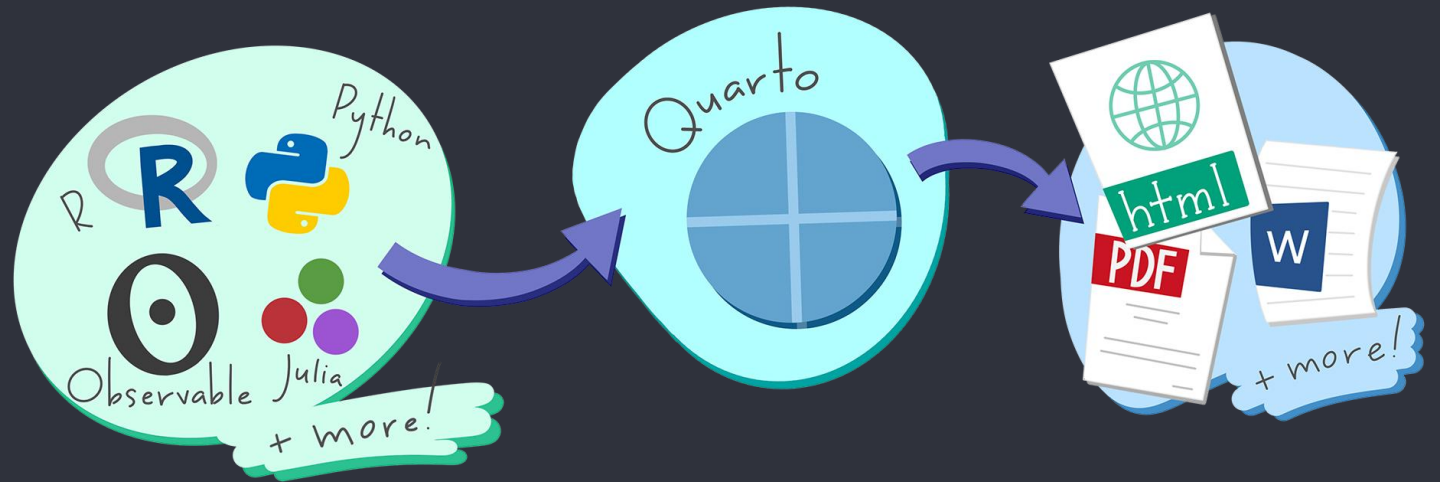


```
1
2
3
4 # Github Website Making Workshop using Quarto
5 # Led by: Hannah-Marie Lamle
6
7
8 # May 6th, 2025 3:00 – 5:00pm
9
10
11
12
13
14
```



What is Quarto?

- “An open-source scientific and technical publishing system” - <https://quarto.org/>
- Similar to LaTeX, create documents (markdown files) presentations, blogs, dashboards, websites using a coding tool (python, Rstudio, etc)



Set_Up.qmd

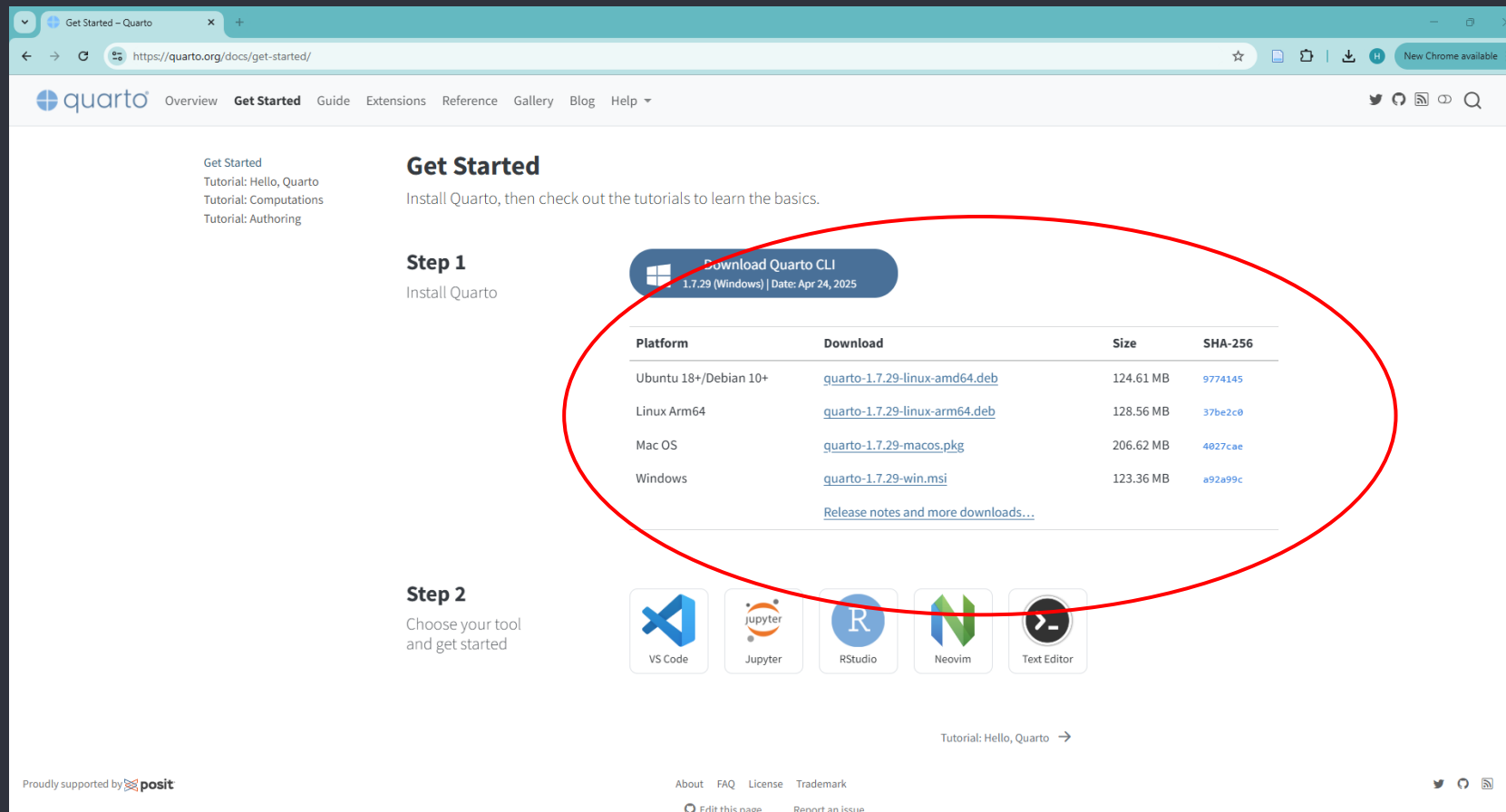
Ready? Let's go!

- LOG OUT of Rstudio if you have it up currently
- Log into Github



FCE_Science_Workshop_5.qmd

Download Quarto: <https://quarto.org/docs/get-started/>



The screenshot shows the 'Get Started' page for Quarto. A red circle highlights the 'Step 1: Install Quarto' section, which includes a 'Download Quarto CLI' button and a table of download links for various platforms. The table lists the platform, download link, size, and SHA-256 hash for each. Below the table, there is a link to 'Release notes and more downloads...'. At the bottom of the highlighted area, there are icons for various development environments: VS Code, Jupyter, RStudio, Neovim, and Text Editor.

Get Started
Tutorial: Hello, Quarto
Tutorial: Computations
Tutorial: Authoring

Get Started
Install Quarto, then check out the tutorials to learn the basics.

Step 1
Install Quarto

Download Quarto CLI
1.7.29 (Windows) | Date: Apr 24, 2025

Platform	Download	Size	SHA-256
Ubuntu 18+/Debian 10+	quarto-1.7.29-linux-amd64.deb	124.61 MB	9774145
Linux Arm64	quarto-1.7.29-linux-arm64.deb	128.56 MB	37be2c0
Mac OS	quarto-1.7.29-macos.pkg	206.62 MB	4027cae
Windows	quarto-1.7.29-win.msi	123.36 MB	a92a99c

[Release notes and more downloads...](#)

Step 2
Choose your tool and get started

VS Code Jupyter RStudio Neovim Text Editor

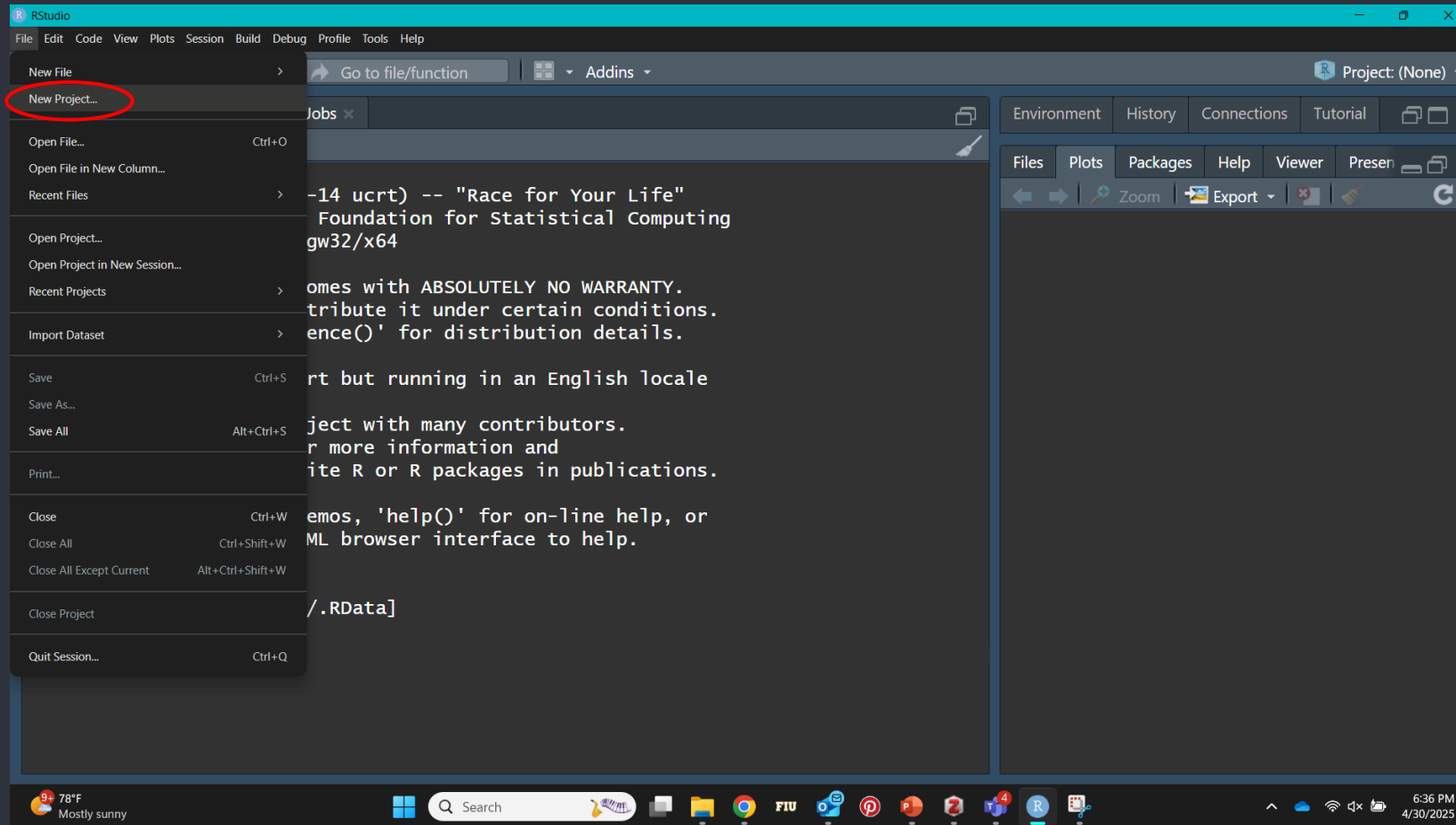
Tutorial: Hello, Quarto →

Proudly supported by **posit**

About FAQ License Trademark
Edit this page Report an issue

Set_Up.qmd

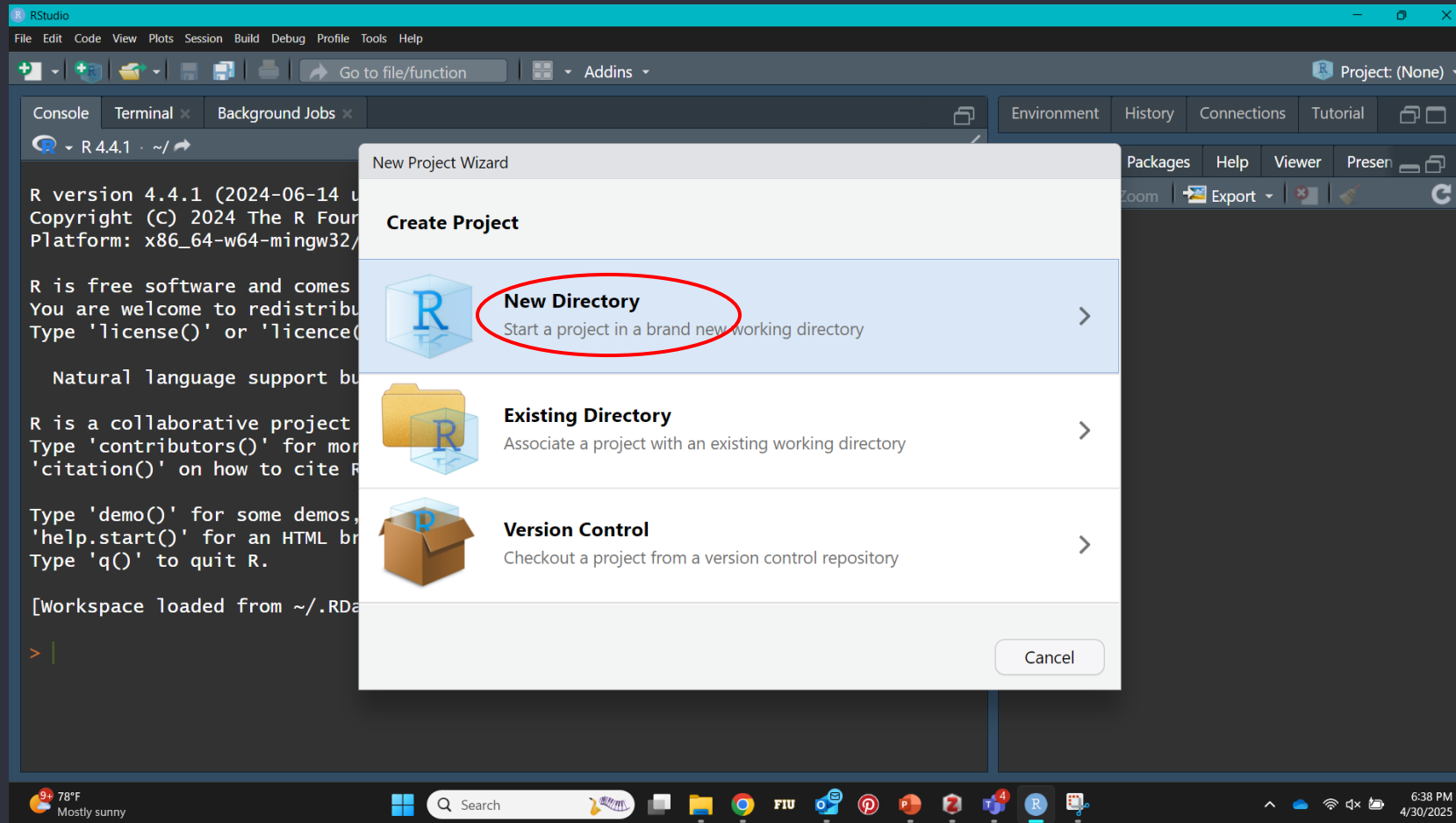
Create a new Quarto Website: file > new project



FCE_Science_Workshop_5.qmd

Set_Up.qmd

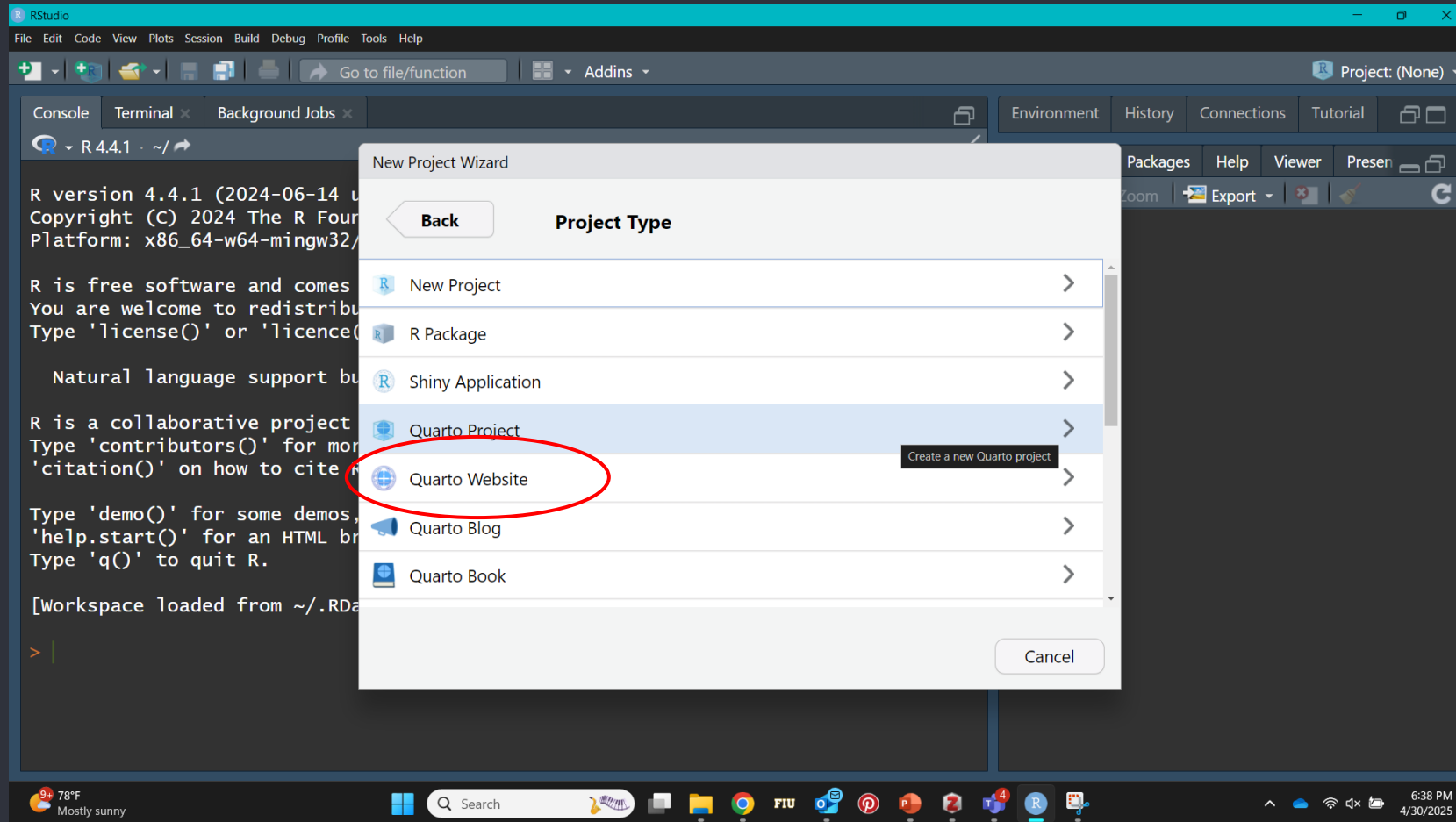
Create a new Quarto Website: New Directory



FCE_Science_Workshop_5.qmd

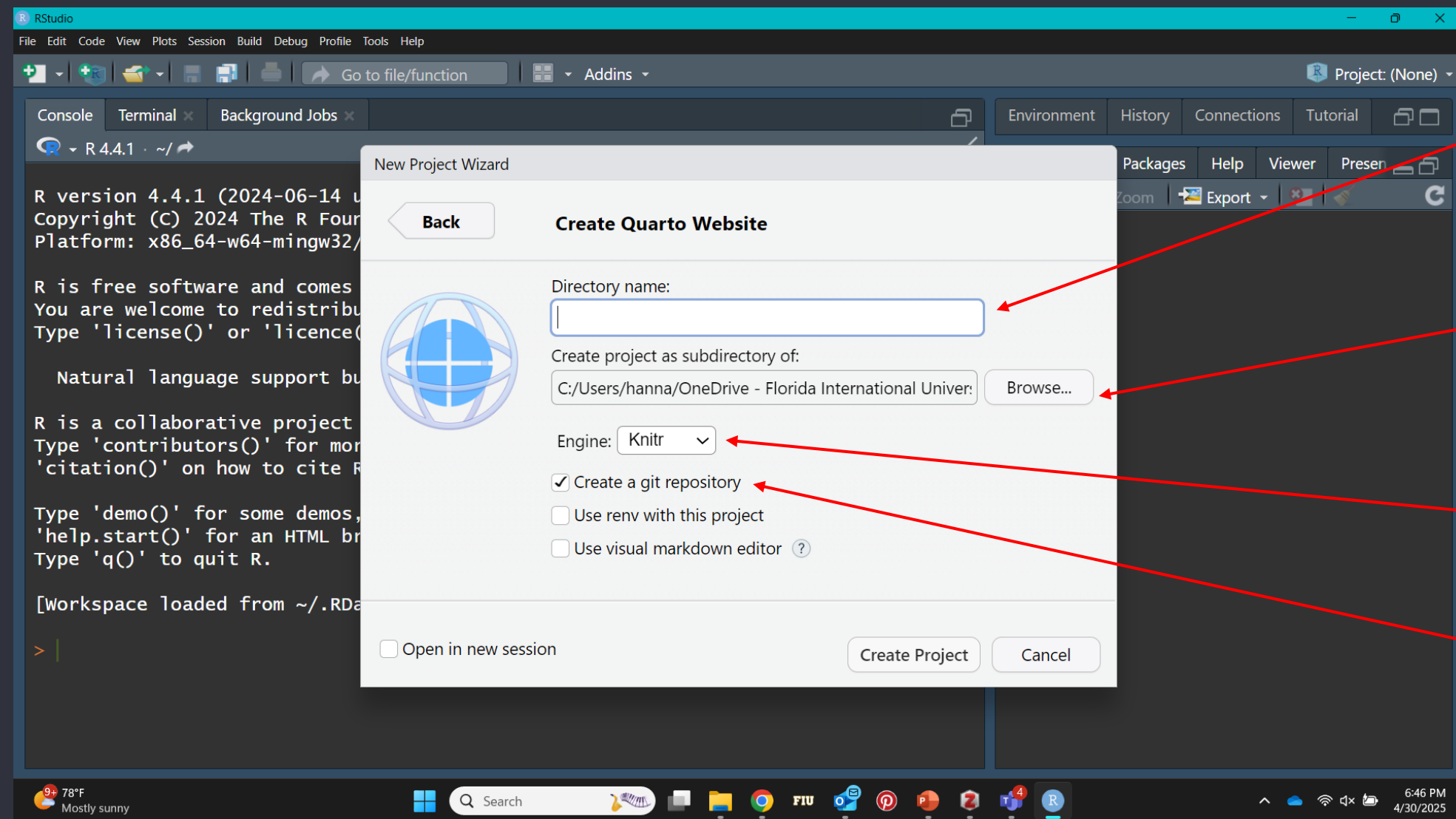
Set_Up.qmd

Create a new Quarto Website: Quarto Website



FCE_Science_Workshop_5.qmd

Set_Up.qmd



Directory name: does NOT have to match GitHub repo "my_website"

Location for your directory (choose where makes most sense for you)

Should be "Knitr" for everyone

YES!! Makes set up easier

FCE_Science_Workshop_5.qmd

Set_Up.qmd

You have a website!!

1. Go to “_quarto.yml” document

2. Include this line of code. (Indents are important!!)

3. SAVE!!

The screenshot shows the RStudio interface for a project named 'website_test'. The file explorer on the right lists the following files and their sizes:

Name	Size
..	
_quarto.yml	233 B
.gitignore	44 B
.Rhistory	0 B
about.qmd	58 B
index.qmd	154 B
styles.css	17 B
website_test.Rproj	267 B

The editor window shows the content of the '_quarto.yml' file:

```
1 project:
2   type: website
3   output-dir: docs
4
5 website:
6   title: "website_test"
7   navbar:
8     left:
9       - href: index.qmd
10         text: Home
11       - about.qmd
12
13 format:
```

Red arrows point from the text instructions to the corresponding elements in the screenshot: one to the '_quarto.yml' tab, another to the 'output-dir: docs' line, and a third to the file explorer.

The console at the bottom shows the R prompt and some introductory text:

```
> |
R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.
```

FCE_Science_Workshop_5.qmd

Set_Up.qmd

Switch to GitHub.. Create new repository to host website

The screenshot shows the GitHub profile page for user 'hmlamle'. The page includes a profile picture of a woman, her name 'Hannah-Marie Lamle', and her bio: 'PhD student at Florida International University in the Santos Seascapes Ecology Lab.' Below this is an 'Edit profile' button and statistics showing 3 followers and 8 following. The 'Repositories' tab is active, displaying a list of repositories. A red circle highlights the 'New' button in the repository filter area. The repositories listed are 'website_test' (Public, CSS, updated 46 minutes ago), 'FCE-dashboard-WS' (Public, Forked from cpul002/FCE-dashboard-WS, Carlos' R Dashboard workshop files, HTML, updated yesterday), 'BSC6926-B53B_Spring2025' (Public, Forked from SeascapesEcologyLab-workshops/BSC6926-B53B_Spring2025, R, updated last month), and 'LSAT' (Public, Rugosity and slope calculations for LAI's from Alain's LSAT measurements, R, updated on Mar 13).

hmlamle

Find a repository... Type Language Sort **New**

website_test Public Star

CSS Updated 46 minutes ago

FCE-dashboard-WS Public Star

Forked from cpul002/FCE-dashboard-WS
Carlos' R Dashboard workshop files
HTML Updated yesterday

BSC6926-B53B_Spring2025 Public Star

Forked from SeascapesEcologyLab-workshops/BSC6926-B53B_Spring2025
R Updated last month

LSAT Public Star

Rugosity and slope calculations for LAI's from Alain's LSAT measurements
R Updated on Mar 13

Hannah-Marie Lamle
hmlamle · she/her
PhD student at Florida International University in the Santos Seascapes Ecology Lab.
Edit profile
3 followers · 8 following
https://hmlamle.github.io/

FCE_Science_Workshop_5.qmd

Create a new repository



A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Required fields are marked with an asterisk (*).

Owner *  hmlamle /

Great repository names are short and memorable. Need inspiration? How about [fluffy-garbanzo](#) ?

Description (optional)

- ☒  **Public**
Anyone on the internet can see this repository. You choose who can commit.
- ☐  **Private**
You choose who can see and commit to this repository.

Initialize this repository with:

- ☐ Add a README file
This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore

.gitignore template: **None** ▼

Choose which files not to track from a list of templates. [Learn more about ignoring files.](#)

Choose a license

License: **None** ▼

A license tells others what they can and can't do with your code. [Learn more about licenses.](#)

 You are creating a public repository in your personal account.

Create repository

Name of repository will be website URL. Example:

Repository name: hmlamle.github.io

Website name: <https://hmlamle.github.io/>

Repository name: My_Crazy_Website

Website name: https://hmlamle.github.io/my_crazy_website/

Leave everything else here blank.

Set_Up.qmd

The screenshot shows the GitHub repository page for 'website_test'. At the top, there are buttons for 'Pin', 'Unwatch' (1), 'Fork' (0), and 'Star' (0). Below these are two main sections: 'Set up GitHub Copilot' and 'Add collaborators to this repository'. The 'Quick setup' section provides instructions for setting up the repository on a desktop or via HTTPS/SSSH. It includes a text box with the repository URL 'https://github.com/hmlamle/website_test.git'. Below this, there are two sections for creating a new repository or pushing an existing one from the command line. The first section shows a series of git commands to initialize a new repository. The second section, which is circled in red, shows the commands to push an existing repository. A red arrow points from the text on the right to the first line of the second section's code block.

website_test Public

Pin Unwatch 1 Fork 0 Star 0

Set up GitHub Copilot
Use GitHub's AI pair programmer to autocomplete suggestions as you code.
[Get started with GitHub Copilot](#)

Add collaborators to this repository
Search for people using their GitHub username or email address.
[Invite collaborators](#)

Quick setup — if you've done this kind of thing before

[Set up in Desktop](#) or [HTTPS](#) [SSH](#)

Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# website_test" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/hmlamle/website_test.git
git push -u origin main
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/hmlamle/website_test.git
git branch -M main
git push -u origin main
```

ProTip! Use the URL for this page when adding GitHub as a remote.

Since we already have an existing Git repo (we created one when we created the website in Rstudio) we just need to push it to our new GitHub repo...

Copy just the first line of code:

"git remote add origin https://github.com/your_username/your_repository.git"

Set_Up.qmd

Back to Rstudio... finalizing the communication from Rstudio > Git > Github

1. Make sure you are in
the terminal

2. Paste the code from
GitHub. You should NOT
see the error on my screen.

3. Type this code and enter.
This is staging all our files.

4. Type this code and enter.

5. Type this code and enter.

6. Type this code and enter.

The screenshot shows the RStudio interface with the following components:

- Source Editor:** Contains a YAML file with the following content:

```
1 project:
2   type: website
3   output-dir: docs
4
```
- Terminal:** Shows the following commands and output:

```
C:\Users\hanna\OneDrive - Florida International University\R\website_test>git remote add origin https://github.com/your_username/your_repository.git
error: remote origin already exists.
C:\Users\hanna\OneDrive - Florida International University\R\website_test>git remote add origin https://github.com/your_username/your_repository.git
error: remote origin already exists.
C:\Users\hanna\OneDrive - Florida International University\R\website_test>git add .
"Initial commit of Quarto website"
C:\Users\hanna\OneDrive - Florida International University\R\website_test>git commit -m "Initial commit of Quarto website"
[main be7adfb] Initial commit of Quarto website
1 file changed, 1 insertion(+)
C:\Users\hanna\OneDrive - Florida International University\R\website_test>git branch -M main
C:\Users\hanna\OneDrive - Florida International University\R\website_test>git push -u origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 322 bytes | 322.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/hmlamle/website_test.git
 eafd83e..be7adfb  main -> main
branch 'main' set up to track 'origin/main'.
```
- Environment:** Shows the current environment with no objects.
- History:** Shows the commit history.
- Connections:** Shows the connection to the Git repository.
- Build:** Shows the build status.
- Git:** Shows the Git status.
- Tutorial:** Shows the tutorial progress.
- Files:** Shows the file explorer with the following files:

Name	Size	Modified
..		
_quarto.yml	274 B	May 1, 2025
.gitignore	44 B	Apr 30, 2025
.Rhistory	0 B	May 1, 2025
about.qmd	58 B	Apr 30, 2025
index.qmd	154 B	Apr 30, 2025
styles.css	17 B	Apr 24, 2025
website_test.Rproj	267 B	May 1, 2025

FCE_Science_Workshop_5.qmd

Set_Up.qmd

Back to GitHub AGAIN (last time I promise) to ensure communication...

The screenshot shows a GitHub repository named 'website_test' (Public). The repository has 1 branch (main) and 0 tags. A red circle highlights the file list, which includes:

File	Commit Message	Time
.quarto/project-cache	initial commit of quarto website	16 hours ago
.gitignore	initial commit of quarto website	16 hours ago
_quarto.yml	Initial commit of Quarto website	14 minutes ago
about.qmd	initial commit of quarto website	16 hours ago
index.qmd	initial commit of quarto website	16 hours ago
styles.css	initial commit of quarto website	16 hours ago
website_test.Rproj	initial commit of quarto website	16 hours ago

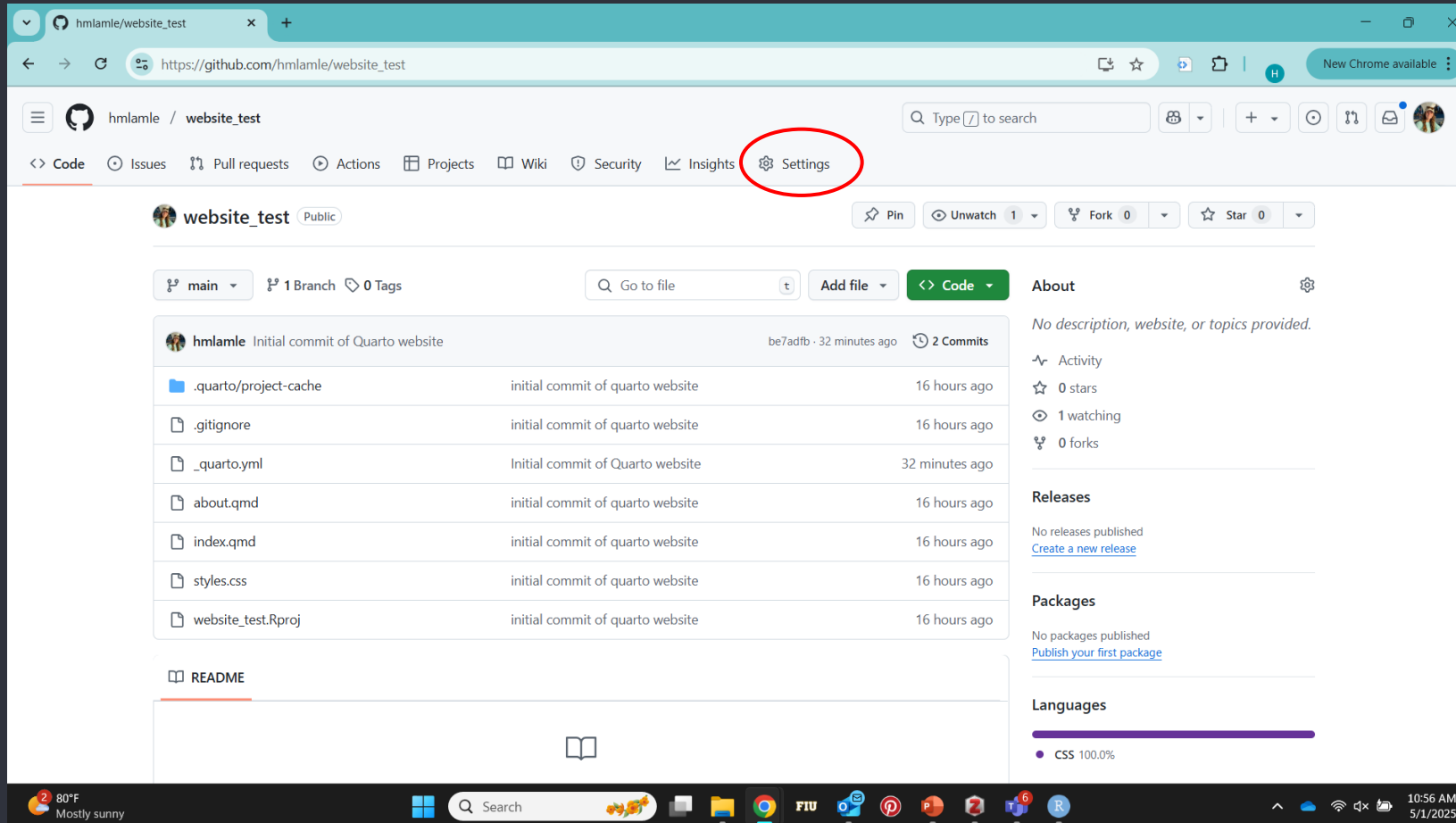
The right sidebar shows the 'About' section with no description, website, or topics provided. It also shows 'Releases' (No releases published) and 'Packages' (No packages published). The 'Languages' section shows CSS at 100.0%.

Should see all of our files now and time should be 1 minute ago

FCE_Science_Workshop_5.qmd

Set_Up.qmd

And launch website!!



FCE_Science_Workshop_5.qmd

The screenshot shows the GitHub repository settings page for a repository named 'Set_Up.qmd'. The left sidebar contains a list of settings categories: General, Access, Collaborators, Moderation options, Code and automation, Branches, Tags, Rules, Actions, Webhooks, Environments, Codespaces, Pages, Security, Code Security, Deploy keys, and Secrets and variables. The 'Pages' tab is selected and circled in red. The main content area is titled 'GitHub Pages' and contains the following sections:

- Build and deployment**
 - Source**: A dropdown menu set to 'Deploy from a branch'.
 - Branch**: A message stating 'GitHub Pages is currently disabled. Select a source below to enable GitHub Pages for this repository. [Learn more about configuring the publishing source for your site.](#)' Below this message, there are three elements: a branch selector set to 'main', a folder selector set to '/docs', and a 'Save' button. These three elements are circled in red.
- Visibility**: A section with a 'GitHub Enterprise' badge. It contains text about restricting access to the GitHub Pages site and a 'Start free for 30 days' button.

Red arrows point from the 'Pages' tab in the sidebar to the 'Build and deployment' section, and from the 'main' branch selector to the 'Branch' section header.

1. Go down to the pages tab

2. Click “none” and select “main”

3. Click /(root) and select /docs

4. save!

Did our website render??
NO... why?

We haven't rendered it
locally yet to create the
docs folder!

Lets go back to Rstudio,
customize our website
and render it!

Quarto Website Files 101:

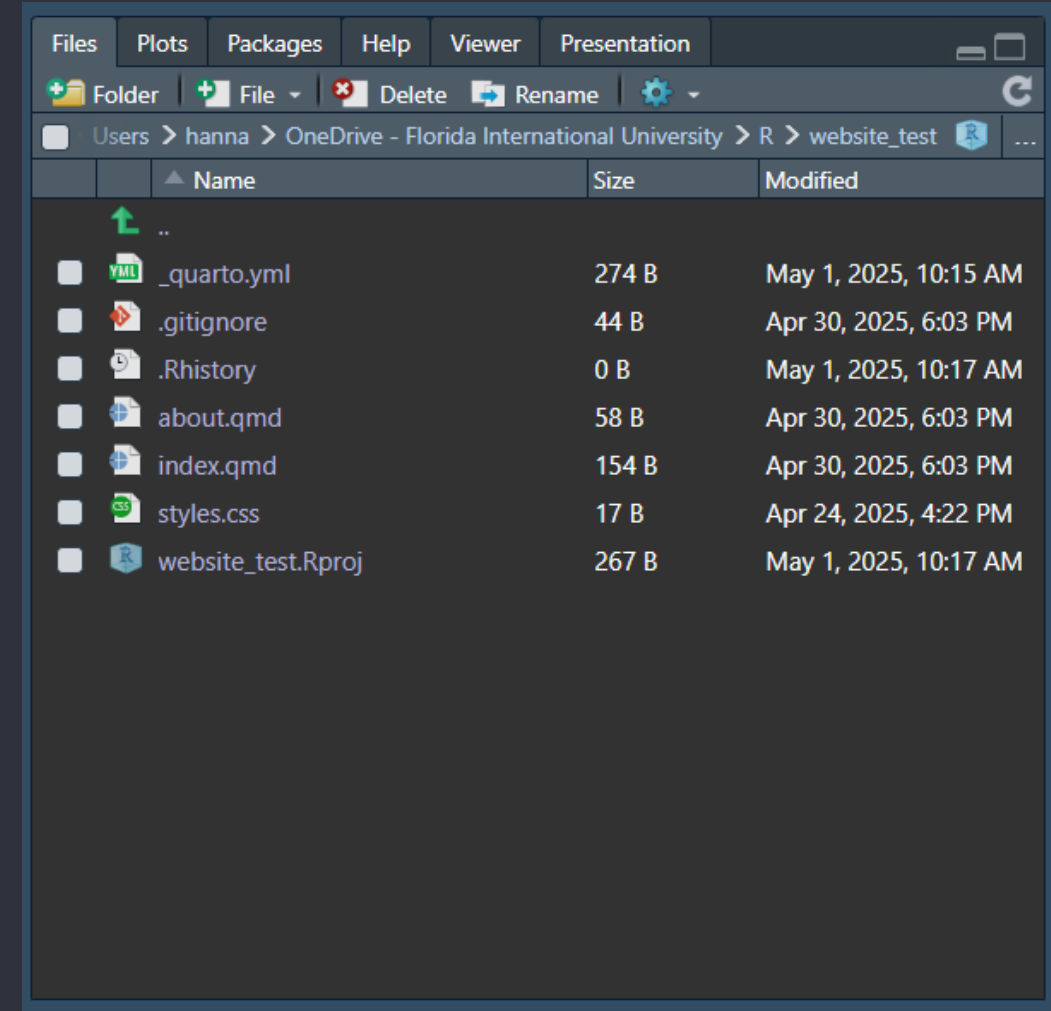
_quarto.yml - “settings” file for your website. Do not change name!

about.qmd - This is one page of our website! All pages will be Quarto markdown files.

index.qmd - Home/landing page of website.

styles.css - “cascading style sheet,” custom formatting goes here.

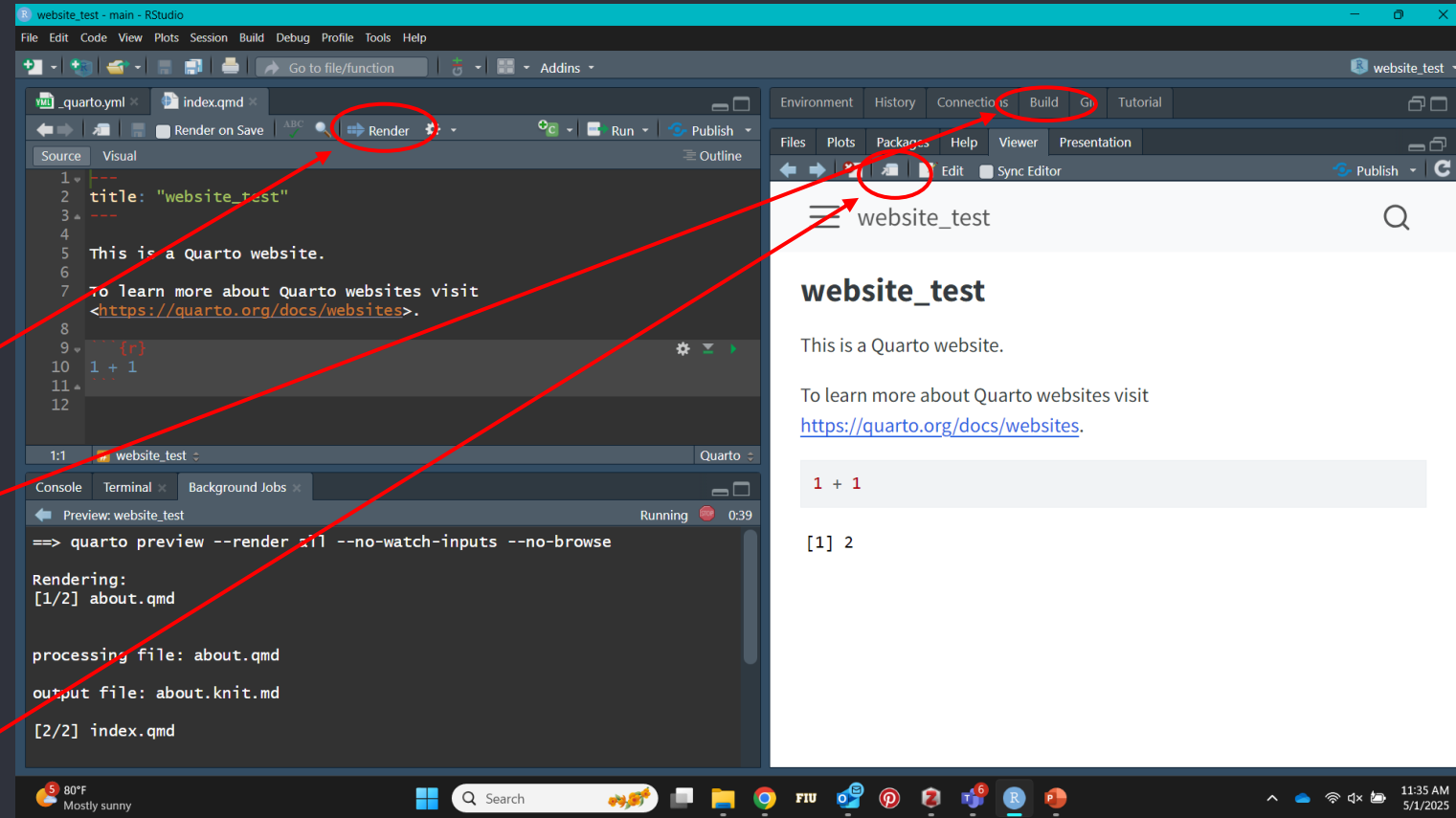
.gitignore & .Rhistory – ignore, not needed for our purposes



Design.qmd

How do these files work together?

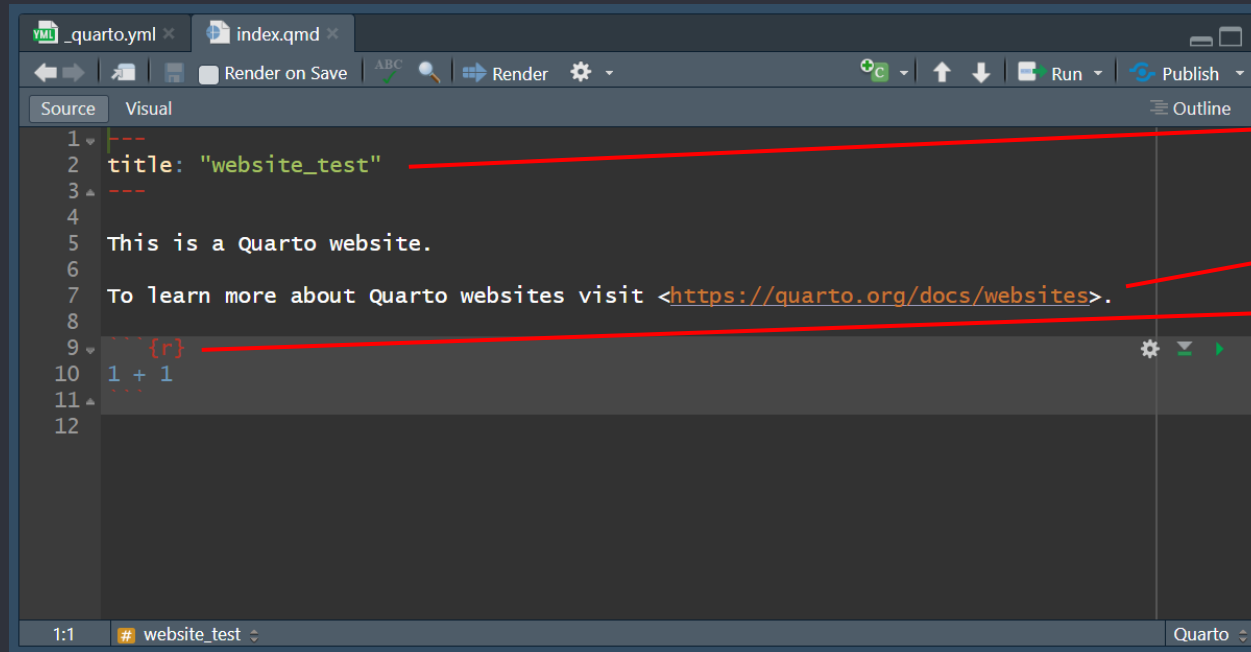
- Let's see by rendering our website:



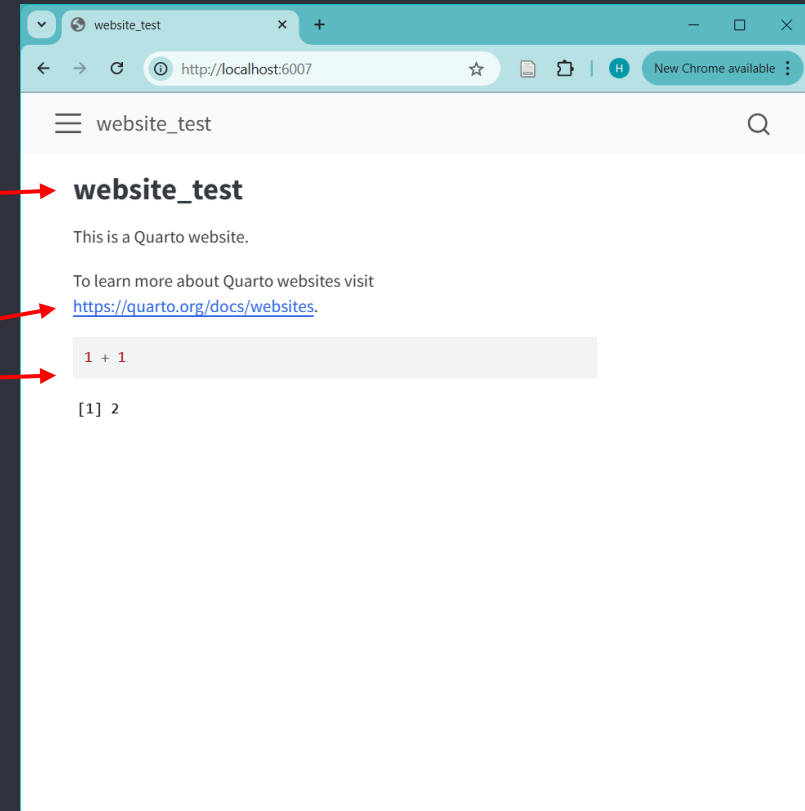
FCE Science Workshop 5.qmd

Design.qmd

Take a few minutes and click around on your website, and compare it to your files in Rstudio... this is the best way to learn the ins and outs of your website.



```
1  ---
2  title: "website_test"
3  ---
4
5  This is a Quarto website.
6
7  To learn more about Quarto websites visit <https://quarto.org/docs/websites>.
8
9  {r}
10 1 + 1
11
12
```

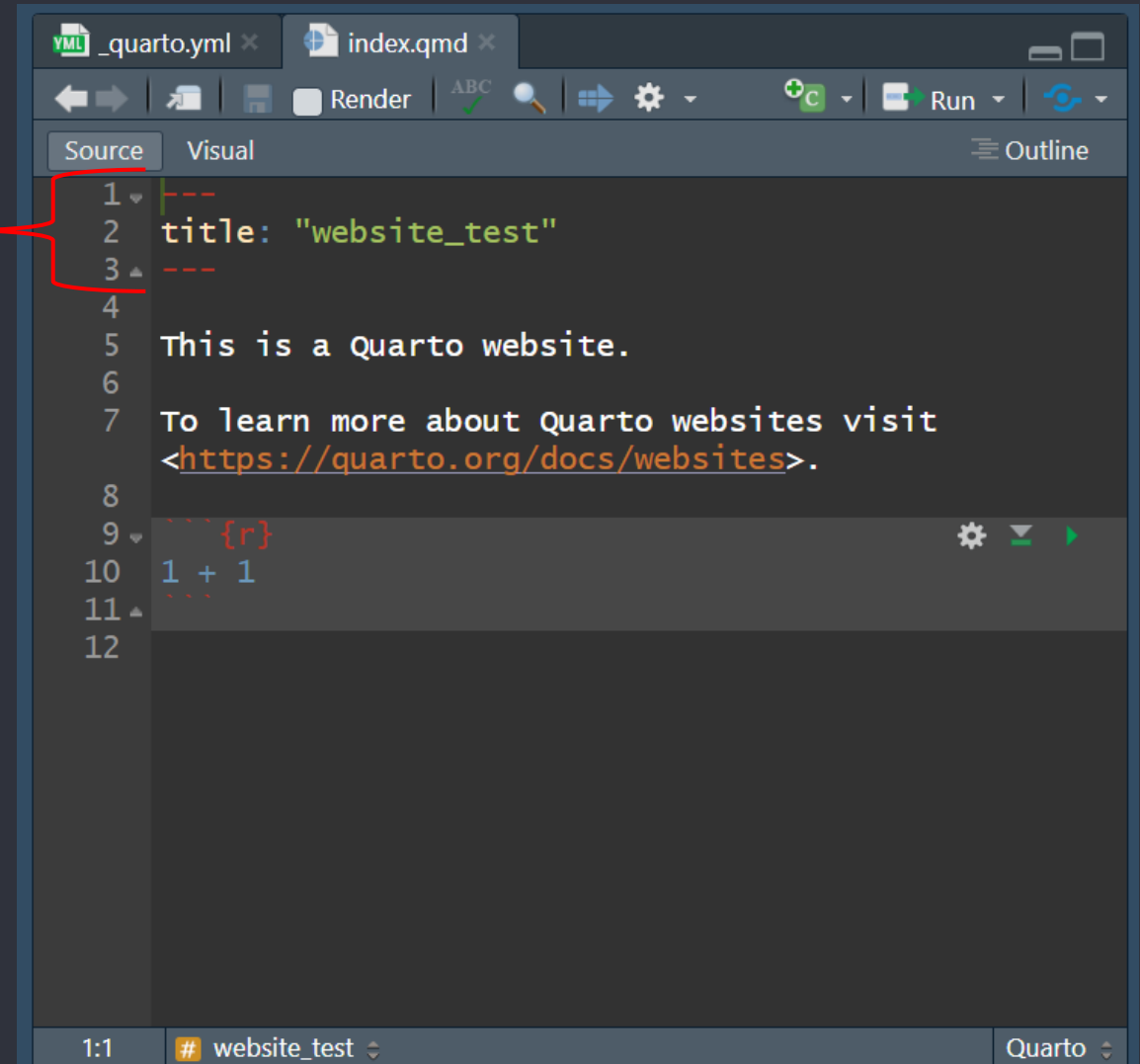


FCE_Science_Workshop_5.qmd

Page-level styling options...

Front matter – yaml block in qmd (same language as our settings file .yml).

- Why have it? Allows us to make page-level design specifications. Putting design in the .yml file will apply to the whole website
- Options for code to put here is quite large... not all are applicable for us with a website and may be better suited for writing papers.
- See options here:
<https://quarto.org/docs/reference/formats/html.html>



The screenshot shows a Quarto editor window with two tabs: `_quarto.yml` and `index.qmd`. The `index.qmd` tab is active, showing the front matter of a QMD file. A red arrow points to the front matter block, which is a YAML block enclosed in three dashes. The content of the front matter is:

```
1 ---
2 title: "website_test"
3 ---
```

Below the front matter, the main content of the QMD file is visible, including a paragraph and a code block:

```
4 This is a Quarto website.
5
6 To learn more about Quarto websites visit
7 <https://quarto.org/docs/websites>.
8
9 {r}
10 1 + 1
11
12
```

The status bar at the bottom shows the file name `website_test` and the Quarto logo.

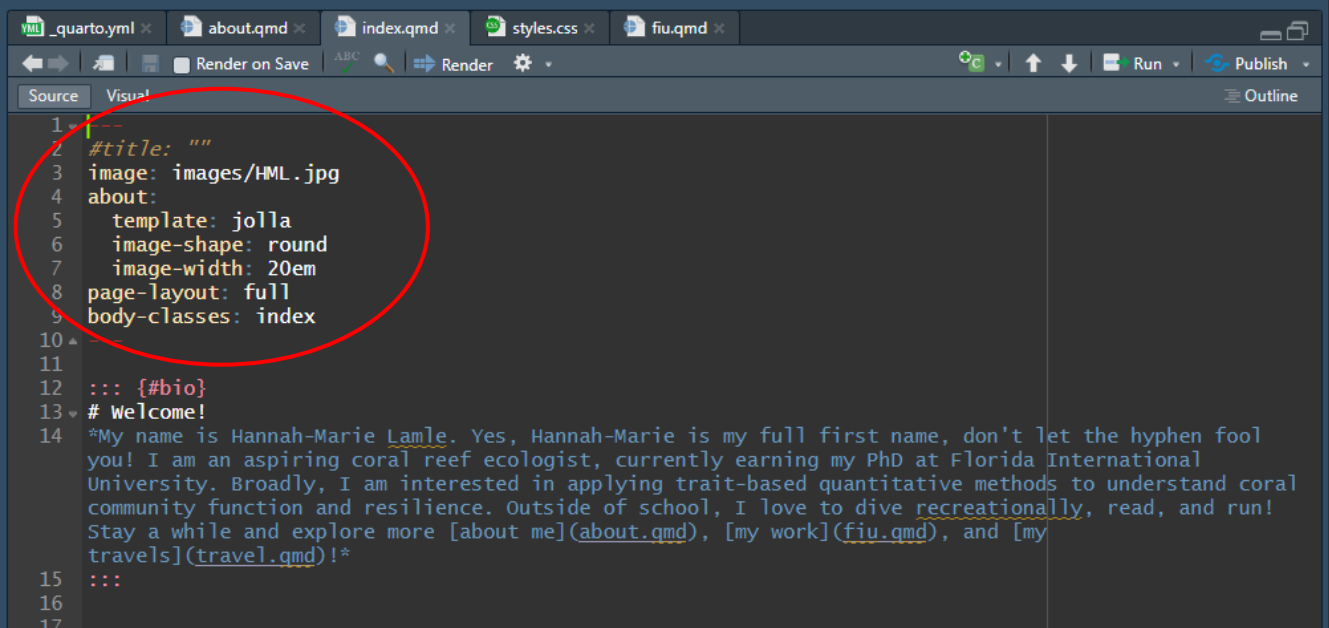
Page-level styling options... “About” page templates

- Quarto has a few pre-made templates that can be used to save time for designing.
- Don’t have to be used for your “about” page. I used mine in the index/landing page.

Options:

- jolla
- trestles
- solana
- marquee
- Broadside

<https://quarto.org/docs/websites/website-about.html>



```
1 ---
2 #title: ""
3 image: images/HML.jpg
4 about:
5   template: jolla
6   image-shape: round
7   image-width: 20em
8 page-layout: full
9 body-classes: index
10
11
12 ::: {#bio}
13 # Welcome!
14 *My name is Hannah-Marie Lamle. Yes, Hannah-Marie is my full first name, don't let the hyphen fool you! I am an aspiring coral reef ecologist, currently earning my PhD at Florida International University. Broadly, I am interested in applying trait-based quantitative methods to understand coral community function and resilience. Outside of school, I love to dive recreationally, read, and run! Stay a while and explore more [about me](about.qmd), [my work](fiu.qmd), and [my travels](travel.qmd)!*
15 :::
16
17
```

Page-level styling options...

Webpage text – can do a lot here...

- Different headings (can go up to 5 subheadings, #####)

italics

****bold****

******bold italics******

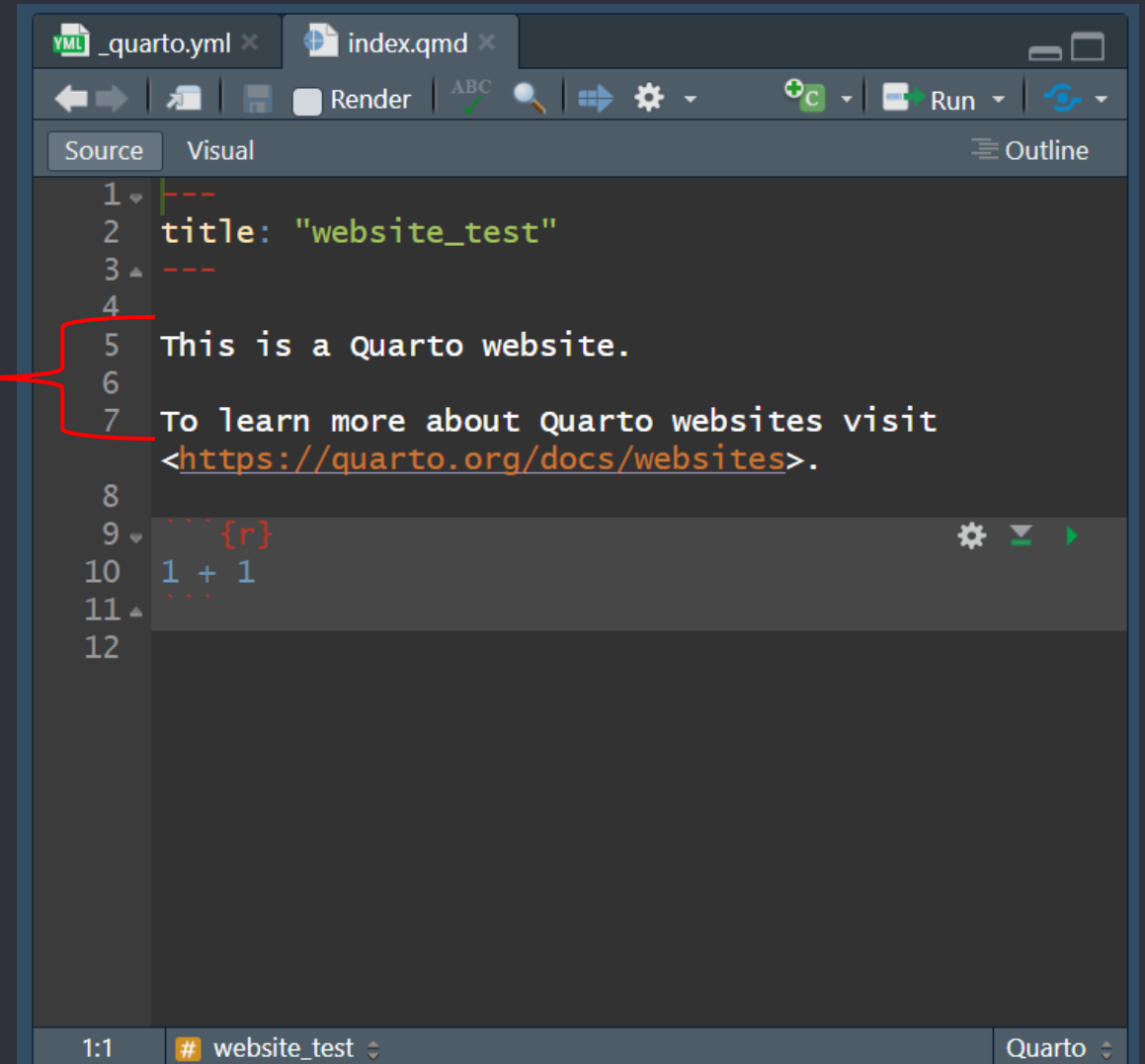
<website link>

[text with link](<https://quarto.org>)

![Caption](image.png)

See more here:

<https://quarto.org/docs/authoring/markdown-basics.html>

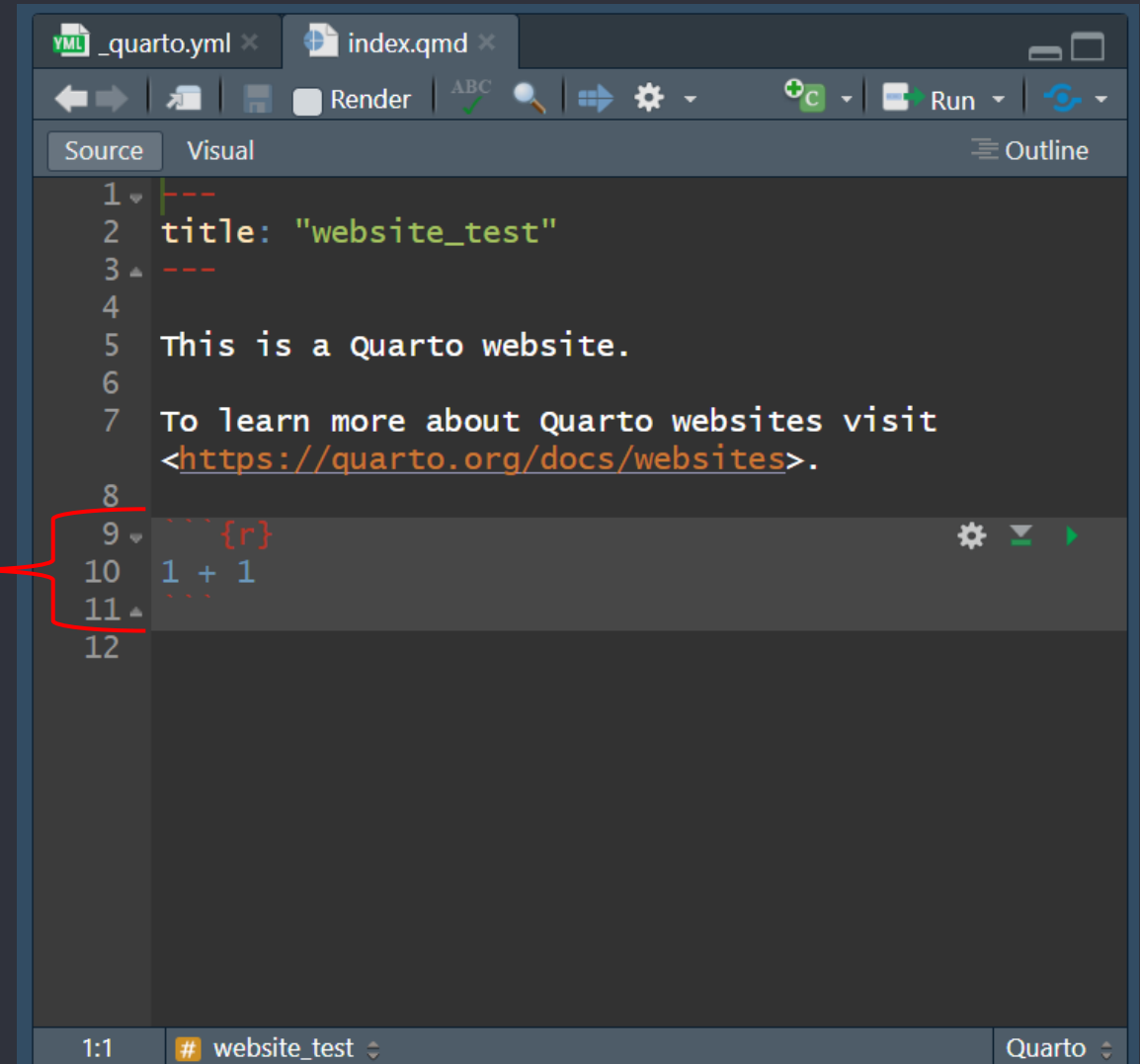


```
1 ---
2 title: "website_test"
3 ---
4
5 This is a Quarto website.
6
7 To learn more about Quarto websites visit
  <https://quarto.org/docs/websites>.
8
9 {r}
10 1 + 1
11
12
```

Page-level styling options...

Code chunk – can show off your coding skills with the raw code and the output, similar to markdown format.

- Code chunk does NOT have to be in R!!
- I use a lot of html code chunks in my lab's website to get custom formatting for my websites.
 - <https://seascapes-fiu.github.io>



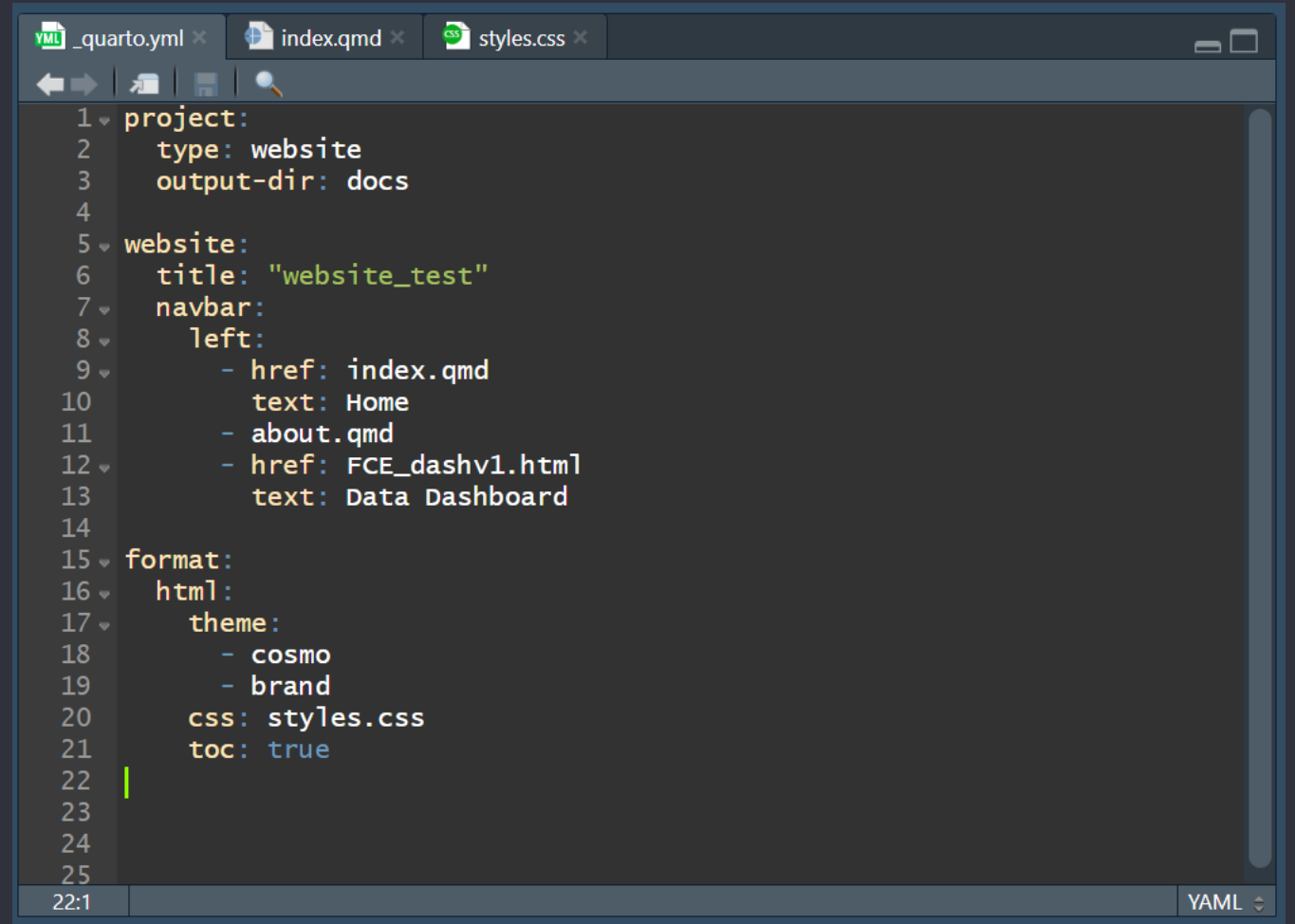
The screenshot shows a Quarto editor window with two tabs: `_quarto.yml` and `index.qmd`. The `index.qmd` tab is active, showing the source view of a document. The document content is as follows:

```
1 ---
2 title: "website_test"
3 ---
4
5 This is a Quarto website.
6
7 To learn more about Quarto websites visit
8 <https://quarto.org/docs/websites>.
9
10 {r}
11 1 + 1
12
```

A red bracket highlights the code chunk starting at line 9. The chunk is an R chunk, indicated by the `{r}` header. The code inside the chunk is `1 + 1`. The editor interface includes a toolbar with buttons for navigation, rendering, and running, as well as an 'Outline' panel on the right. The status bar at the bottom shows the current position (1:1), the active chunk name (`# website_test`), and the Quarto logo.

YAML styling options...

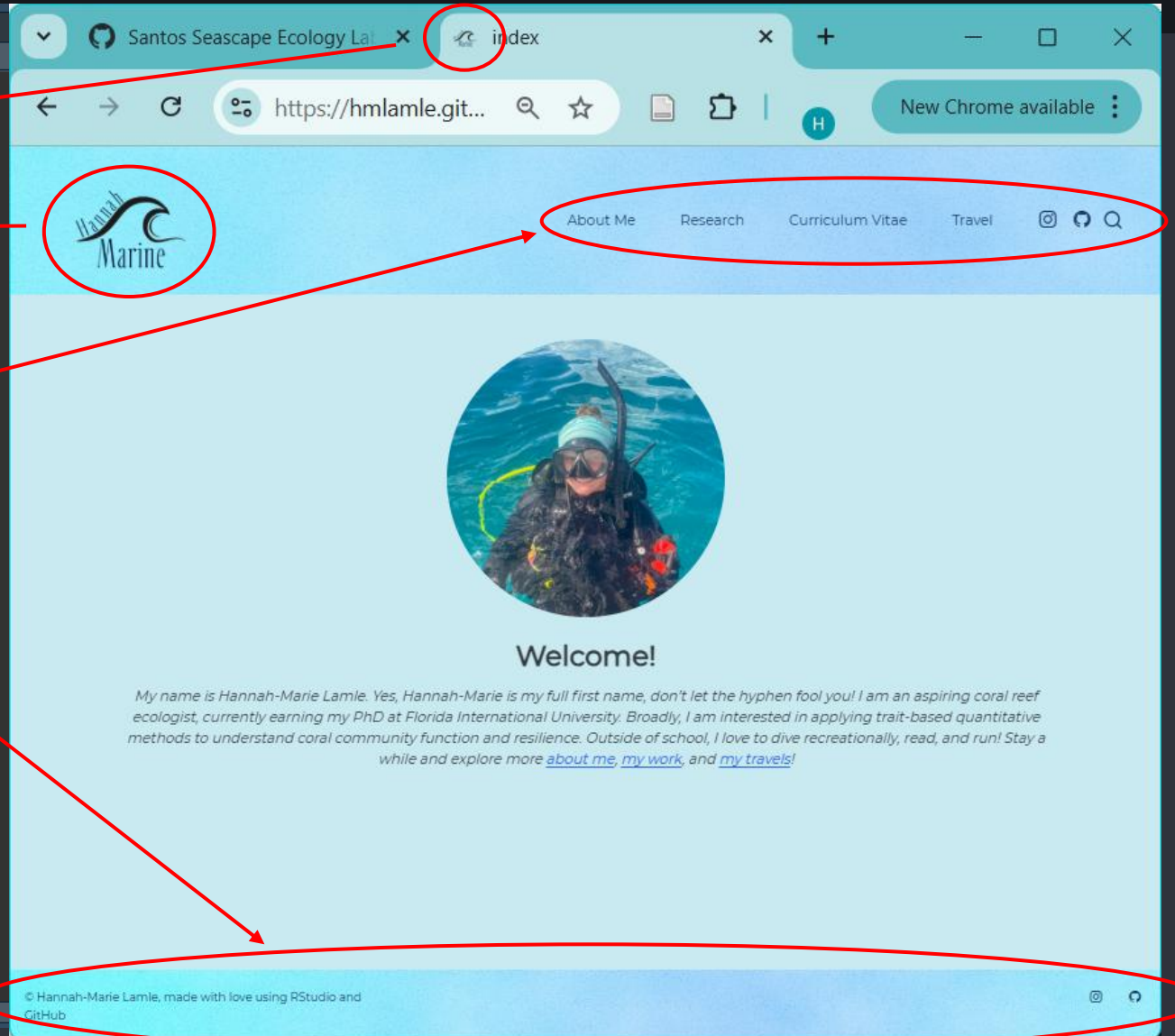
- We already changed this once to include the output directory to be “docs” (compatible with GitHub pages)
- There are many more options to make websites your own:
 - Designing the navbar
 - Including pages
 - Adding a footer
 - Changing the title and logo
 - Links to your socials, GitHub, etc
 - Even more, found here:
<https://quarto.org/docs/reference/projects/websites.html>



```
1 project:
2   type: website
3   output-dir: docs
4
5 website:
6   title: "website_test"
7   navbar:
8     left:
9       - href: index.qmd
10         text: Home
11       - about.qmd
12       - href: FCE_dashv1.html
13         text: Data Dashboard
14
15 format:
16   html:
17     theme:
18       - cosmo
19       - brand
20     css: styles.css
21     toc: true
22
23
24
25
```

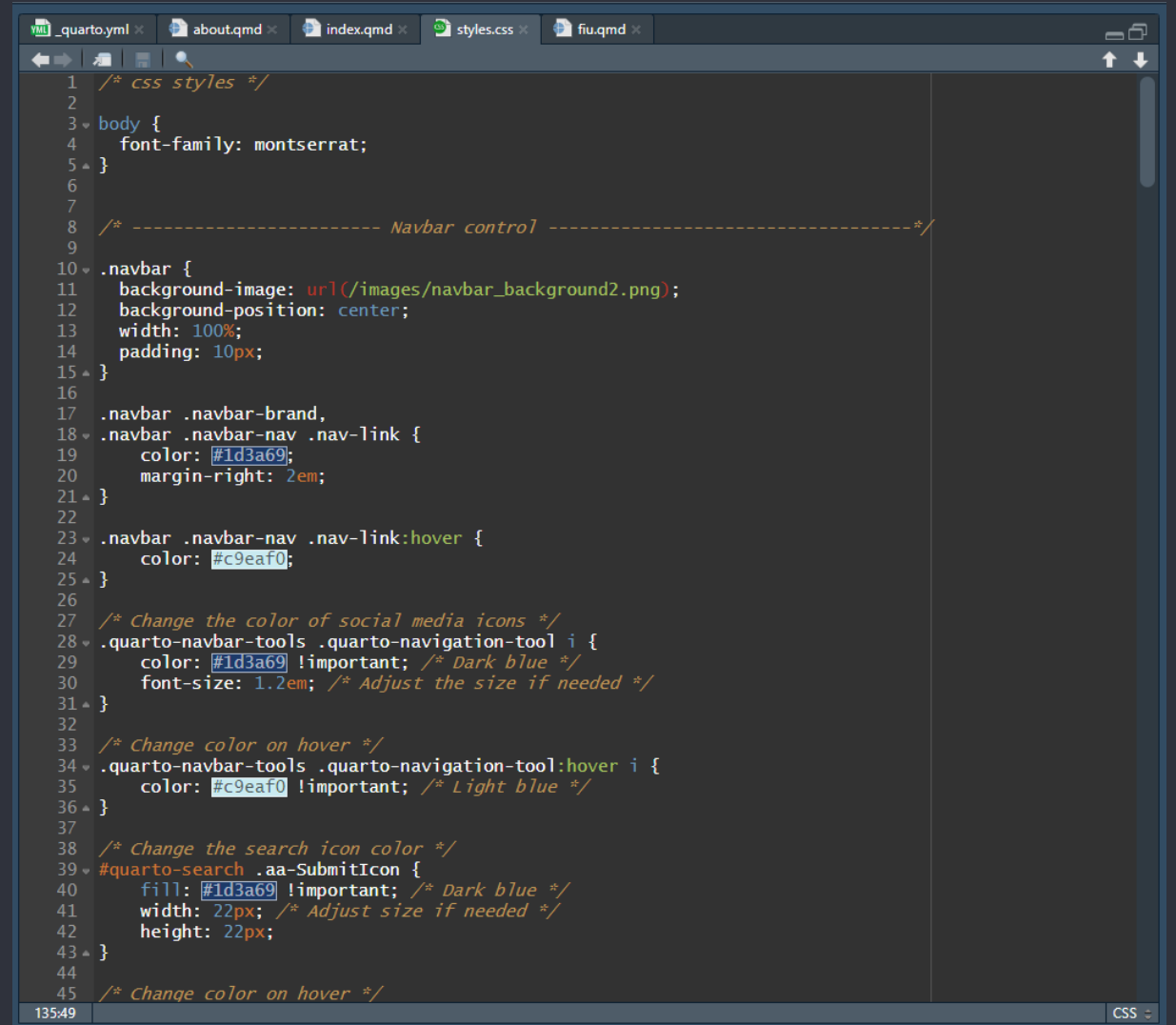
Design.qmd

```
1 project:
2   type: website
3   output-dir: docs
4
5 website:
6   favicon: 'images/logo.png'
7   navbar:
8     logo: 'images/logo.png'
9     right:
10      - about.qmd
11      - text: "Research"
12        href: fiu.qmd
13      - CV.qmd
14      - text: "Travel"
15        href: travel.qmd
16   tools:
17     - icon: instagram
18       href: https://www.instagram.com/hannah_marine.e/
19     - icon: bluesky
20       href: https://bsky.app/profile/hannah-marine.bsky.social
21     - icon: github
22       href: https://github.com/hmlamle
23   toggle-position: right
24   tools-collapse: true
25
26 page-footer:
27   left: © Hannah-Marie Lamle, made with love using RStudio and GitHub
28   right:
29     - icon: instagram
30       href: https://www.instagram.com/hannah_marine.e/
31     - icon: bluesky
32       href: https://bsky.app/profile/hannah-marine.bsky.social
33     - icon: github
34       href: https://github.com/hmlamle
35
36 format:
37   html:
38     theme: cosmo
39     css: styles.css
40     toc: false
41
42
43
44
```



Styles.css file: even more customization for your website.

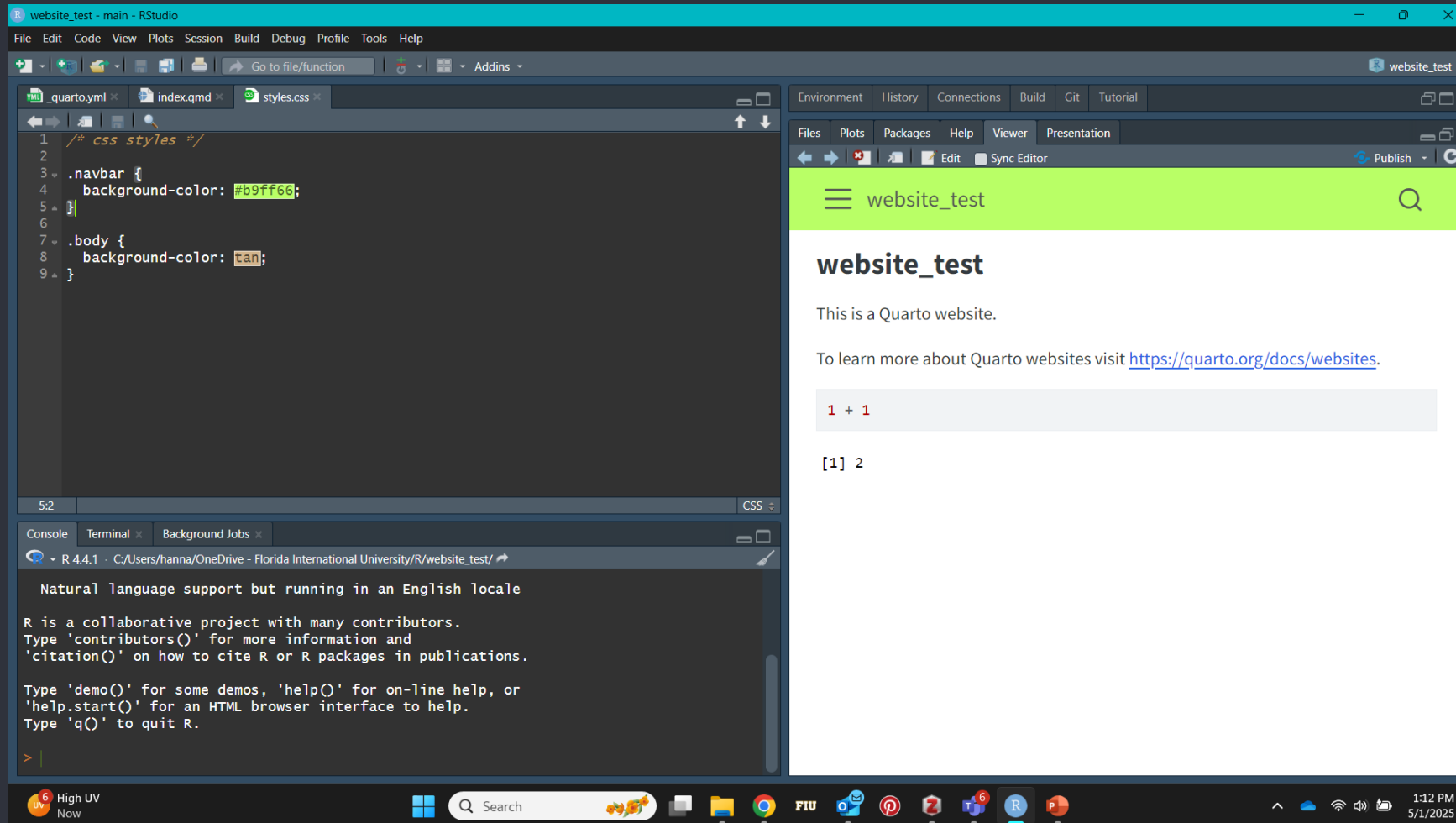
- Notice that the styles.css file is automatically applied in the yml, but sheet itself is empty.
- Different language!
- More recently, been seeing people's websites using .scss files, and Quarto website encourages use (<https://quarto.org/docs/output-formats/html-themes.html#theme-options>)
- Work in progress for me to shift websites over to .scss file.
 - https://github.com/twbs/bootstrap/blob/main/scss/_variables.scss



```
1  /* css styles */
2
3  body {
4    font-family: montserrat;
5  }
6
7
8  /* ----- Navbar control ----- */
9
10 .navbar {
11   background-image: url(/images/navbar_background2.png);
12   background-position: center;
13   width: 100%;
14   padding: 10px;
15 }
16
17 .navbar .navbar-brand,
18 .navbar .navbar-nav .nav-link {
19   color: #1d3a69;
20   margin-right: 2em;
21 }
22
23 .navbar .navbar-nav .nav-link:hover {
24   color: #c9eaf0;
25 }
26
27 /* Change the color of social media icons */
28 .quarto-navbar-tools .quarto-navigation-tool i {
29   color: #1d3a69 !important; /* Dark blue */
30   font-size: 1.2em; /* Adjust the size if needed */
31 }
32
33 /* Change color on hover */
34 .quarto-navbar-tools .quarto-navigation-tool:hover i {
35   color: #c9eaf0 !important; /* Light blue */
36 }
37
38 /* Change the search icon color */
39 #quarto-search .aa-SubmitIcon {
40   fill: #1d3a69 !important; /* Dark blue */
41   width: 22px; /* Adjust size if needed */
42   height: 22px;
43 }
44
45 /* Change color on hover */
```

Design.qmd

Quick example (you try too!):



FCE_Science_Workshop_5.qmd

Design.qmd

BONUS: Adding your r dashboard to your website?

The screenshot shows the RStudio interface with the following components:

- Left Pane (Editor):** Displays the `_quarto.yml` file. The `navbar` section is expanded, and the entry for `FCE_dashv1.html` is circled in red.
- Right Pane (File Explorer):** Shows the file structure of the project. The file `FCE_dashv1.html` is circled in red.
- Bottom Pane (Console):** Shows the output of the R session, including the message "Natural language support but running in an English locale" and the R help text.

Red arrows point from the circled elements to the instructions on the right:

- Arrow 1 points from the `FCE_dashv1.html` entry in the navbar to the first instruction.
- Arrow 2 points from the `FCE_dashv1.html` file in the file explorer to the second instruction.
- Arrow 3 points from the `Build` button in the top right of the RStudio window to the third instruction.

1. Copy your dashboard html file into your working directory
2. Add it to the navbar in the yml file
3. Build website..

FCE_Science_Workshop_5.qmd

Design.qmd

Done? Save, commit, push changes!

The screenshot shows the RStudio interface with the 'website_test' project. The left pane displays the 'index.qmd' file with a YAML front-matter and a list of links. The right pane shows the 'Git' tab with a table of staged files. The 'Commit' button is highlighted with a red circle. The bottom pane shows the console output and a sidebar with information about the Florida Coastal Everglades R Workshop.

Staged	Status	Path
<input checked="" type="checkbox"/>	M	.gitignore
<input checked="" type="checkbox"/>	A	FCE_dashv1.html
<input checked="" type="checkbox"/>	M	_quarto.yml
<input checked="" type="checkbox"/>	M	styles.css
<input checked="" type="checkbox"/>	M	.quarto/project-cache/deno-kv-file
<input checked="" type="checkbox"/>	A	docs/FCE_dashv1.html
<input checked="" type="checkbox"/>	A	docs/about.html
<input checked="" type="checkbox"/>	A	docs/index.html

Florida Coastal Everglades R Workshop
Swamp Pirate

Information

Note: The information below along with associated graphics was generated using provisional data and it is subject to change.

- DBHYDRO Insights
- EDEN
- Florida Coastal Everglades

Interactive Plot Instructions

- All graphs are interactive, with information on the station on a particular day

1. Go to Git tab

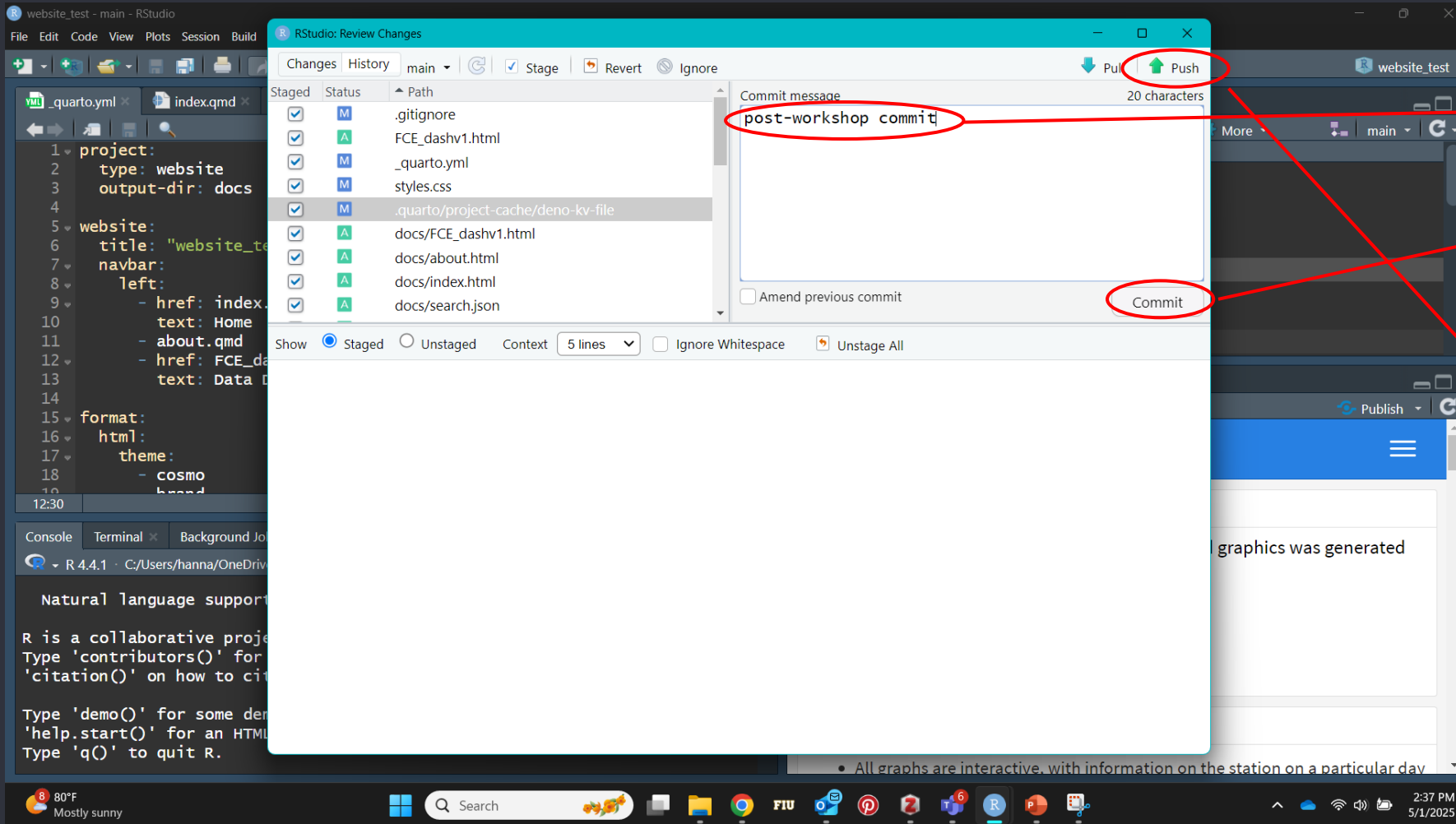
2. Check all files

3. Commit changes

FCE_Science_Workshop_5.qmd

Design.qmd

Done? Save, commit, push changes!



1. Write commit message (the shorter the better)

2. Commit

3. Push changes

4. (not shown) go back to GitHub and check your deployments, should not fail now and you will have a working website!

FCE_Science_Workshop_5.qmd

