Websites with R Markdown and Radix

Daniel Anderson
Week 8, Class 1

Agenda

- Introduce Radix
- Deployment

Agenda

- Introduce Radix
- Deployment

Learning objectives

- Get at least a basic site deployed

Announcements

- For this week's lab, we'll participate in #tidytuesday!
    - Note - I have no idea what the dataset will be
- Goal for lab
    - Play with unfamiliar data and produce something you're proud of
    - Should be highly collaborative

Radix

https://rstudio.github.io/radix/

Disclaimer and assumptions

- This is a very basic (and probably fast) intro
  - Radix can do a lot that we won't get to
- I assume most of you have never created or deployed a website before
  - If you have, some of this might be slow but you can help others
- This "lecture" will be highly interactive

Please follow along

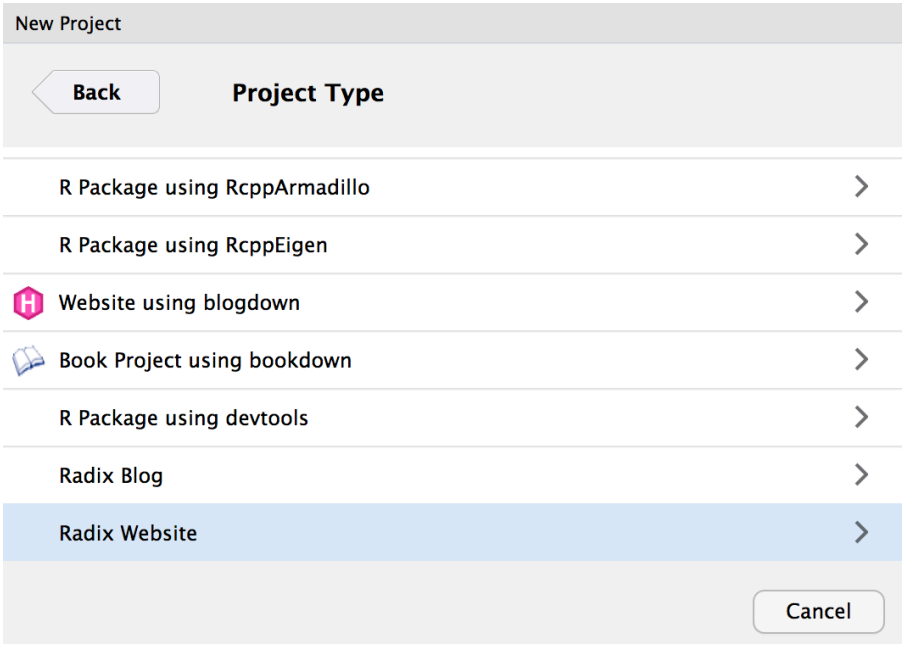
```
install.packages("radix")
```

- Go to GitHub and create a repo to store your website (which you'll also use for deployment)

Back to RStudio

Don't clone your repo yet!

Create new project



The steps

- Create a new RStudio Project
- Select Radix blog
- Use gitkraken (or command line if you're comfortable with that) to initiate a repo locally and link it with your remote
- Commit/push
- Change GH settings for deployment

(demo)

Author a new article

- `radix::create_post()`
- Create another one!

Author a new article

- `radix::create_post()`
- Create another one!

Listings

Make sure your index file as

```
---
listing: posts
---
```

- Note that galleries are also possible

Categories

- You make up the category names. Tag posts with those categories, and they will be linkable

```
---
categories:
  - dataviz
  - class
---
```

Navigation

All controlled with `_site.yml`

- Let's add a github log that links to our repo

Navigation

All controlled with `_site.yml`

- Let's add a github log that links to our repo

```
---
navbar:
  right:
    - text: "Home"
      href: index.html
    - text: "About"
      href: about.html
    - icon: fa fa-github
      href: https://github.com/datalorax/class-site-example
---
```

Create drop-down menus

```
---
navbar:
  left:
    - text: "Labs"
      menu:
        - text: "Getting Started with R"
          href: "lab1.html"
        - text: "Visualizing Distributions"
          href: "lab2.html"
  right:
    - text: "Home"
      href: index.html
    - text: "About"
      href: about.html
    - icon: fa fa-github
      href: https://github.com/datalorax/class-site-example
---
```

Base URL

Once your site is deployed (or you know the link it will be deployed to), change the `base_url` in the `_site.yml`

- Gives some nice sharing features (twitter cards)
- Allows you to use citations

Drafts

If you want to work on a post for a while without it being included in your website, use `draft = TRUE`

```
radix::create_post("My new post", draft = TRUE)
```

```
---
title: "My work on Lab 3"
description: |
  This lab was hard!
draft: true
---
```

Figures

Change figure options with chunk options

- `layout = "l-body"` (default)
- `layout = "l-body-outset"`
- `layout = "l-page"`
- `layout = "l-screen"`
  - `layout = "l-screen-inset"`
  - `layout = "l-screen-inset shaded"`

Let's go try!

Additional figure options

- Rather than using `![]()`, you can use `knitr::include_graphics()` to have the same options.
- Use `fig.cap` in chunk options to give nice figure captions.
- Note these options should work for tables as well

Side notes

```
<aside>
This is some text that will appear in the margin - similar to Tufte's style. It is
</aside>
```

Side notes

```
<aside>
This is some text that will appear in the margin - similar to Tufte's style. It is
</aside>
```

You can also use this to show small plots

```
<aside>

ggplot(mtcars, aes(mpg)) +
  geom_histogram() +
  labs(title = "Distribution of Miles Per Gallon")

</aside>
```

Customizing the theme

- Create a `style.css` file (or whatevs)
- Modify `_site.yml` to

```
output:
  radix::radix_article:
    css: style.css
```

- Start with default CSS, and modify small elements

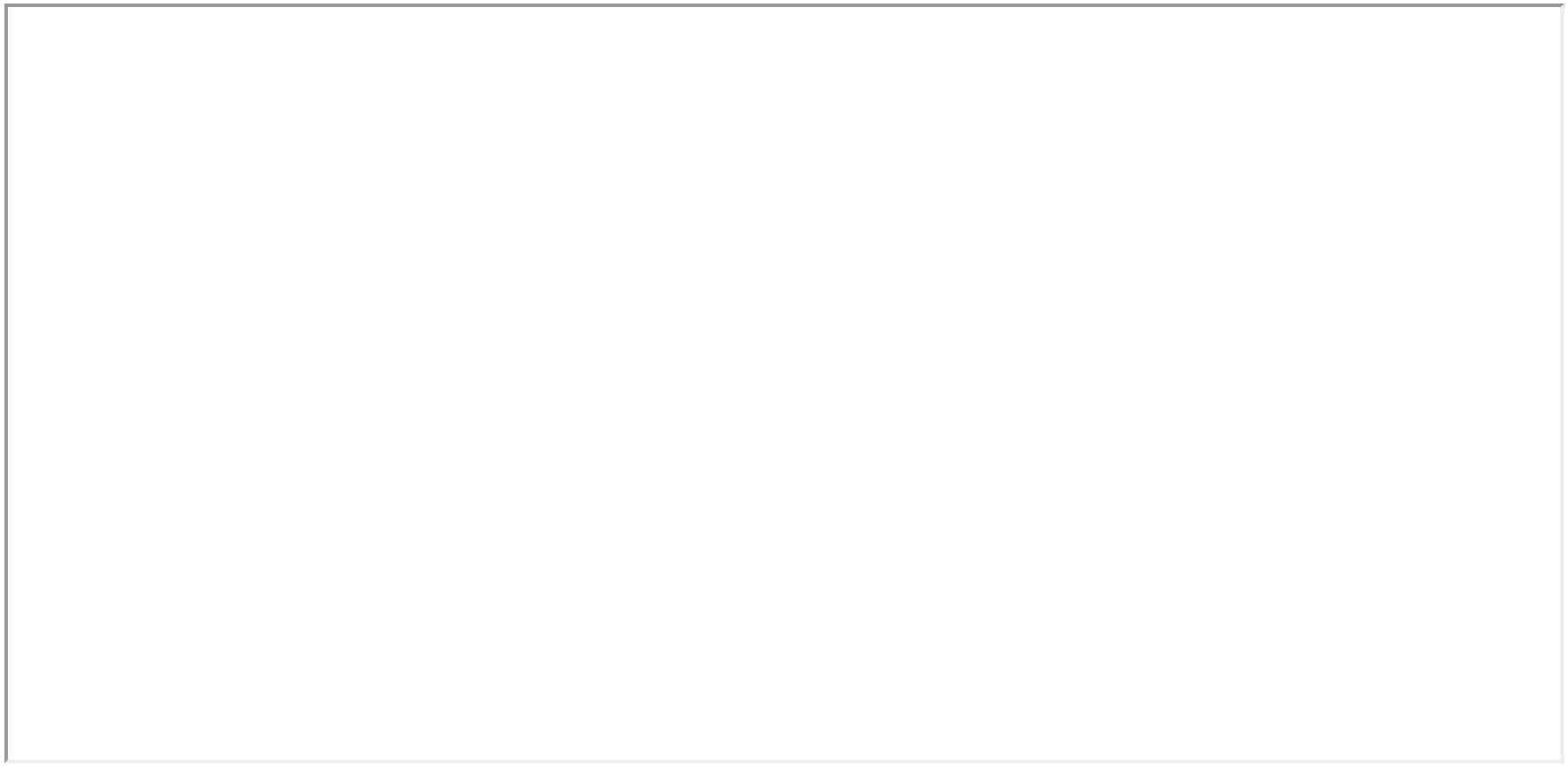
```
.radix-site-nav {
  color: rgba(255, 255, 255, 0.8);
  background-color: #455a64;
  font-size: 15px;
  font-weight: 300;
}
```

becomes

```
.radix-site-nav {
  color: rgba(255, 255, 255, 0.8);
  background-color: #FF5FDD;
  font-size: 15px;
  font-weight: 300;
}
```

This can be fun!

Just be careful not to go too far



Equations

Use latex notation and it should "just work"

```
$$ \mu = \frac{1}{n}\sum_{i=0}^n{x_i} $$
```

becomes

$$\mu = \frac{1}{n}\sum_{i=0}^{n} x_i$$

Other features

- Table of Contents
- Appendices
- Citations
  - Both how to cite your article and bibliographies

Go forth and share your work!