Advanced website features

Other common features

URLs

The website will mirror your file structure, including subdirectories

/about.qmd

↓

example.com/about.html

/research/project1.qmd

↓

example.com/research/project1.html

Custom URLs

What if you want nicer URLs?

example.com/about/

example.com/research/project1/

`index.html`

By convention, web servers treat `index.html` files in a special way.

example.com/about/

implicitly means

example.com/about/index.html

`index.qmd`

If you want **example.com/about/**, put your about page
in a folder named **about** and rename it to **index.qmd**.

/about.qmd

↓

/about/index.qmd

↓

example.com/about/

User-friendly URLs

You could have a blog post like this (ew):

/2025-10-16_blog-post-title.qmd

↓

example.com/2025-10-16_blog-post-title.html

Or like this (yay):

/blog/2025/10/16/blog-post-title/index.qmd

↓

example.com/blog/2025/10/16/blog-post-title/

Your turn

1. Make your `about.qmd` page appear at `about/`

`05:00`

Page layout

Page layouts

- `article`: Default layout with main text area between 600px–900px

- `full`: Expand main text area into the sidebar and margin area if there's no content there

- `custom`: Provide your own HTML template for the main text area

Component widths

YAML settings

```
format:
  html:
    page-layout: article   # or "full" or "custom"
    grid:
      sidebar-width: 300px
      body-width: 900px
      margin-width: 300px
      gutter-width: 1.5rem
```

Your turn

1. Change the page layout settings for one of your page

2. *Bonus task!* Try using the Bootstrap CSS Grid layout system with `page-layout: custom`.

   - **See the documentation here**
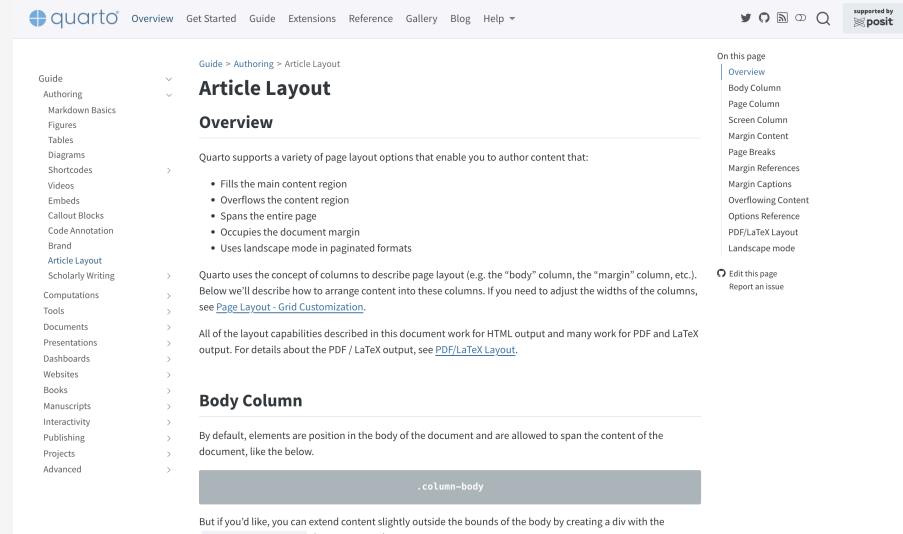   - **See an IRL example here** (**and code here**)

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 > Advanced > Page Layout**.

10:00

Article layout

Quarto offers *a ton* of article-specific layout options:

- Make content go into the margin

- Make content go across the whole page

- Put content in the margins

Your turn

1. Add an image that spans across the whole page

2. Add some text to the margin

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 > Authoring > Article Layout**.

10:00

Freezing

Re-running code

```
your-document.qmd
 1  ---
 2  title: "My Complex Document"
 3  format: html
 4  ---
 5
 6  Here we run all our models and ther
 7
 8  ```{r}
 9  # Intensive code!
10  ```
11
12  ```{r}
13  # Intensive code!
14  ```
15
16  ```{r}
17  # Intensive code!
18  ```
```

- Sometimes you'll have a lot of code chunks that take a long time to run.

- Quarto will re-run these chunks each time you render the site.

- Good for reproducibility! Bad for speed!

Freeze computational output

your-document.qmd

```
1   ---
2   title: "My Complex Document"
3   format: html
4   execute:
5     freeze: auto
6   ---
7
8   Here we run all our models and then
9
10  ```{r}
11  # Intensive code!
12  ```
13
14  ```{r}
15  # Intensive code!
16  ```
17
18  ```{r}
```

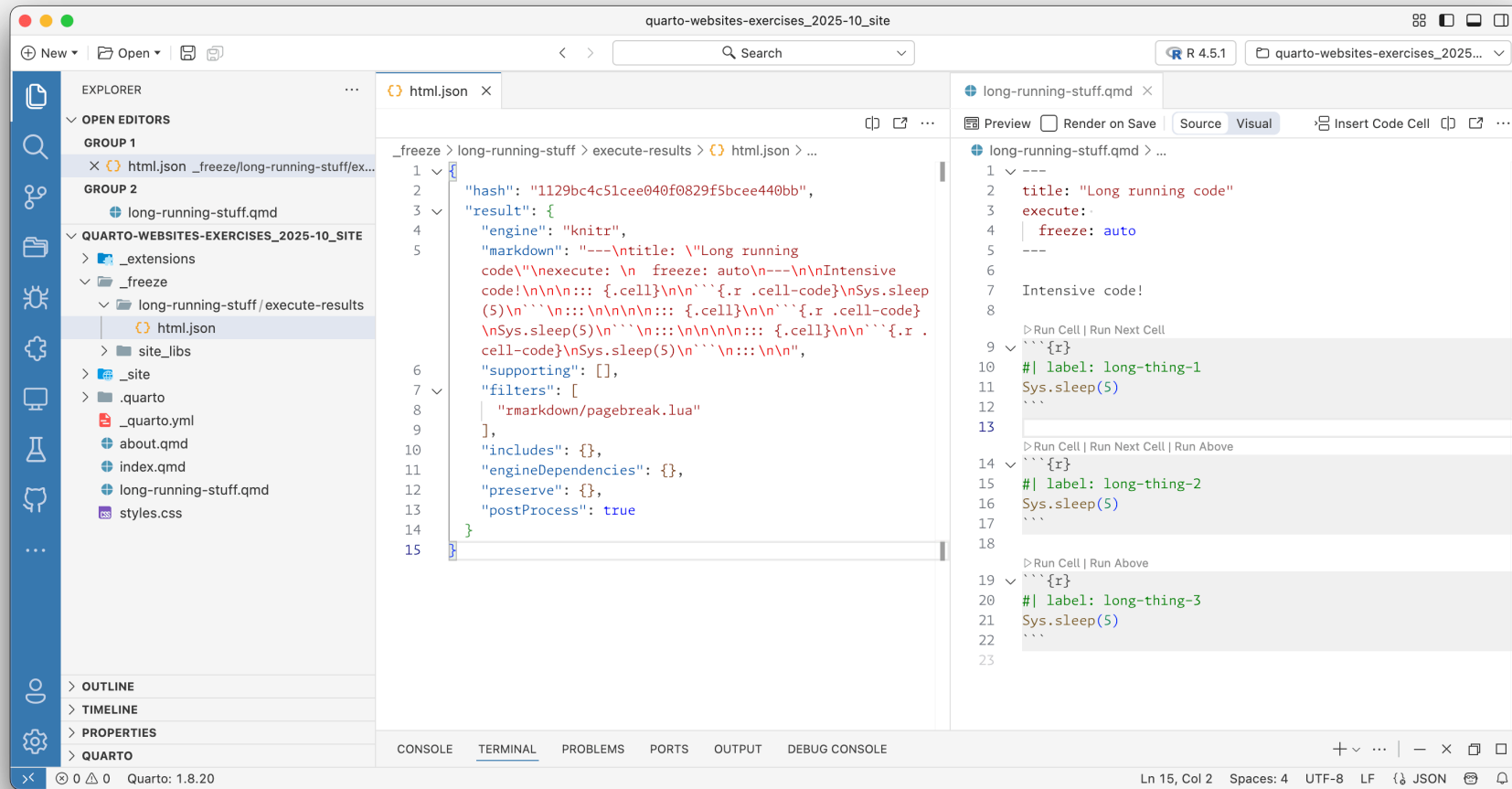Use `freeze: auto` to only re-run the code if the source file changes.

← Individual files
or site-wide ↓

_quarto.yml

```
1   project:
2     type: website
3
4   execute:
5     freeze: auto
6
7   website:
8     title: "Example site"
```

Freeze computational output

Code output is stored in `_freeze`

Freezing ≠ caching

- Freezing *only* stores the text of the code output.

- Changing the file will force a re-run.

- Consider caching if you don't want the code to re-run (see **documentation**):

```
execute:
  cache: true
```

Listings

Automatic content

We can automatically add all the pages in a folder to a 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
```
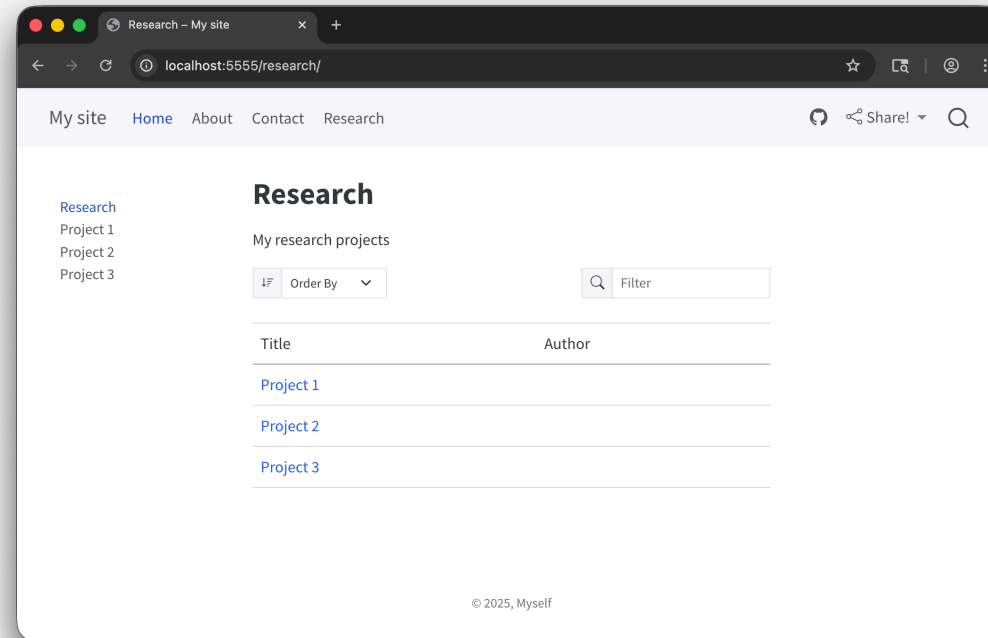
```
_quarto.yml
1  website:
2    sidebar:
3      contents:
4        - href: index.qmd
5          text: Home
6      - section: Research
7        contents: research/*
```

What if we want fancier automatic pages?

Documentation: **https://quarto.org/docs/websites/website-navigation.html#auto-generation**

Listing pages

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

Your turn

1. Edit `research/index.qmd` to be a listing page, showing all the pages in the `research` folder.

2. Experiment with changing the listing type to `default`, then `table`, then `grid`.

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 > Listing Pages**.
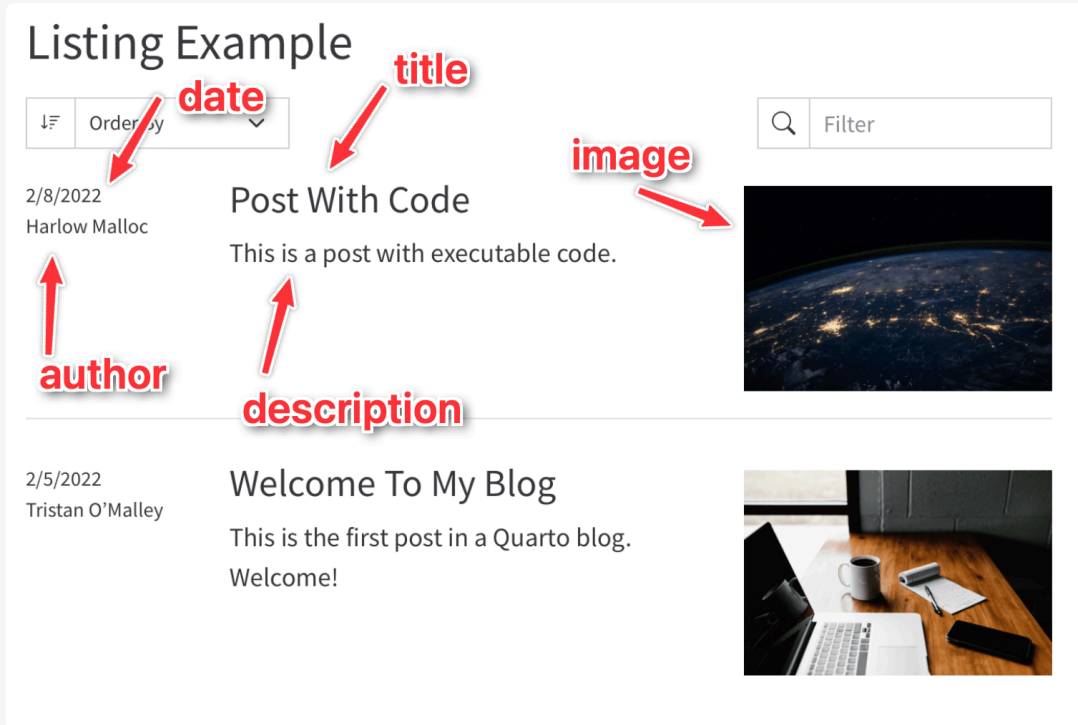
10:00

Metadata in listings


```
post.qmd
1  ---
2  title: "Research"
3  author: "Your name"
4  description: "Something"
5  date: 2025-10-06
6  image: "img/thing.jpg"
7  ---
```
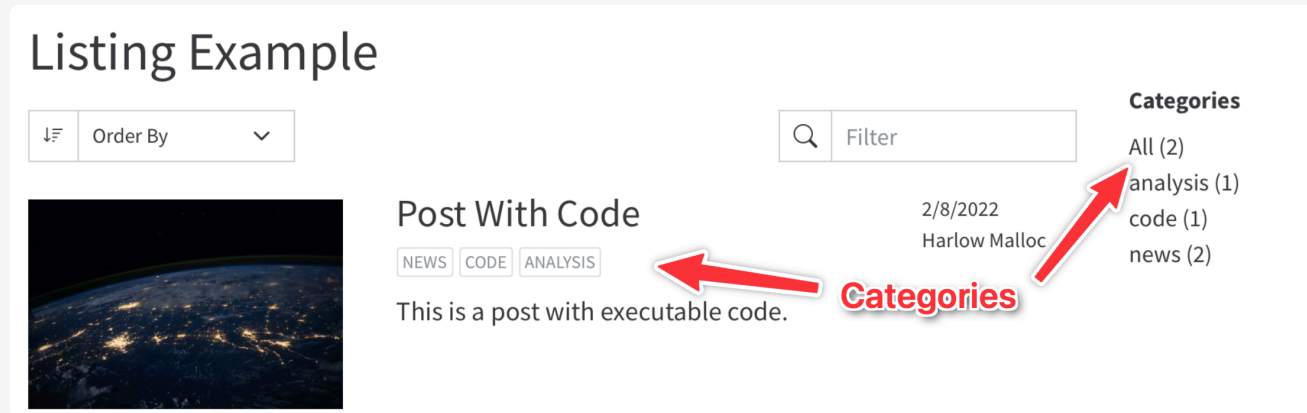
Your turn

1. Add metadata to your different research `.qmd` files, including images. See how those are reflected in the listing page after rendering.

2. *Bonus task!* Modify how the listing page is sorted. Sort it by descending title.

   - **See the documentation here**

3. *Bonus task!* Change how the dates are shown in the listing page with the `date-format` option.

   - **See the documentation here**

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 > Document Listings**.

10:00

Categories

Listing Example

Order By

Filter

Categories

All (2)
analysis (1)
code (1)
news (2)

Post With Code

NEWS CODE ANALYSIS

2/8/2022
Harlow Malloc

Categories

This is a post with executable code.

Enable categories in the listing settings

```
listing-page.qmd
1  listing:
2    categories: true
```

Specify categories in the document

```
post.qmd
1  ---
2  title: "Research"
3  categories:
4    - statistics
5    - r
6    - tidyverse
7  ---
```

Your turn

1. Add categories to your different research `.qmd` files. See how those are reflected in the listing page after rendering.

2. *Bonus task!* Change the category lisit on the listing page to appear as a word cloud.

   - **See the documentation here**

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 > Document Listings > Categories**.

10:00

Extra advanced bonus stuff

Multiple listings

Include lists of different document types on the same page (**example** + **code**)

Custom listings

Go beyond `default`, `table`, and `grid` and make your own template (**example** + **code**)

YAML lists

Generate listings of items in a YAML file isntead of `.qmd` files (**example**)

Your turn

Make a blog!

1. Create a new folder named `blog` with a file named `index.qmd` in it.

2. Make a few folders and files named `blog/2025/10/16/thing/index.qmd`, etc.

3. Add some fake content in the blog posts. Add images, titles, descriptions, etc.

4. Make the blog posts appear as a listing page at `blog/index.qmd`.

5. Add `blog/index.qmd` to your top navigation bar.

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 > Document Listings**.

20:00

Extensions

Extensions

Quarto has **extensions** that let you add custom...

- shortcodes

- filters

- document formats and templates

- brands

Shortcode extensions

Font Awesome icons (**site** + **extension**)

```
Terminal
quarto add quarto-ext/fontawesome
```

Text	Output
`{{< fa home >}}`	🏠
`{{< fa wand-magic-sparkles >}}`	🪄
`{{< fa brands apple >}}`	
`{{< fa brands r-project >}}`	Ⓡ
`{{< fa globe >}}`	🌐

Use in Markdown:

```
my-document.qmd
```

```
- {{< fa book >}} [Book page](https://www.bayesrulesbook.com/)
- {{< fa person-chalkboard >}} [Teaching resources](https://bayes-rules.github.
- {{< fa brands r-project >}} [R package](https://github.com/bayes-rules/bayesr
- {{< fa brands youtube >}} Alicia Johnson, ["Bayes Rules! An Introduction to E
```

↓

- 📖 **Book page**

- 🏠 **Project page**

- Ⓡ **R package** and **package documentation**

- ▶ Alicia Johnson, **"Bayes Rules! An Introduction to Bayesian Modeling with R with Alicia Johnson"**, presentation for R-Ladies Philly on October 18, 2021

Use in YAML:

```
_quarto.yml
```

```yaml
website:
  navbar:
    left:
      - text: "{{< fa person-chalkboard >}} Teaching"
        href: teaching.qmd
      - text: "{{< fa flask >}} Research"
        href: research.qmd
    right:
      - text: "{{< fa brands google-scholar >}}"
        href: "https://example.com"
```

↓

Filter extensions

Preview Color (**extension**)

```
Terminal
quarto add mcanouil/quarto-preview-colour
```

Enable in YAML, either for one page or site-wide:

```
filters:
  - preview-colour
```

We use #1696d2 for Democrats and and #db2b27 for Republicans.

↓

We use #1696d2⬤ for Democrats and and #db2b27⬤ for Republicans.

Lots of others!

There are hundreds of extensions: find them all at **Quarto.org > Extensions** or at **the Quarto Extensions directory**.

Here are some common extensions for websites specifically:

Extension	Description
Font Awesome	Include **Font Awesome** icons
Academicons	Include **academicons** icons
Custom Callouts	Go beyond Quarto's default `note`, `warning`, `important`, `tip`, and `caution` callouts
Preview Color	Add little circles to show hex colors
Embed PDFs	Easily embed PDF files in HTML documents
Downloadthis	Create download buttons

Your turn

1. Install the **Font Awesome extension** in your website project.

2. Use Font Awesome shortcodes:

   - Include a Font Awesome icon in your navigation bar
   - Include a Font Awesome icon in the text of one of your pages

3. Install another Quarto extension and play around with it.

Advice:

- Don't try to make all these changes at once! Remember the workflow: edit, save, preview, repeat.

- Use the documentation at the **Font Awesome extension page** and **Quarto.org > Extensions**.

10:00

What's next?

Course outline

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