

Creating basic websites

Anatomy of a Quarto website

Content



Text



Images



Files

Content



Text



Images



Files

Style



CSS



HTML

Content



Text



Images



Files

Style



CSS

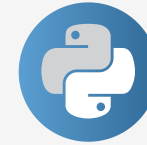


HTML

Code



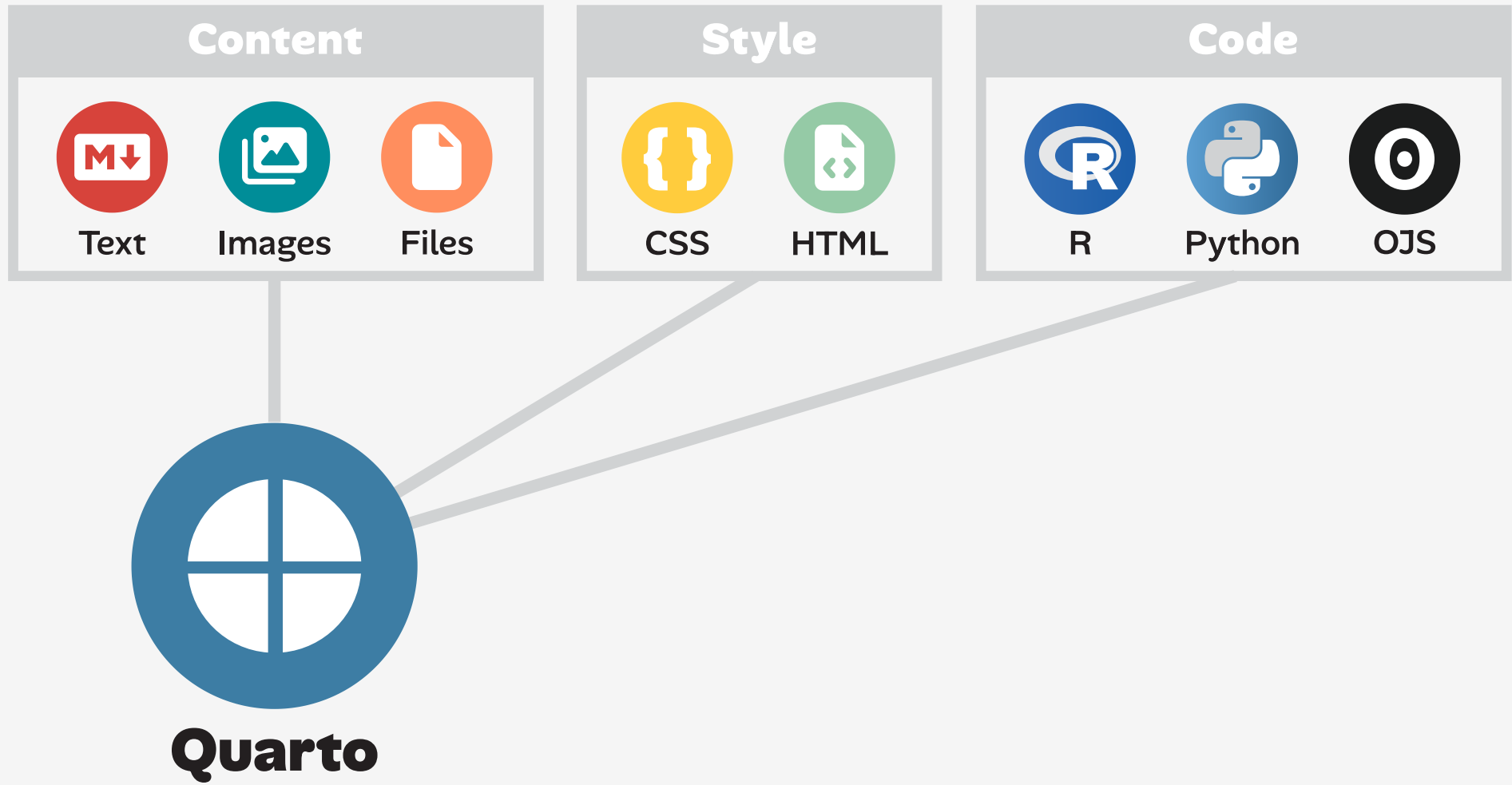
R

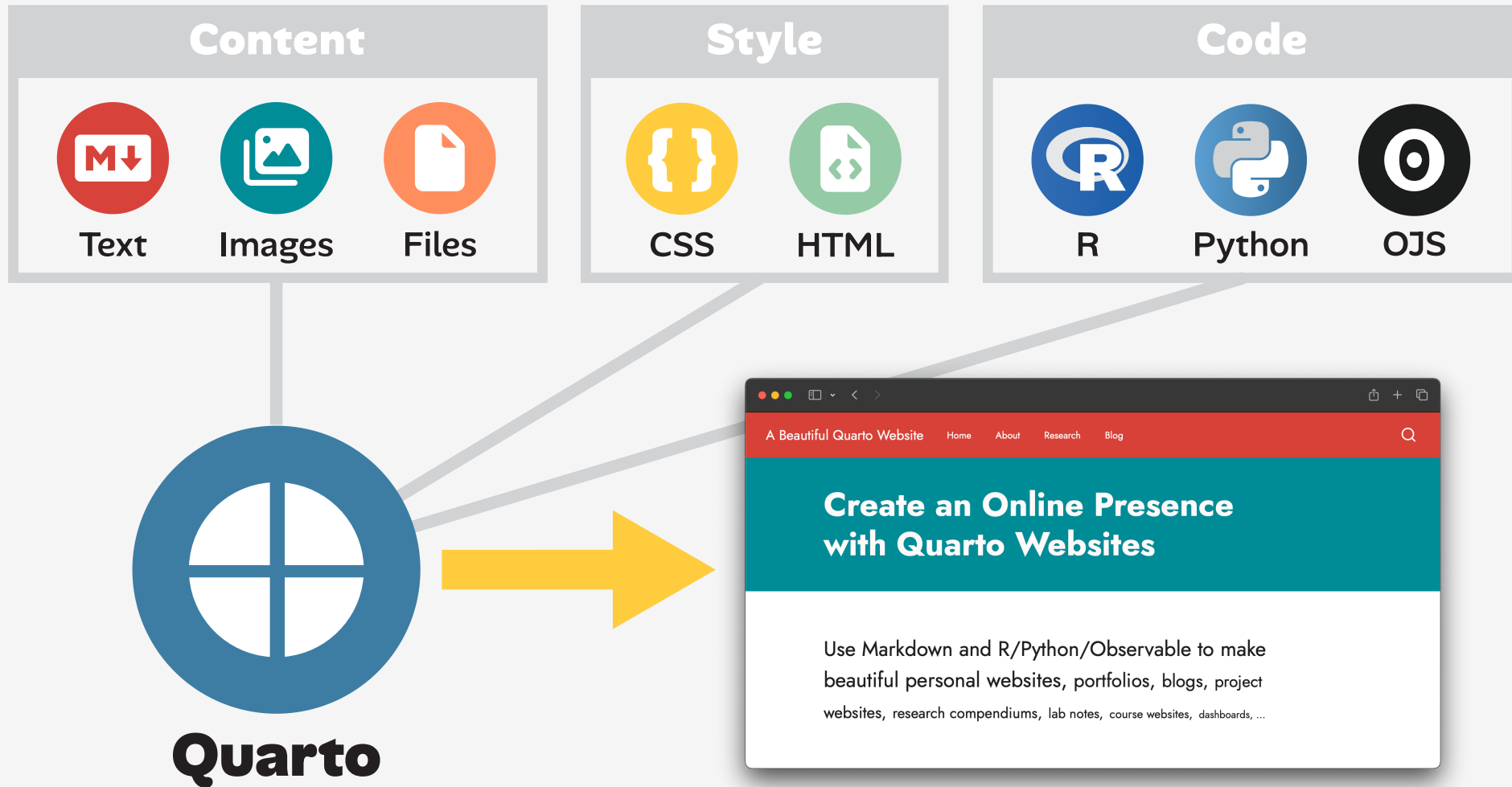


Python



OJS





Page Structure

index.qmd

```
1 ---
2 title: "My Cool Document"
3 format: html
4 ---
5
6 The `gapminder.csv` dataset contains
7
8 ```{r}
9 #| label: fig-neat-plot
10 library(tidyverse)
11 library(brand.yml)
12
13 df <- read_csv("data/gapminder.csv")
14
15 brand <- read_brand_yaml("_brand.yml")
16
17 ggplot(df, aes(x = gdpPercap, y = lifeExp))
18   geom_point(aes(size = pop, color = continent))
```

Webpages are like any other Quarto document:

1. Start with a YAML header
2. Can include code cells
3. Everything else is markdown content

Website Structure

A minimal website has two files: `index.qmd` and `_quarto.yml`

- `index.qmd`: Renders to `index.html`, your home page.
- `_quarto.yml`: Controls project and website properties.

When rendered you will get a `_site/` folder. This contains everything needed to serve the site.

_quarto.yml

_quarto.yml

```
1 project:
2   type: website
3
4 website:
5   title: "My site"
6   navbar:
7     left:
8       - href: index.qmd
9         text: Home
10
11 format:
12   html:
13     toc: true
```

Quarto projects

Websites are **Quarto projects**.

All Quarto projects include a `_quarto.yml` file.

This is a Quarto Project.

```
my-folder/  
├── _quarto.yml  
└── my-document.qmd
```

This is not.

```
my-folder/  
└── my-document.qmd
```

Quarto projects

A Quarto project is a *directory* that provides:

- A way to render all or some of the files in a directory with a single command (e.g. `quarto render myproject`).
- A way to share YAML configuration across multiple documents.

Quarto projects

Not all Quarto projects are websites (though they're typically website-like).

Terminal

```
> quarto create project
# ? Type
#   default
# > website
#   blog
#   manuscript
#   book
#   confluence
```

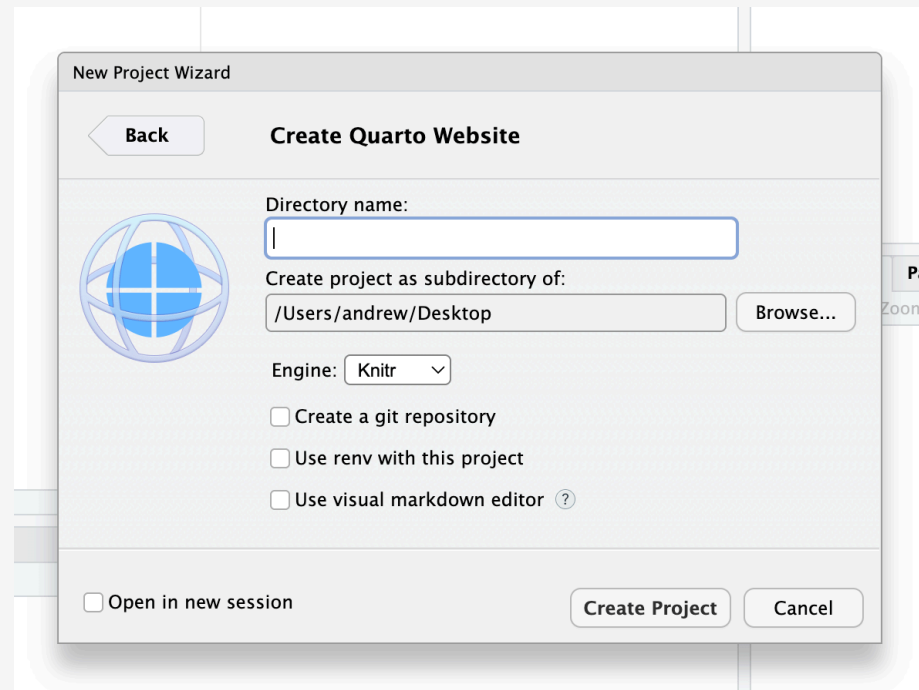
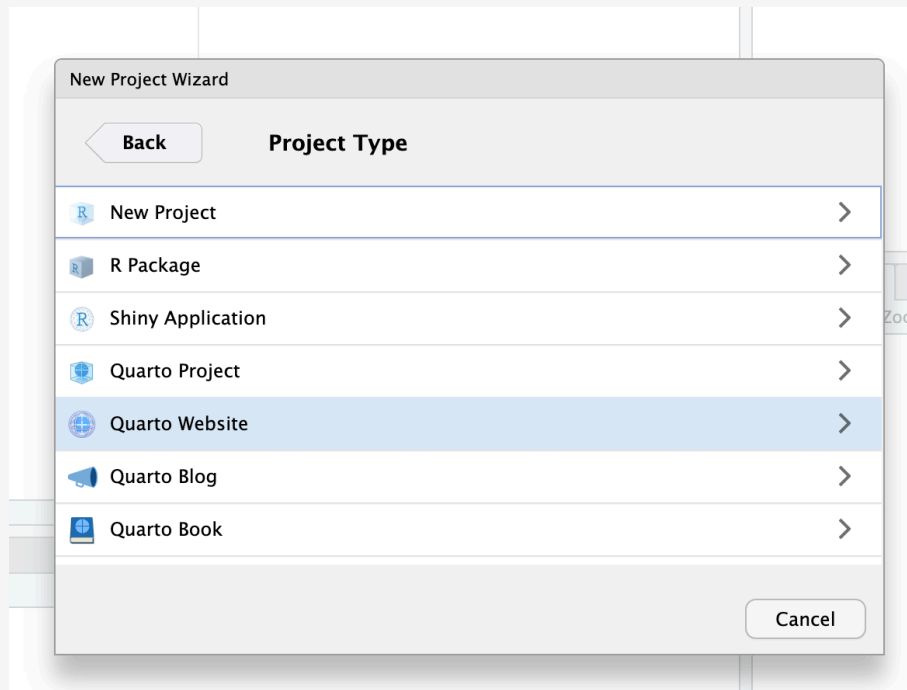
Creating a project skeleton

RStudio

Positron / VS Code

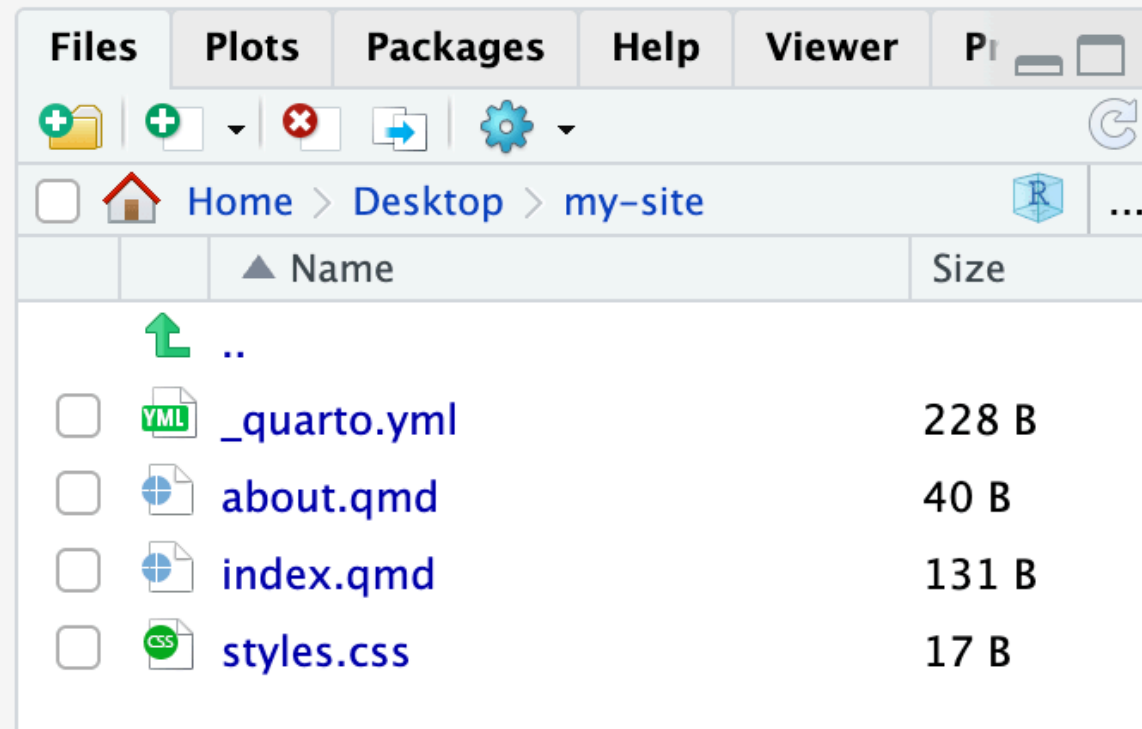
Terminal

File > New Project > New Directory > Quarto Website



Creating a project skeleton

```
my-site/  
├─ _quarto.yml  
├─ about.qmd  
├─ index.qmd  
├─ styles.css  
└─ testing.Rproj ← if made with RStudio
```



Your turn

1. Create a new website project somewhere on your computer.

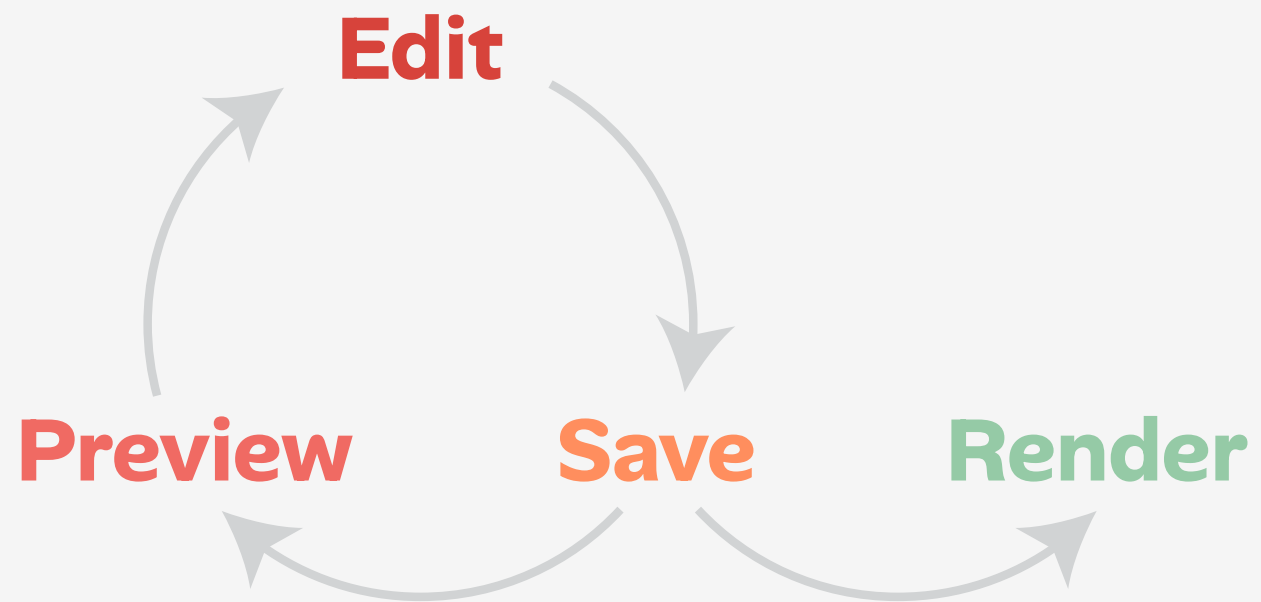
We'll use this as a playground throughout the course.

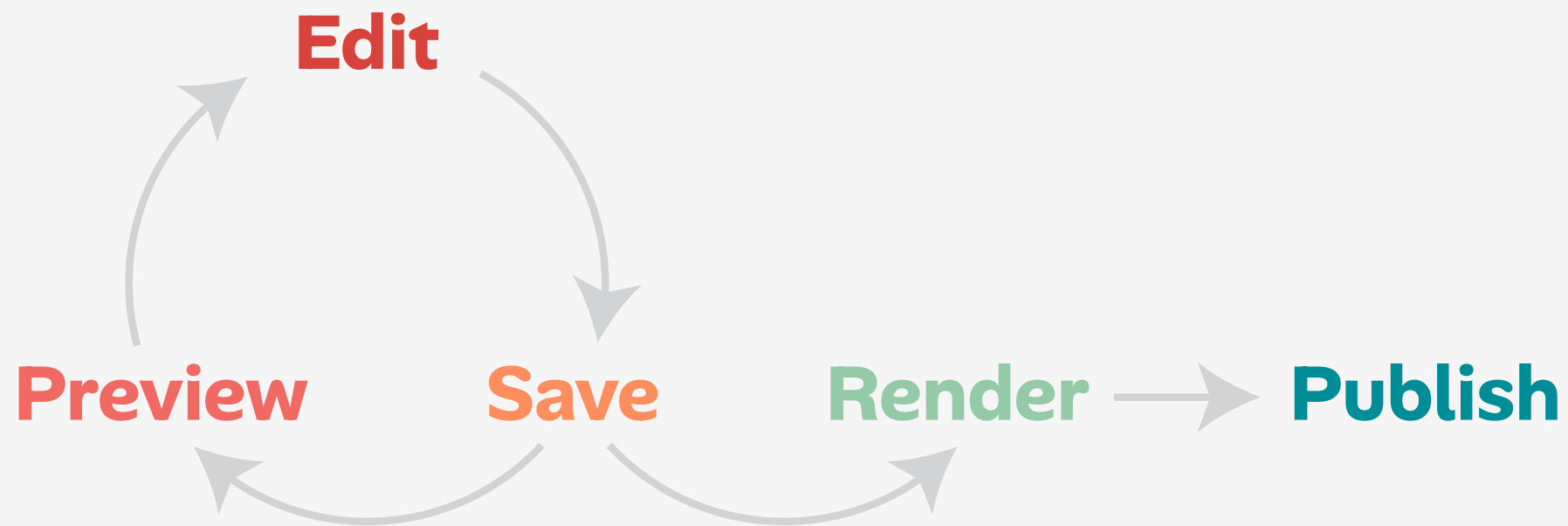
2. Open the project in RStudio and explore what the different files look like.

03:00

Workflow







Preview

RStudio

Positron / VS Code

Terminal

Current page

 Render




⌘ ↑ K



Ctrl + Shift + K

Whole site

Build > Render Website

 Render Website

Your turn

1. Open your playground website.
2. Open `index.qmd` and click Render/Preview.
3. Edit the `title` entry in `index.qmd`'s YAML metadata to something different and add a `subtitle` entry. Preview.
4. Add some text to `index.qmd`. Preview.
5. Add an R code chunk to `about.qmd`. Preview.

05:00

_quarto.yml

`_quarto.yml`

Configure all site-level settings with `_quarto.yml`:

```
_quarto.yml
1 project:
2   type: website
3
4 website:
5   title: "My site"
6   navbar:
7     left:
8       - href: index.qmd
9         text: Home
10
11 format:
12   html:
13     toc: true
```


Project settings

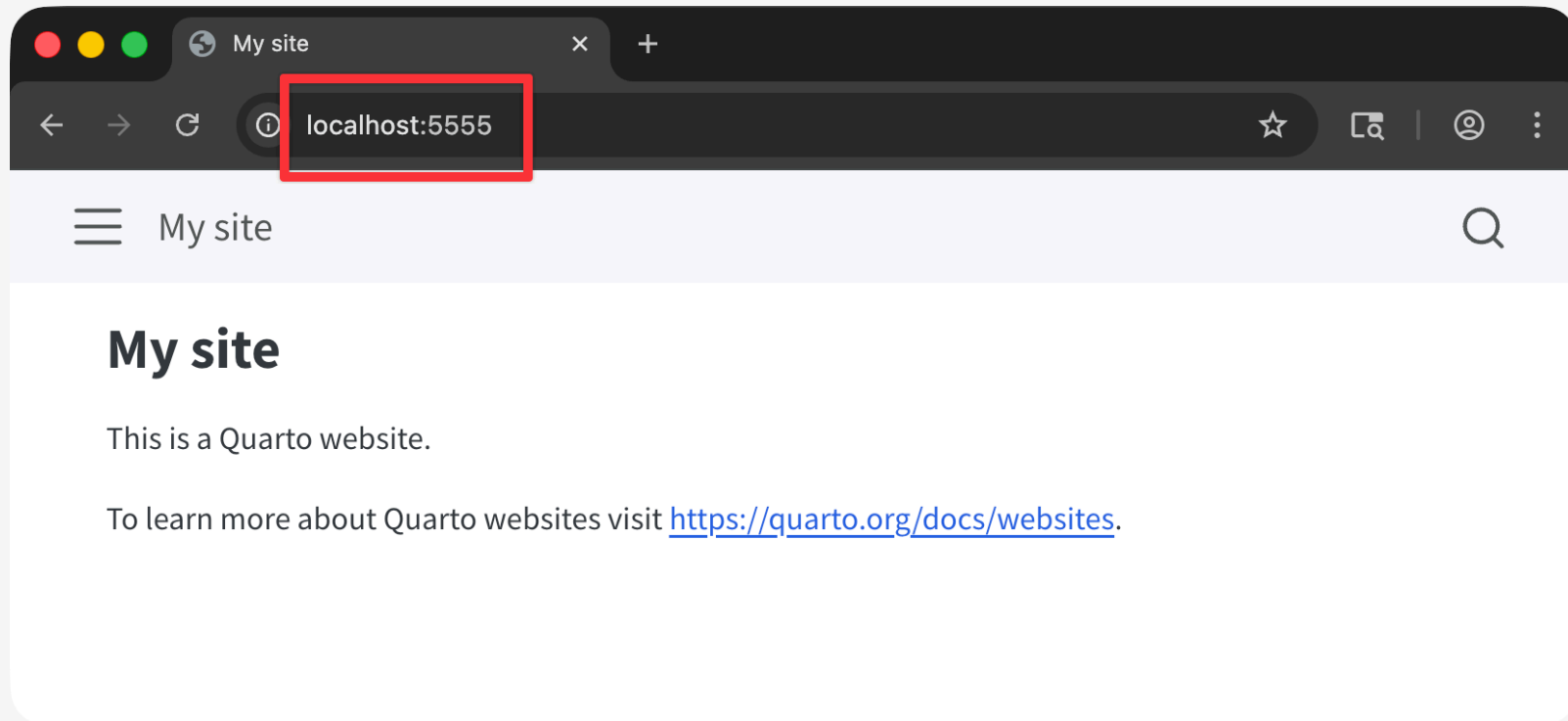
_quarto.yml

```
1 project:
2   type: website
3   output-dir: _output
4   preview:
5     port: 5555
```

Project settings

_quarto.yml

```
1 project:
2   type: website
3   output-dir: _output
4   preview:
5     port: 5555
```



Site settings

_quarto.yml

```
1 project:
2   type: website
3
4 website:
5   title: "My site"
6   description: "Some neat stuff"
7   cookie-consent: true
8   search: false
9   navbar:
10     left:
11       - href: index.qmd
12         text: Home
13
14 format:
15   html:
16     toc: true
```

Navigation settings

More on this in a bit!

_quarto.yml

```
1 project:
2   type: website
3
4 website:
5   title: "My site"
6   navbar:
7     left:
8       - href: index.qmd
9         text: Home
10  sidebar:
11    style: "docked"
12    contents:
13      - about.qmd
14
15 format:
16   html:
17     toc: true
```

Format settings

_quarto.yml

```
1 project:
2   type: website
3
4 website:
5   title: "My site"
6   navbar:
7     left:
8       - href: index.qmd
9         text: Home
10
11 format:
12   html:
13     toc: true
14     number-sections: true
15     cap-location: margin
```

Don't memorize this stuff!

The screenshot shows the Quarto.org website interface. At the top is a navigation bar with the Quarto logo, links for Overview, Get Started, Guide, Extensions, Reference, Gallery, Blog, and Help, social media icons, and a search icon. A 'supported by posit' badge is on the right. The main content area is titled 'Reference > Projects > Websites' and 'Website Options'. It explains that all available options for website projects are documented below, with a link to 'Creating a Website'. A code block shows a snippet from a `_quarto.yml` file: `project:
 type: website
 output-dir: _site`. Below this, a table lists options: 'title' and 'type' (with a description: 'Project type (default, website, book, or manuscript)'). A sidebar on the left lists various reference topics like Formats (HTML, PDF, MS Word, Typst, OpenDocument, ePub, Presentations, Dashboards, Markdown, Wikis, More Formats), Code Cells (Jupyter, Knitr, Observable), Projects (Options, Websites, Books), and more. A right sidebar titled 'On this page' lists links to Project, Preview, Serve, Website, Navbar, Nav Items, Sidebar, Announcement, Footer, Search, Social, Comments, Listings, and About, along with 'Edit this page' and 'Report an issue'.

quarto® Overview Get Started Guide Extensions Reference Gallery Blog Help

supported by posit

Reference > Projects > Websites

Website Options

All available options for `website` projects are documented below. See [Creating a Website](#) for an in-depth guide to creating websites with Quarto.

Project

Options that define the type, render targets, and output of a project. Project options are specified under the `project` key. For example:

```
_quarto.yml
project:
  type: website
  output-dir: _site
```

<code>title</code>	
<code>type</code>	Project type (<code>default</code> , <code>website</code> , <code>book</code> , or <code>manuscript</code>)

On this page

- Project
- Preview
- Serve
- Website
- Navbar
- Nav Items
- Sidebar
- Announcement
- Footer
- Search
- Social
- Comments
- Listings
- About

Edit this page
Report an issue

Quarto.org > Reference > Websites

Your turn

1. Edit your `_quarto.yml` to make the following changes:

- Change the preview port to 5555
- Enable a cookie consent dialog
- Add a site description

2. *Bonus tasks!*

- Add a footer that says “© 2025, Myself”
- Add an announcement bar that says something

Advice:

- Don't try to make all these changes at once! Remember the workflow: edit, save, preview, repeat.
- Use the documentation at [Quarto.org > Reference > Websites](#)

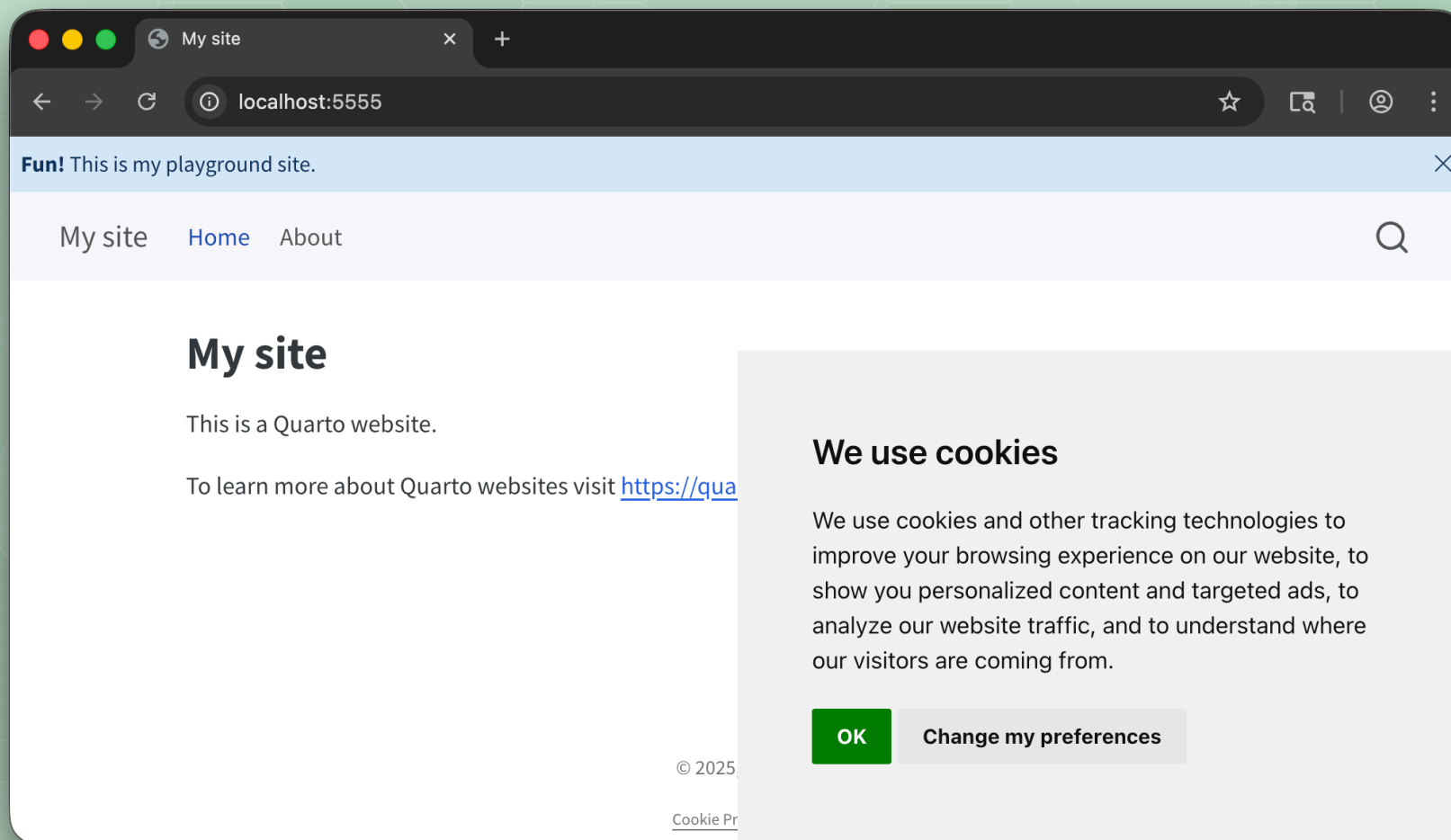
07:00

Answer

_quarto.yml

```
1 project:
2   type: website
3   preview:
4     port: 5555
5
6 website:
7   title: "My site"
8   description: "Something"
9   cookie-consent: true
10  page-footer: "© 2025, Myself"
11  announcement:
12    content: "**Fun!** This is my playground site."
13  navbar:
14    left:
15      - href: index.qmd
16        text: Home
```


Answer

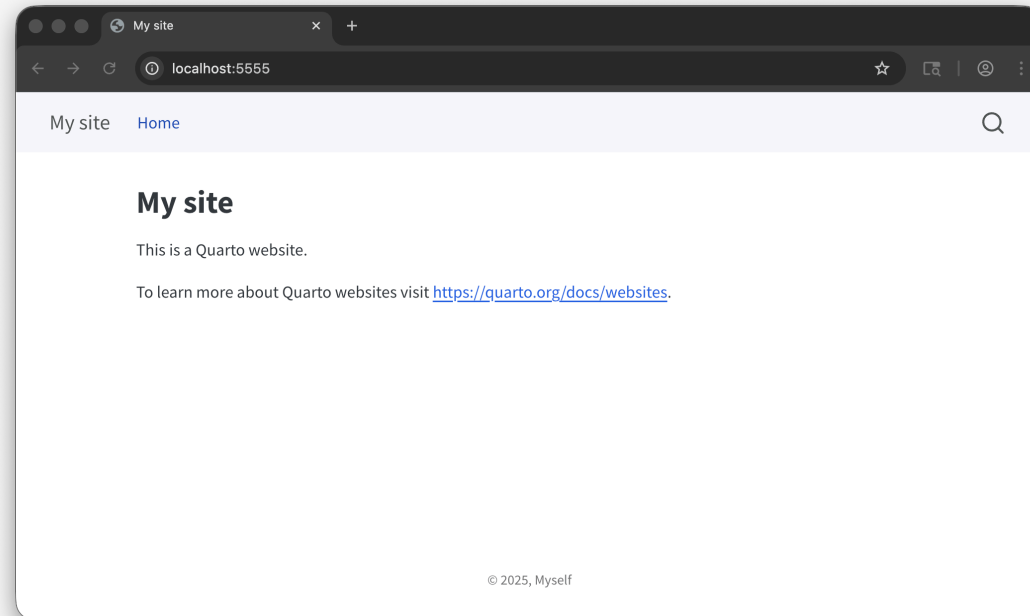


Navigation

Top navigation

_quarto.yml

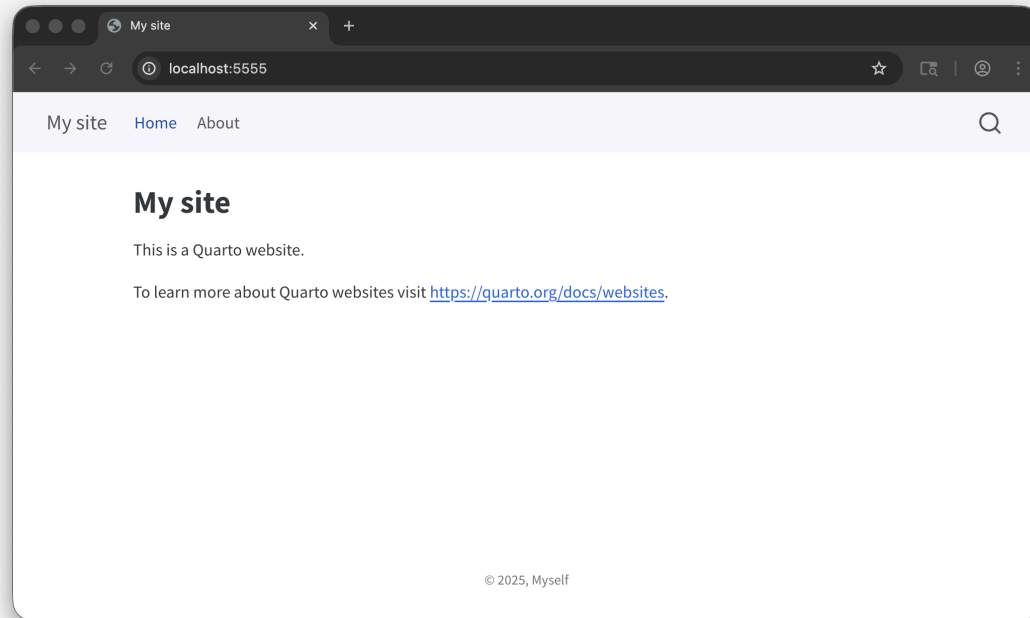
```
1 project:
2   type: website
3
4 website:
5   title: "My site"
6   navbar:
7     left:
8       - href: index.qmd
9         text: Home
10
11 format:
12   html:
13     toc: true
```



Add new page

_quarto.yml

```
1 project:
2   type: website
3
4 website:
5   title: "My site"
6   navbar:
7     left:
8       - href: index.qmd
9         text: Home
10      - about.qmd
11
12 format:
13   html:
14     toc: true
```



Entry titles

_quarto.yml

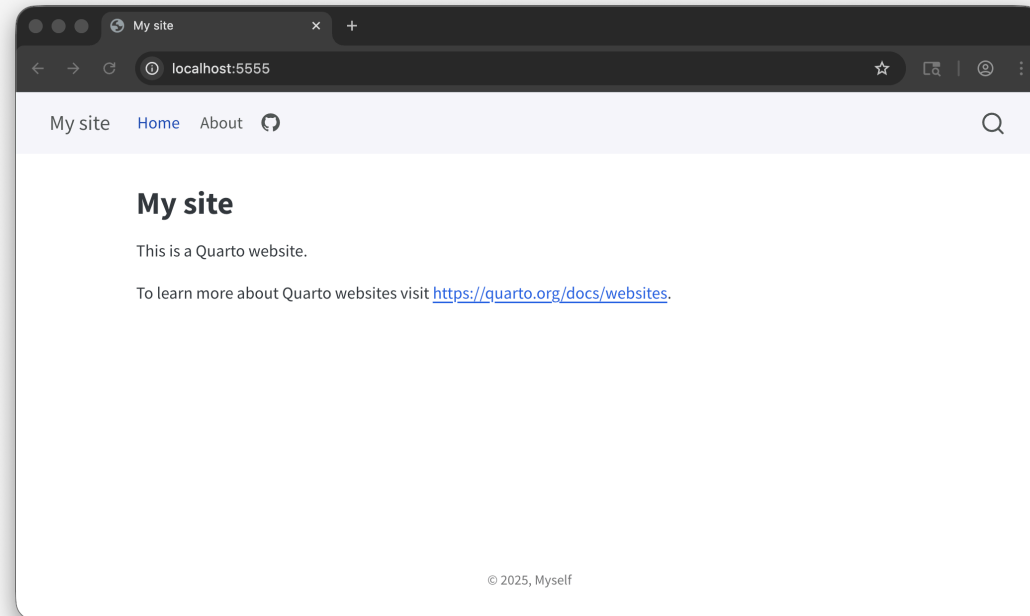
```
1 website:
2   navbar:
3     left:
4       - href: index.qmd
5         text: Home
6       - about.qmd
```

- Use `href` + `text` to control the link title
- Use the `.qmd` filename to use that page's title as the link title

Icons

_quarto.yml

```
1 website:
2   navbar:
3     left:
4       - href: index.qmd
5         text: Home
6       - about.qmd
7       - href: https://www.g
8         icon: github
```



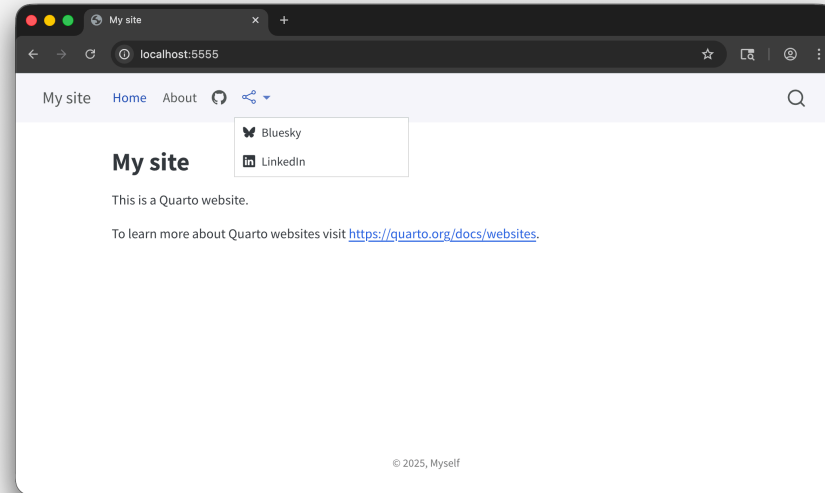
icons.getbootstrap.com

Documentation: <https://quarto.org/docs/websites/website-navigation.html#top-navigation>

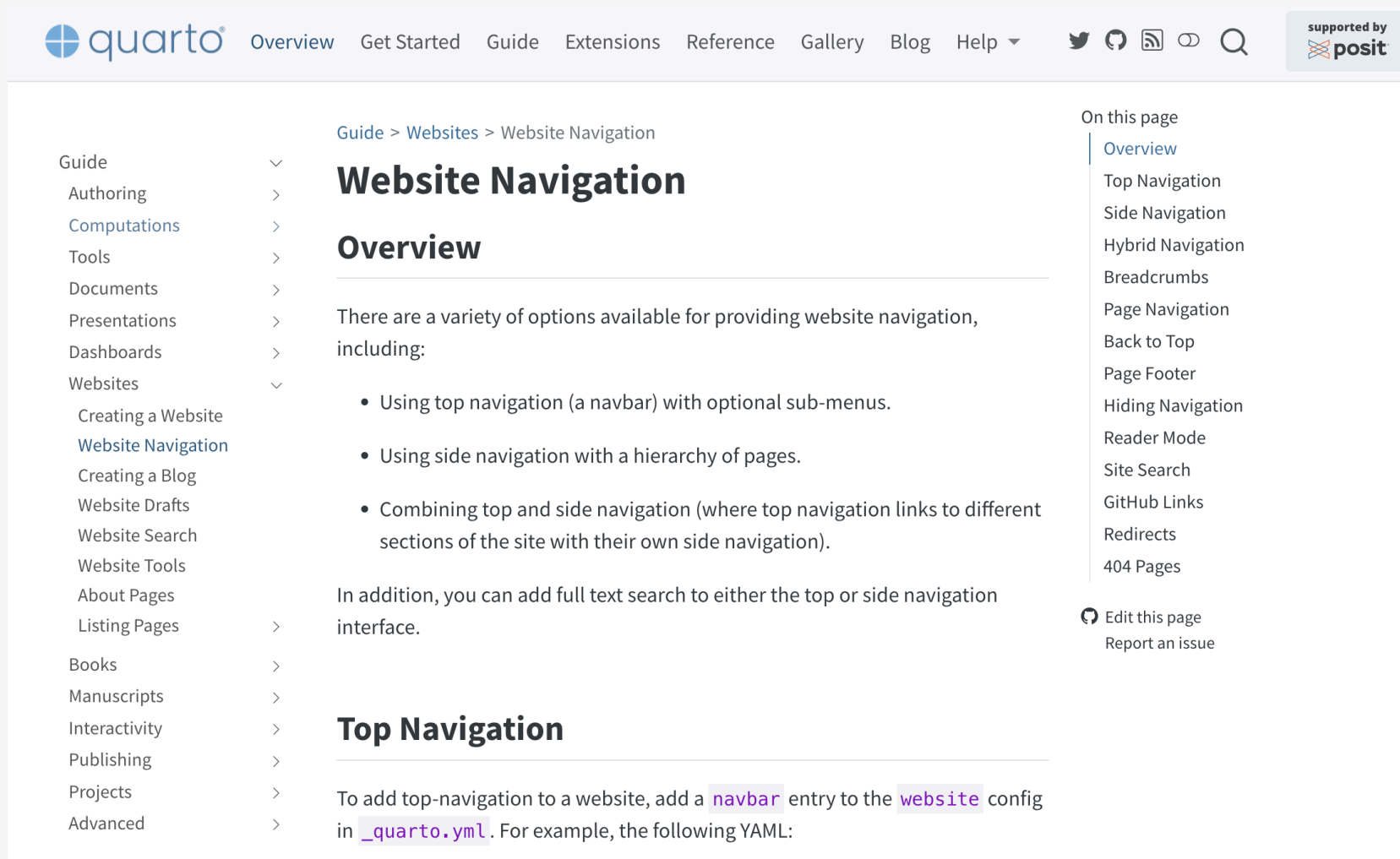
Dropdowns

_quarto.yml

```
1 website:
2   navbar:
3     left:
4       - href: index.qmd
5         text: Home
6       - about.qmd
7       - href: https://www.github.com
8         icon: github
9       - icon: share
10    menu:
11      - href: https://bsky.app/
12        icon: bluesky
13        text: Bluesky
14      - href: https://www.linkedin.com
15        icon: linkedin
16        text: LinkedIn
```



Don't memorize this stuff!



The screenshot shows the Quarto.org website. At the top is a navigation bar with the Quarto logo and links for Overview, Get Started, Guide, Extensions, Reference, Gallery, Blog, and Help. There are also social media icons and a search icon. A 'supported by posit' badge is in the top right. On the left is a sidebar menu with categories like Guide, Authoring, Computations, Tools, Documents, Presentations, Dashboards, Websites, Books, Manuscripts, Interactivity, Publishing, Projects, and Advanced. The main content area is titled 'Guide > Websites > Website Navigation' and 'Website Navigation Overview'. It explains that there are various options for providing website navigation, including: using top navigation (a navbar) with optional sub-menus; using side navigation with a hierarchy of pages; and combining top and side navigation. It also mentions that full text search can be added to the top or side navigation interface. The 'Top Navigation' section begins by stating that to add top-navigation to a website, one should add a 'navbar' entry to the 'website' config in '_quarto.yml'. On the right side of the main content area, there is a 'On this page' section with a list of links: Overview, Top Navigation, Side Navigation, Hybrid Navigation, Breadcrumbs, Page Navigation, Back to Top, Page Footer, Hiding Navigation, Reader Mode, Site Search, GitHub Links, Redirects, and 404 Pages. Below this list are links to 'Edit this page' and 'Report an issue'.

quarto® Overview Get Started Guide Extensions Reference Gallery Blog Help

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Guide > Websites > Website Navigation

Website Navigation

Overview

There are a variety of options available for providing website navigation, including:

- Using top navigation (a navbar) with optional sub-menus.
- Using side navigation with a hierarchy of pages.
- Combining top and side navigation (where top navigation links to different sections of the site with their own side navigation).

In addition, you can add full text search to either the top or side navigation interface.

Top Navigation

To add top-navigation to a website, add a `navbar` entry to the `website` config in `_quarto.yml`. For example, the following YAML:

On this page

- Overview
- Top Navigation
- Side Navigation
- Hybrid Navigation
- Breadcrumbs
- Page Navigation
- Back to Top
- Page Footer
- Hiding Navigation
- Reader Mode
- Site Search
- GitHub Links
- Redirects
- 404 Pages

Edit this page
Report an issue

Quarto.org > Guide > Websites > Website Navigation

Your turn

1. Create a new file named `contact.qmd` and paste the content from `about.qmd` into it. Then change it to something else.
2. Add `contact.qmd` to the left section of your top navigation bar.
3. Add a right section to the navigation bar with icon-based links to a few other websites.
4. *Bonus task!* Create a dropdown menu in the top navigation bar, either with links to other websites or links to some new `.qmd` pages that you create.

Advice:

- Don't try to make all these changes at once! Remember the workflow: edit, save, preview, repeat.
- Use the documentation at [Quarto.org > Guide > Websites > Website Navigation](#)

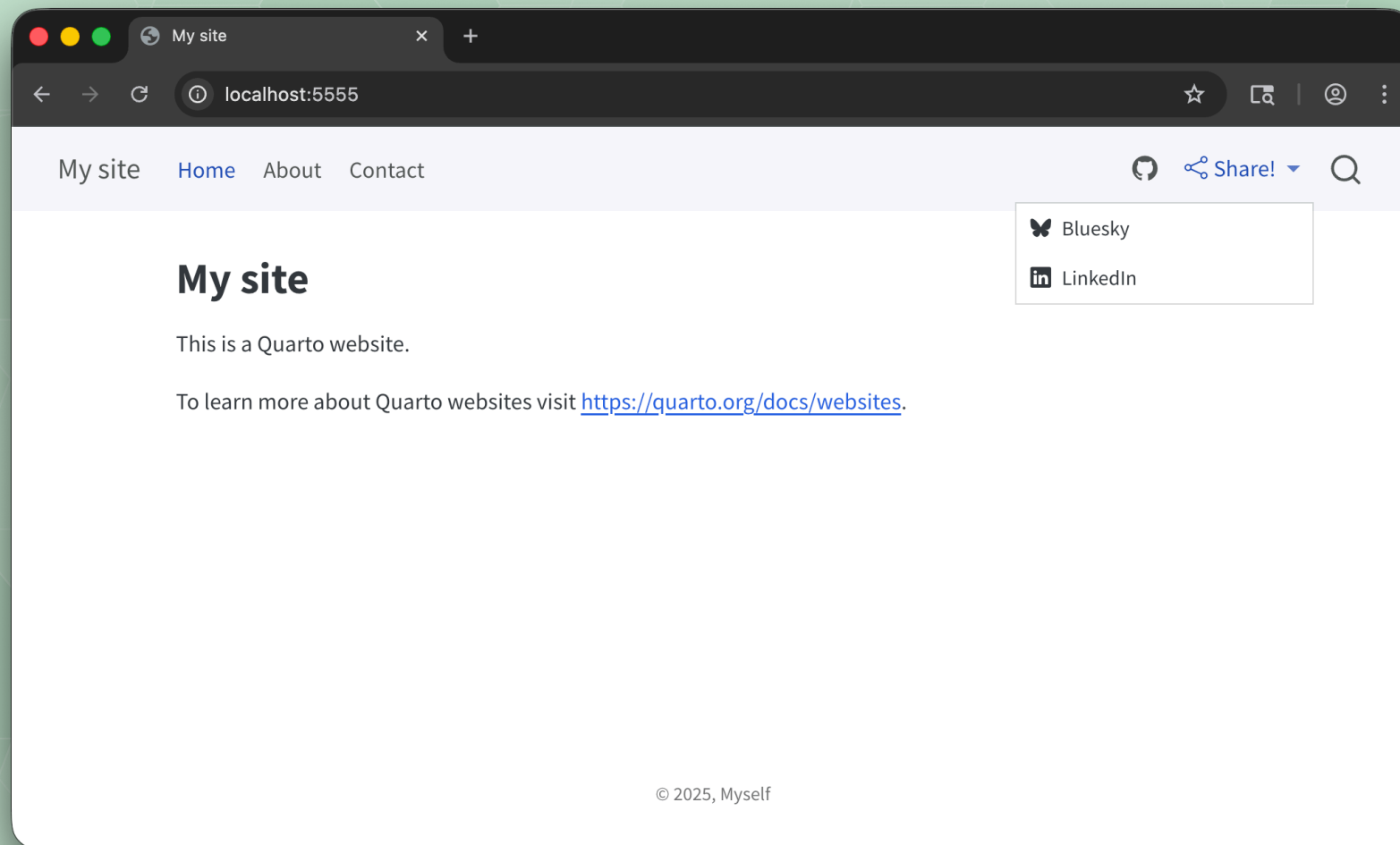
07:00

Answer

_quarto.yml

```
1 website:
2   navbar:
3     left:
4       - href: index.qmd
5         text: Home
6       - about.qmd
7       - contact.qmd
8     right:
9       - href: https://www.github.com
10        icon: github
11       - icon: share
12        text: Share!
13     menu:
14       - href: https://bsky.app/
15        icon: bluesky
16        text: Bluesky
17       - href: https://www.linkedin.com/
18        icon: linkedin
```

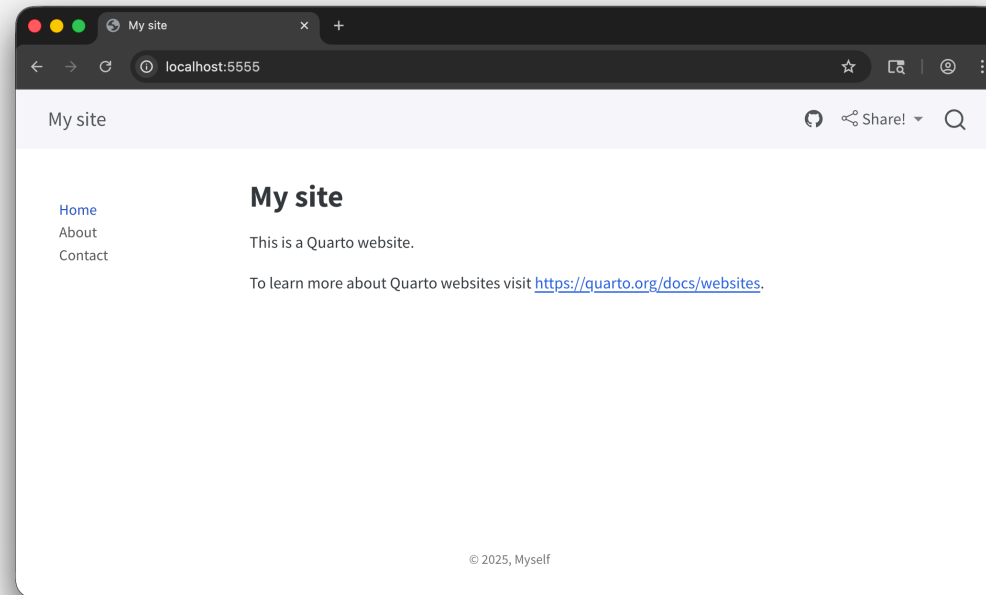
Answer



Side navigation

_quarto.yml

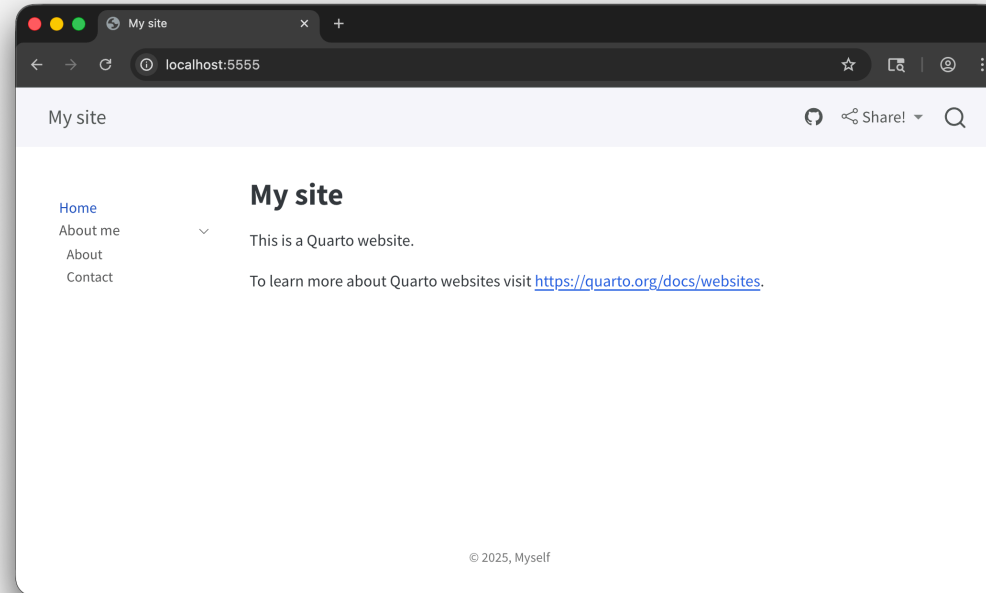
```
1 website:
2   sidebar:
3     contents:
4       - href: index.qmd
5         text: Home
6       - about.qmd
7       - contact.qmd
```



Side navigation and sections

_quarto.yml

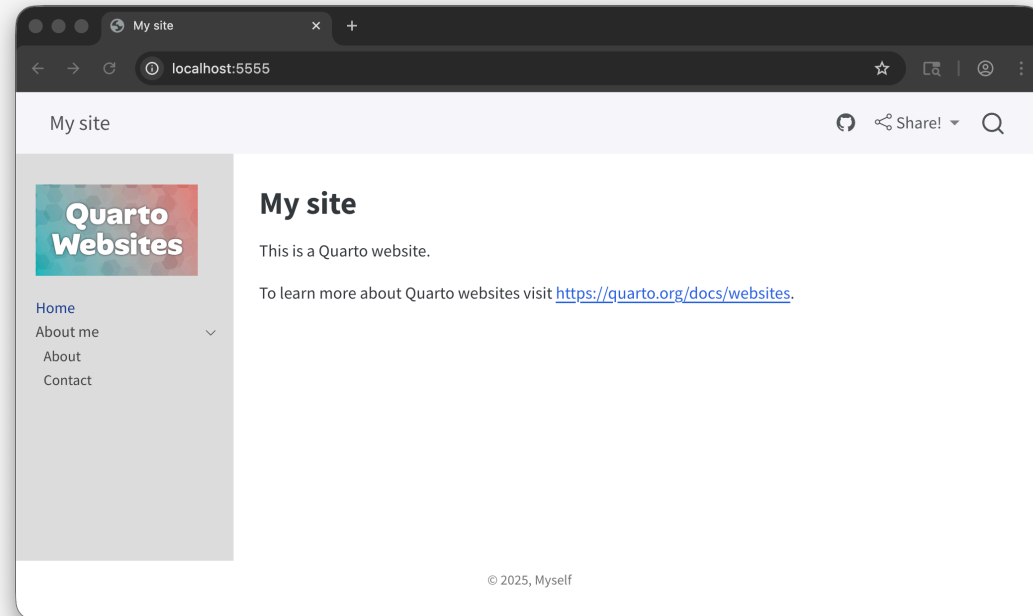
```
1 website:
2   sidebar:
3     contents:
4       - href: index.qmd
5         text: Home
6       - section: About me
7         contents:
8           - about.qmd
9           - contact.qmd
```



Side navigation and other settings

_quarto.yml

```
1 website:
2   sidebar:
3     style: "docked" # Default
4     background: "#dddddd"
5     logo: img/logo.png
6     contents:
7       - href: index.qmd
8         text: Home
9       - section: About me
10         contents:
11           - about.qmd
12           - contact.qmd
```



Automatic sidebar

_quarto.yml

```
1 website:
2   sidebar:
3     contents:
4       - href: index.qmd
5         text: Home
6       - section: Research
7         contents:
8           - research/project1.qmd
9           - research/project2.qmd
10          - research/project3.qmd
```

_quarto.yml







```
1 website:
2   sidebar:
3     contents:
4       - href: index.qmd
5         text: Home
6       - section: Research
7         contents: research/*
```


Hybrid navigation

Have a different sidebar for different sections!

```
_quarto.yml
1 website:
2   navbar:
3     left:
4       - href: index.qmd
5         text: Home
6       - about.qmd
7       - text: "Research"
8         href: research/index.qmd
9   sidebar:
10     - title: "Research"
11       contents:
12         - research/index.qmd
13         - research/project1.qmd
14         - research/project2.qmd
15         - research/project3.qmd
```


Don't memorize this stuff!

 Overview Get Started Guide Extensions Reference Gallery Blog Help     

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Guide

Authoring

Computations

Tools

Documents

Presentations

Dashboards

Websites

Creating a Website

Website Navigation

Creating a Blog

Website Drafts

Website Search

Website Tools

About Pages

Listing Pages

Books

Manuscripts

Interactivity

Publishing

Projects

Advanced

Guide > Websites > Website Navigation

Website Navigation

Overview

There are a variety of options available for providing website navigation, including:

- Using top navigation (a navbar) with optional sub-menus.
- Using side navigation with a hierarchy of pages.
- Combining top and side navigation (where top navigation links to different sections of the site with their own side navigation).

In addition, you can add full text search to either the top or side navigation interface.

Top Navigation

To add top-navigation to a website, add a `navbar` entry to the `website` config in `_quarto.yml`. For example, the following YAML:

On this page

Overview

Top Navigation

Side Navigation

Hybrid Navigation

Breadcrumbs

Page Navigation

Back to Top

Page Footer

Hiding Navigation

Reader Mode

Site Search

GitHub Links

Redirects

404 Pages

Edit this page

Report an issue

Quarto.org > Guide > Websites > Website Navigation

Your turn

1. Create a folder named `research` and create these files in there: `index.qmd`, `project1.qmd`, `project2.qmd`, and `project3.qmd`
2. Add an entry for `research.qmd` in your top navigation bar
3. Make a sidebar that only appears on the research page that contains links to `index.qmd`, `project1.qmd`, `project2.qmd`, and `project3.qmd`

Advice:

- Don't try to make all these changes at once! Remember the workflow: edit, save, preview, repeat.
- Use the documentation at [Quarto.org > Guide > Websites > Website Navigation](#)

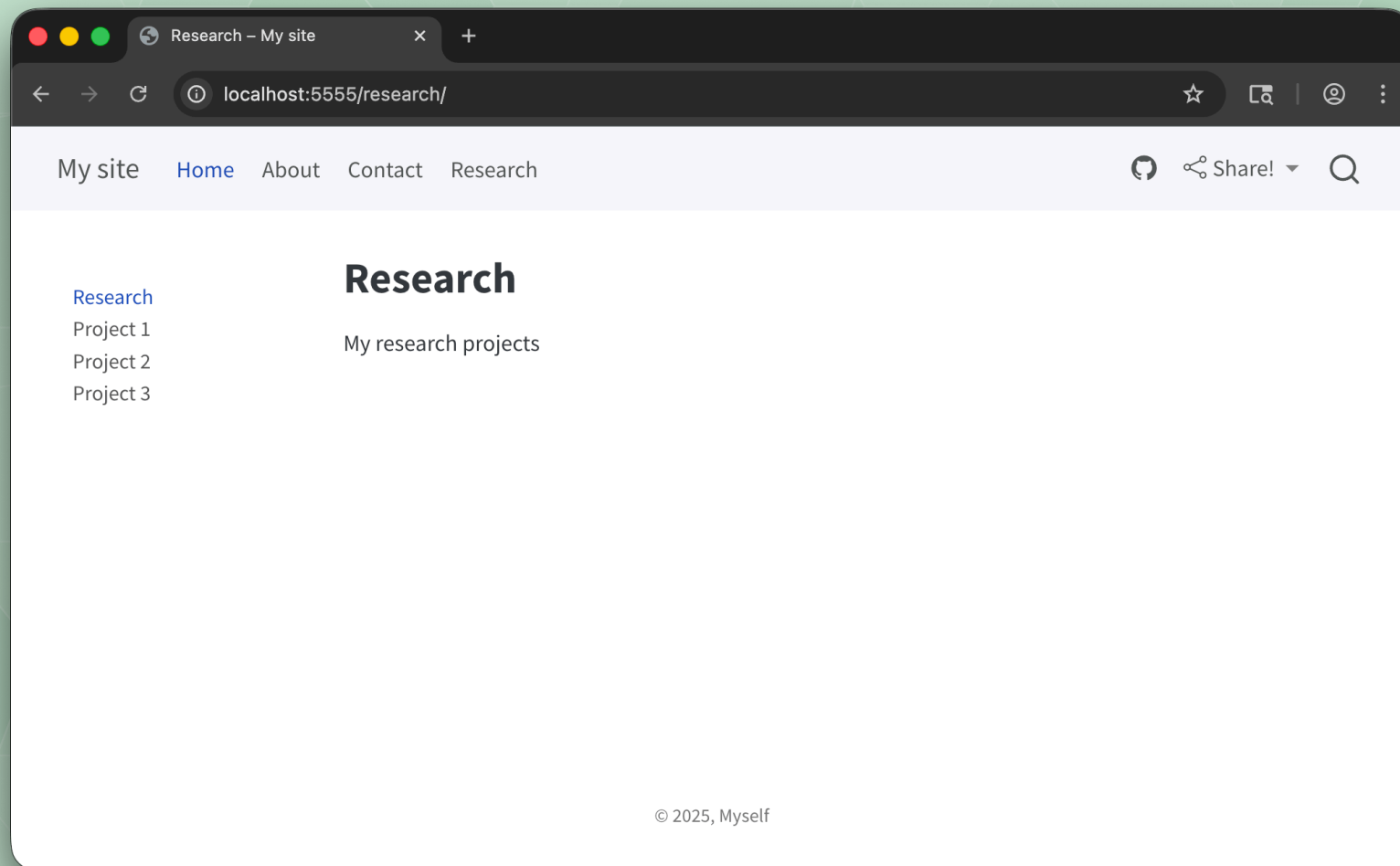
07:00

Answer

_quarto.yml

```
1 # Excerpt!
2 website:
3   navbar:
4     left:
5       - href: index.qmd
6         text: Home
7       - text: "Research"
8         href: research/index.qmd
9
10  sidebar:
11    - title: "Research"
12      contents:
13        - research/index.qmd
14        - research/project1.qmd
15        - research/project2.qmd
16        - research/project3.qmd
```

Answer



Special pages

YAML-based page settings

Some page types are based on special templates that use information from the YAML metadata.

Two main built-in special page types:

- Listing pages
- About pages

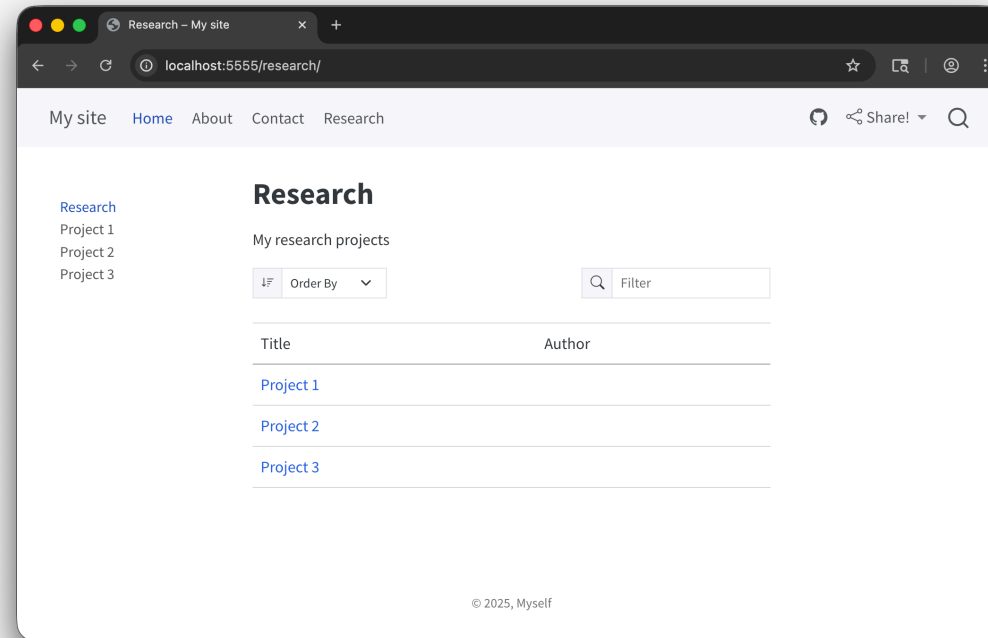
(you can make your own special templates too!)

Listing pages

More about these in the advanced section!

research.qmd

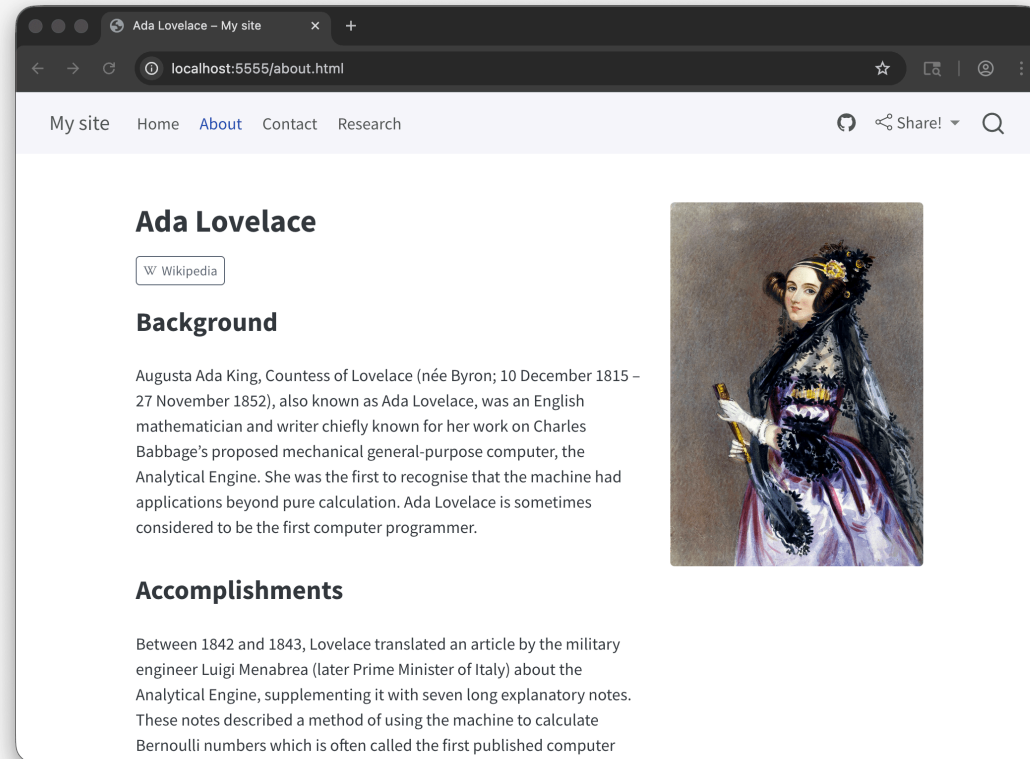
```
1 ---
2 title: "Research"
3 listing:
4   contents: "*.qmd"
5   type: table
6 ---
```



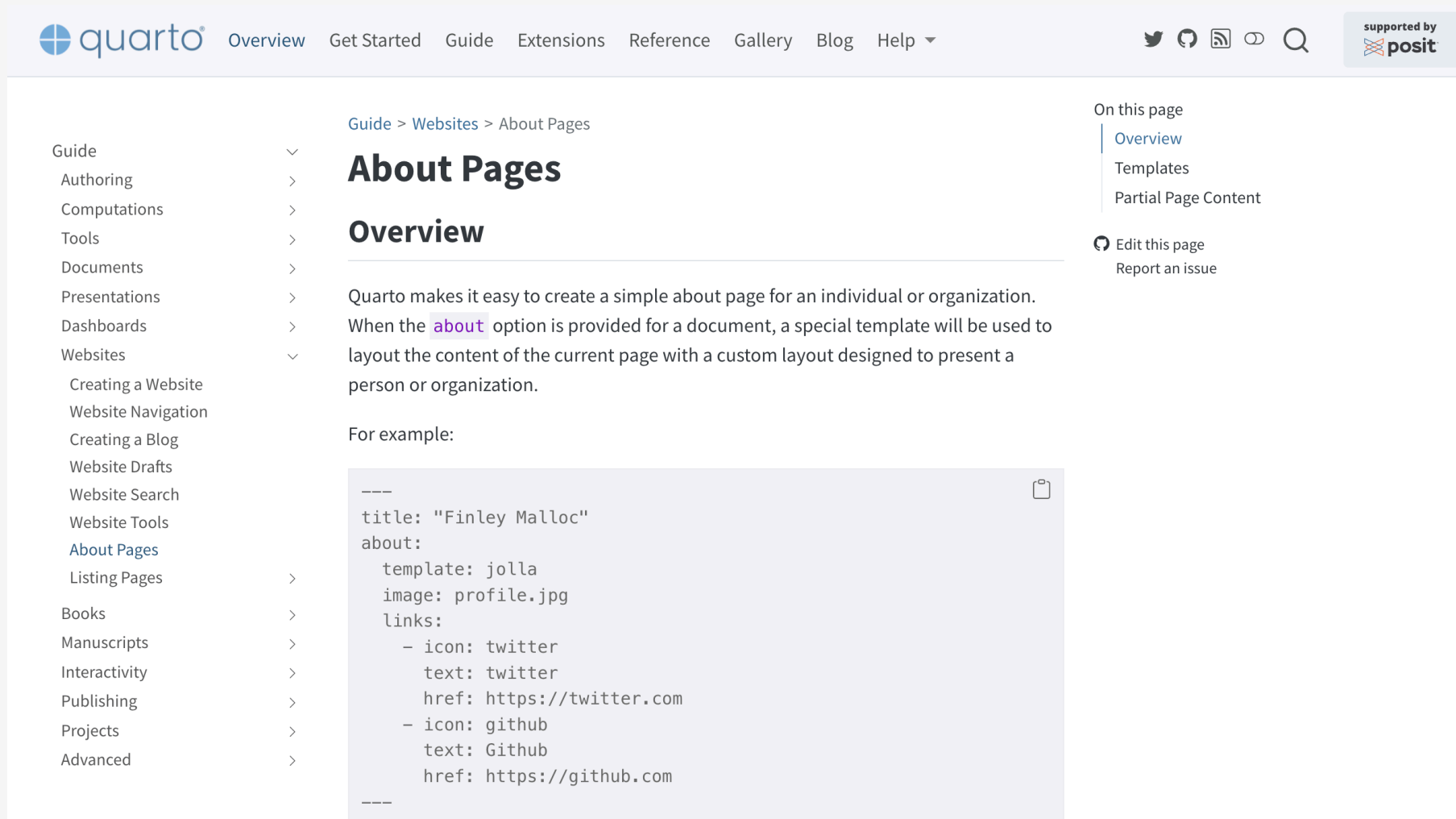
About pages

about.qmd

```
1 ---
2 title: "Ada Lovelace"
3 about:
4   template: solana
5   image: img/ada-lovelace.j
6   links:
7     - icon: wikipedia
8       text: Wikipedia
9       href: https://en.wiki
10 toc: false
11 ---
12
13 ## Background
14
15 Augusta Ada King, Countess
```



Don't memorize this stuff!



The screenshot shows the Quarto.org website. The top navigation bar includes the Quarto logo, links for Overview, Get Started, Guide, Extensions, Reference, Gallery, Blog, and Help, social media icons, and a search icon. A 'supported by posit' badge is in the top right. The left sidebar lists the site's structure, with 'About Pages' highlighted under the 'Websites' section. The main content area shows the 'About Pages' guide, including an 'Overview' section and a code example for an about page. The right sidebar contains 'On this page' links and options to edit the page or report an issue.

quarto® Overview Get Started Guide Extensions Reference Gallery Blog Help ▾

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Guide ▾
 Authoring >
 Computations >
 Tools >
 Documents >
 Presentations >
 Dashboards >
 Websites ▾
 Creating a Website
 Website Navigation
 Creating a Blog
 Website Drafts
 Website Search
 Website Tools
 About Pages
 Listing Pages >
 Books >
 Manuscripts >
 Interactivity >
 Publishing >
 Projects >
 Advanced >

Guide > Websites > About Pages

About Pages

Overview

Quarto makes it easy to create a simple about page for an individual or organization. When the `about` option is provided for a document, a special template will be used to layout the content of the current page with a custom layout designed to present a person or organization.

For example:

```
---  
title: "Finley Malloc"  
about:  
  template: jolla  
  image: profile.jpg  
  links:  
    - icon: twitter  
      text: twitter  
      href: https://twitter.com  
    - icon: github  
      text: Github  
      href: https://github.com  
---
```

Quarto.org > Guide > Websites > About Pages

Your turn

1. Create a basic About page for either yourself or some fictional person.



- Find an image on your computer or from the internet and add it to your project, either in the root of project, or (better!) in a folder just for images, like `img/`
- Add links to different websites (with icons!)
- Try different `template` options
- Try different `image-shape` options

Advice:

- Don't try to make all these changes at once! Remember the workflow: edit, save, preview, repeat.
- Use the documentation at [Quarto.org > Guide > Websites > About Pages](#)

07:00

Course outline

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



Break!