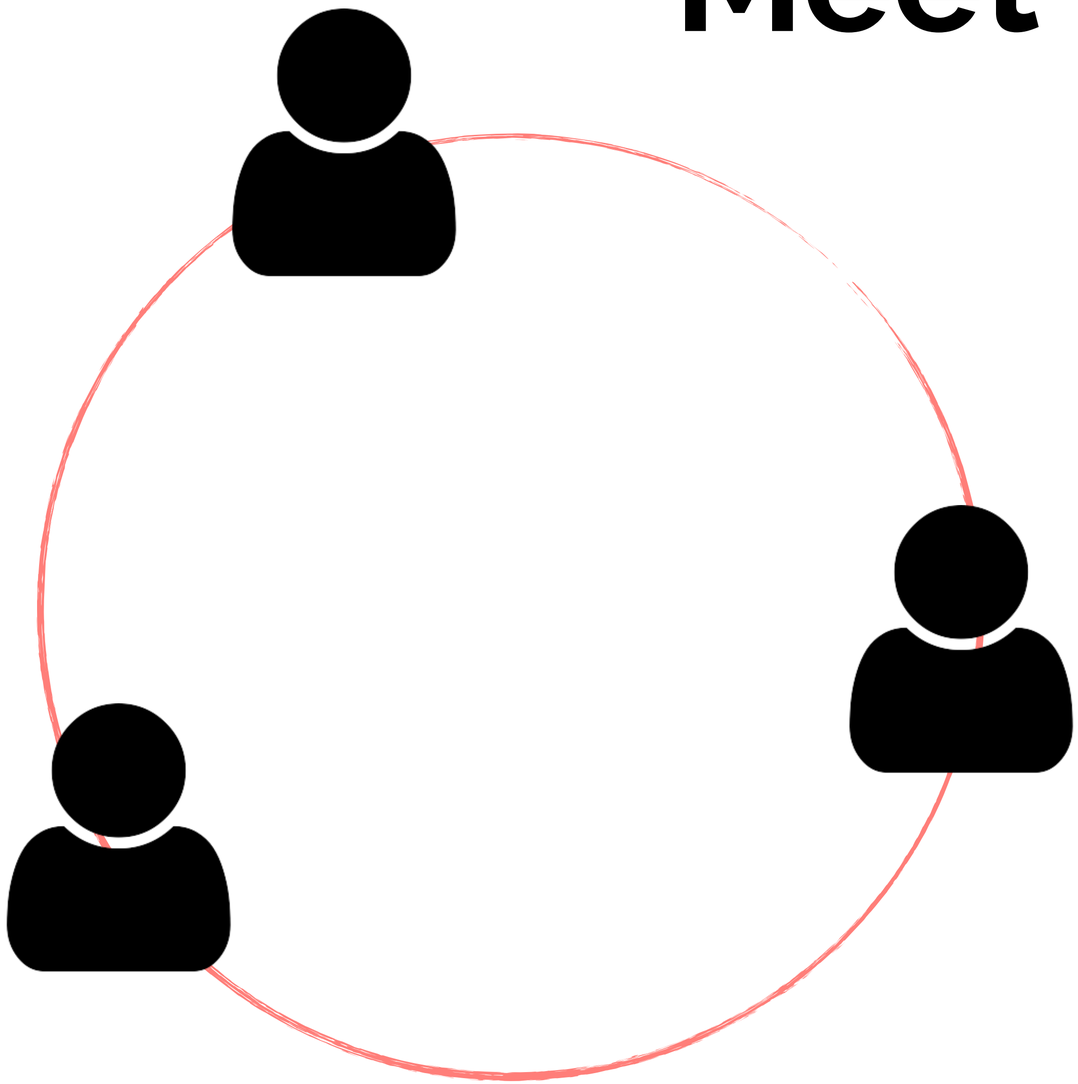
Meet & greet

Mine Çetinkaya-Rundel

Amanda Gadrow

Gabriela De Quieroz

Meet & greet



Overview

- Day 1: (Mostly) R Markdown
- Day 2: (Mostly) Shiny
- Lots of info!
- Lots of “your turn” breaks
- Additional time for Q&A at the end of each day

Outline - Day 1

- 9am - 10:30am - Getting started with Markdown
- 10:30am - 11am - Morning break ☕
- 11am - 12:30pm - Putting the R in R Markdown
- 12:30pm -1:30pm - Lunch 🍴
- 1:30pm - 3pm - Upping your R Markdown game
- 3pm - 3:30pm - Afternoon break ☕
- 3:30pm - 5pm - Dashboarding + Q&A

Getting started with R Markdown

What is Markdown?

- Lightweight markup language with plain text formatting syntax
- Designed so that it can be converted to HTML (and many other formats)

README.md

```
# rstudioconf-2018-intro-shiny-rmarkdown

Materials for the "Intro to Shiny and R Markdown" 2-day workshop at [rstudio::conf 2018](https://www.rstudio.com/conference/).

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## Outline

### Day 1: January 31

#### :computer: 09:00 - 10:30: Session 1 - Introduction to R Markdown
  - Welcome and motivation
  - Demo: R, Markdown, knitr, Pandoc/YAML, Parameters, Templates, Tables, htmlwidgets, rpubs (and maybe shiny/shinyapps.io)
  - Composing your prose (markdown)
    - Text, headers, lists, hyperlinks
    - Math text
    - Images
    - Tables
    - Bibliographies and citations
    - The Markdown Quick Reference
```

README

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Outline

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💻 09:00 - 10:30: Session 1 - Introduction to R Markdown

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  - Images
  - Tables
  - Bibliographies and citations
  - The Markdown Quick Reference

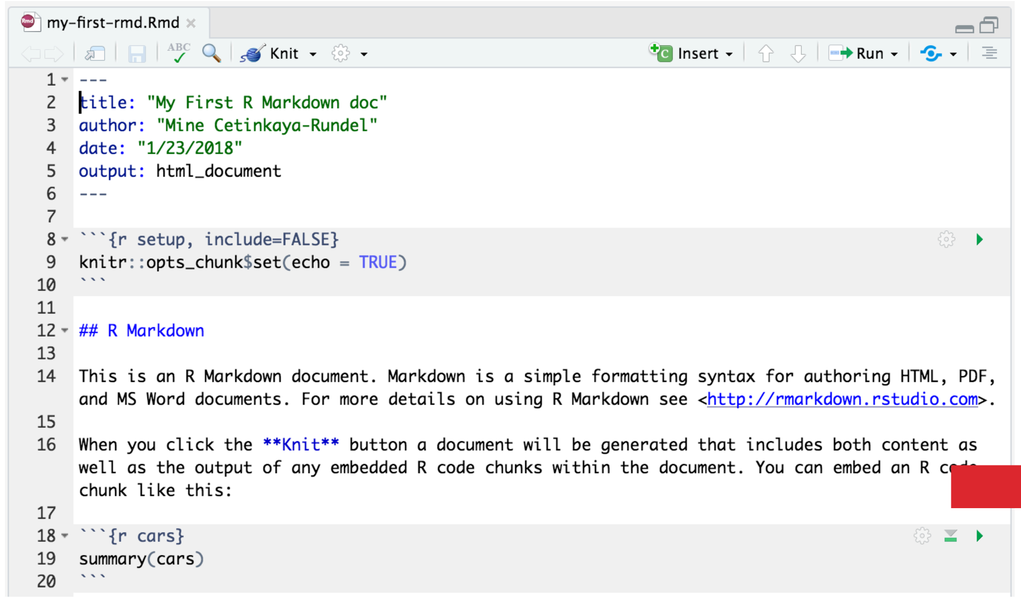
> A Markdown-formatted document should be publishable as-is, as plain text, without looking like it's been marked up with tags or formatting instructions.
>
> *- John Gruber*

Markdown Philosophy. https://daringfireball.net/projects/markdown/syntax#philosophy.

What is R Markdown?

- Markdown + R
- Text + R code (in chunks) gets converted to text + R code + R output in HTML (and many other formats)

my-first-rmd.Rmd



my-first-rmd.html

My First R Markdown doc

Mine Cetinkaya-Rundel

1/23/2018

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed           dist
##  Min.   : 4.0   Min.   :  2.00
##  1st Qu.:12.0   1st Qu.: 26.00
##  Median :15.0   Median : 36.00
##  Mean   :15.4   Mean   : 42.98
##  3rd Qu.:19.0   3rd Qu.: 56.00
##  Max.   :25.0   Max.   :120.00
```

Your turn

- In RStudio, File ➡ New File ➡ R Markdown…
- Title: My first R Markdown doc
- Author: [INSERT NAME]
- OK
- Knit the document, saving the file as `my-first-rmd.Rmd`

Tips

- Hitting knit is equivalent to running `rmarkdown::render()`.

- When you create an Rmd document, it will first ask you to give it a title, that is the **title** of the document. Use whatever capitalization you prefer in titles, and you can edit it later too.

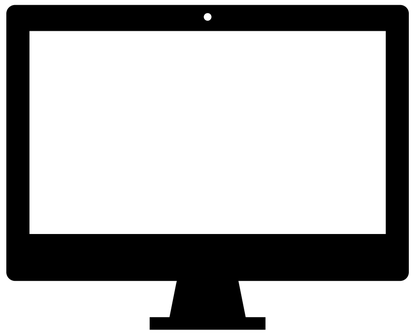
- When you go to knit the file, it will ask for another name. This is the **filename**. You might want to keep it no-spaces-no-capitals.

What's in an Rmd?

Three types of content:

- An (optional) YAML header surrounded by `---`s
- R code chunks surrounded by ```s
- Text with markdown formatting

What does YAML mean?



DEMO

Demo recap

- R, Markdown
- knitr
- Pandoc/YAML
- Parameters
- Templates
- Tables
- htmlwidgets
- RPubs