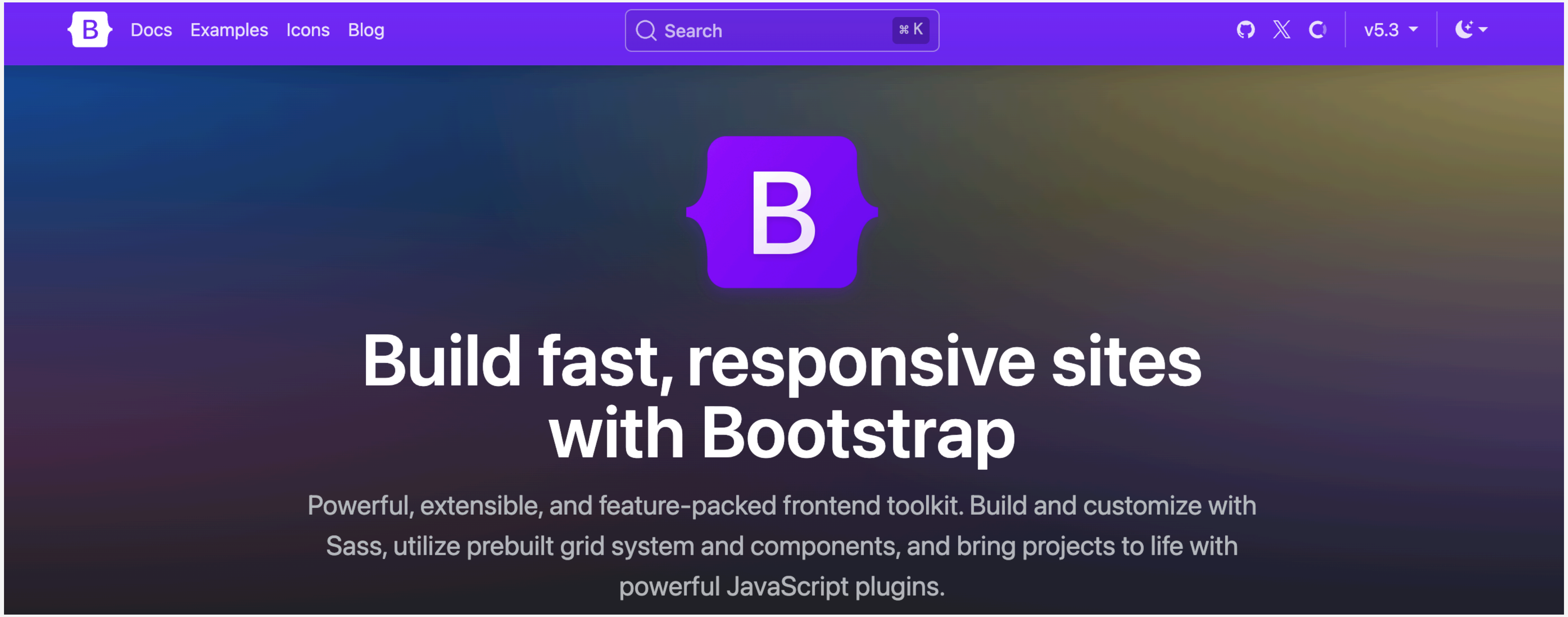
Customization and branding

Themes

Bootstrap

Quarto uses the popular **Bootstrap** library for HTML structure and CSS styles.



Build fast, responsive sites with Bootstrap

Powerful, extensible, and feature-packed frontend toolkit. Build and customize with Sass, utilize prebuilt grid system and components, and bring projects to life with powerful JavaScript plugins.

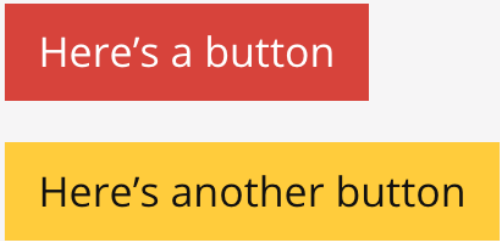
Bootstrap

You can use **Bootstrap components and classes** for special styling

```
[Here's a button](thing.pdf){.btn .btn-primary role="button"}

[Here's another button](thing.pdf){.btn .btn-warning role="button"}
```

↓



Here’s a button

Here’s another button

Bootswatch themes

Quarto includes 25 themes from **Bootswatch**:

- default
- cerulean
- cosmo
- cyborg
- darkly
- flatly
- journal
- litera
- lumen
- lux
- materia
- minty
- morph
- pulse
- quartz
- sandstone
- simplex
- sketchy
- slate
- solar
- spacelab
- superhero
- united
- vapor
- yeti
- zephyr

Changing themes

Specify the custom theme under `theme` in the YAML settings:

_quarto.yml

```yaml
format:
  html:
    theme:
      - zephyr
```

Your turn

1. Go to **bootswatch.com** and explore the different themes there (use the top navigation bar).
2. Preview your site, then try changing different Bootswatch themes in `_quarto.yml`.

07:00

CSS and Sass

Theme options

Sometimes we want to change theme settings though

Many common basic options: https://quarto.org/docs/output-formats/html-themes.html#basic-options

Total control with CSS

Crash course in CSS

HTML elements can have IDs and classes

HTML elements can be nested inside each other

You can target HTML elements with different degrees of specificity:

- All <h3> headings
- H3 headings with the class `neato`
- <a> links that are inside a div with the id `quarto-sidebar`

Browser inpsector

Explore and edit any HTML and CSS right from your browser.

Sass: CSS, but fancier

variables

rules that use variables

Combining CSS and themes

asdf

Your turn

Create a SCSS file and make a bunch of rules

Branding

CSS is a little inconvenient

- Doesn’t play well across HTML outputs - HTML, slides, and dashboards all use slighlty different underlying HTML
- No easy way to reuse the colors and typography from your CSS customizations in R and Python plots or in PDF documents
- Hard to share consistent, resusable themes with others in your organization (or with the world)

Style guides

Organizations and projects generally have style guides for consistency

Urban Institute

This course! See the colophon

BRAND YML

Unified branding with a simple YAML file

Create reports, apps, dashboards, plots and more that match your company’s brand guidelines with a single `_brand.yml` file.

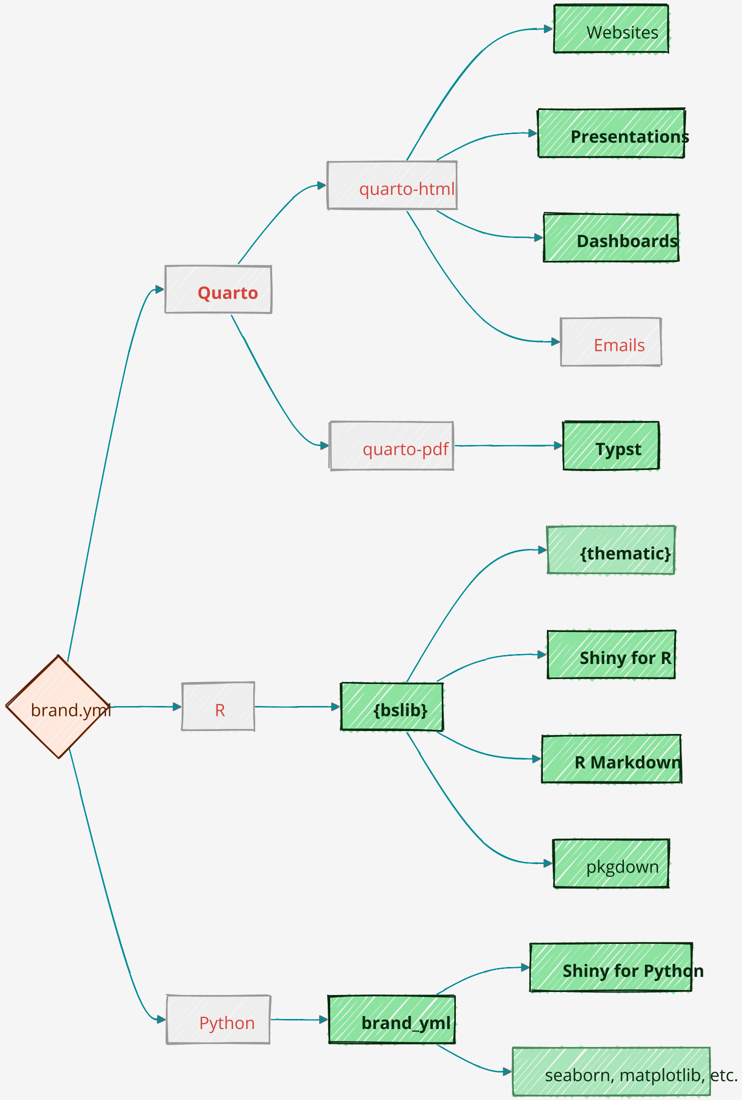
Learn more: **https://posit-dev.github.io/brand-yml/**

Branding can be frustrating

But brand.yml makes it easier

1. Define branding in a single `_brand.yml` file.
2. Apply that branding across almost all Quarto formats.

`brand.yml` also works with Shiny!



Learn more: **https://posit-dev.github.io/brand-yml/**

brand.yml elements

- `meta`: Identifying information, name of the company, URLs, etc.
- `logo`: Files or links to the brand's logos.
- `color`: Colors in the brand's color palette.
- `typography`: Fonts for different elements.
- `defaults`: Additional context-specific settings.

_brand.yml structure

_brand.yml

```yaml
meta:
  name: World Happiness Report
  link:
    home: https://www.worldhappiness.report/

logo:
  images:
    icon:
      path: images/whr_logo.png
      alt: World Happiness Report icon.
  small: images/whr_logo.png

color:
  palette:
    dark-purple: "#93358c"
    light-purple: "#f8f6fb"
    teal: "#04afaf"
    dark-blue: "#086992"
```

How to apply brand.yml to Quarto

1. Define branding in `_brand.yml`.
2. Save in the root directory of your Quarto project.

Quarto will detect the presence of `_brand.yml` and automatically apply the brand to all documents of the supported formats in the project.

If your brand file has a different name or lives in a subdirectory, use the `brand` key.

my-document.qmd

```yaml
---
title: "World Happiness Report"
subtitle: "Happiness Trends and Contributing Factors (2011-2024)"
format: html
brand: org_theme.yml
---
```

Disable brand.yml

To turn off brand.yml for a document, use `brand: false`.

my-document.qmd

```yaml
---
title: "World Happiness Report"
subtitle: "Happiness Trends and Contributing Factors (2011-2024)"
format: html
brand: false
---
```

`brand` shortcode

Access some brand.yml values with a shortcode.

my_document.qmd

```
{{< brand color primary >}}
```

Learn more: **https://quarto.org/docs/authoring/brand.html#using-brand-values**

Your turn

05:00

What about plots?

Theme helpers

The quarto packages contain theme helpers that apply branding to plots.

R   Python

```r
library(quarto)

my_theme <- theme_brand_ggplot2("_brand.yml")
```

R: **https://quarto-dev.github.io/quarto-r/articles/theme-helpers.html**

Python: **https://github.com/quarto-dev/quarto-python?tab=readme-ov-file#theme-helpers**

Your turn

05:00

brand.yml packages

Access and apply specific brand elements.

R

Python

```r
library(brand.yml)

brand <- read_brand_yml("_brand.yml")

brand$color$primary
```

Templates

What’s next?

Course outline

- ✅ ~~Intro to Quarto~~
- ✅ ~~Creating basic websites~~
- ✅ ~~Advanced website features~~
- ✅ ~~Publishing~~
- ✅ ~~Customization and branding~~
- Interactivity

Break!