FCE_Science_Workshop_5.qmd

```
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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
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13
14
```
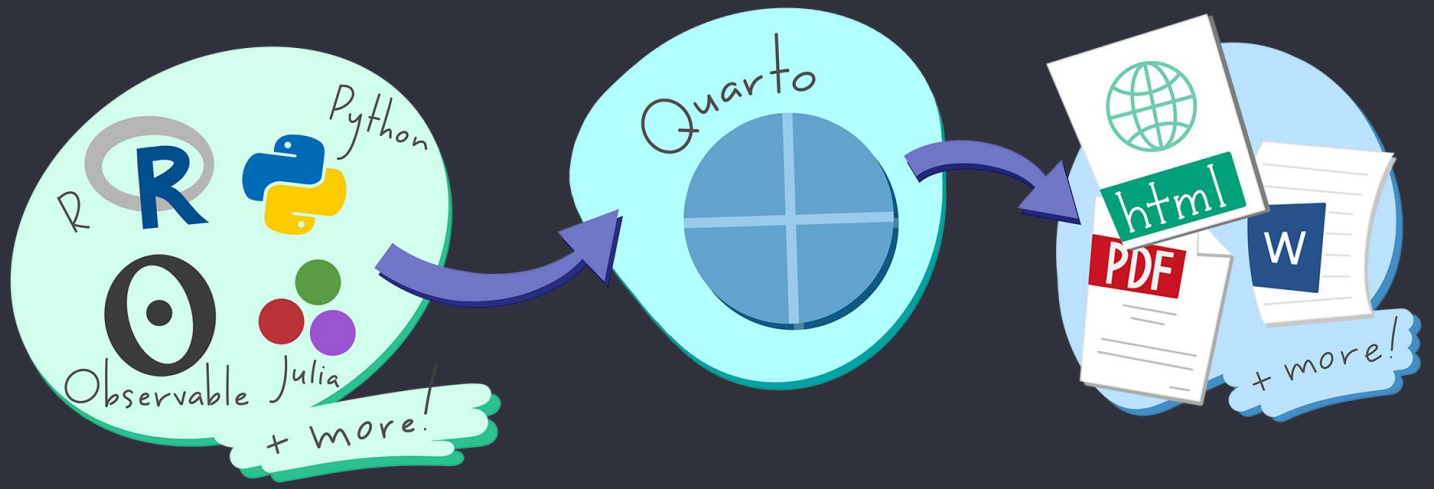

Overview.qmd

- **Introduction to Quarto**
  - What is it?
  - Download Quarto
- **Set Up**
  - Create a new Quarto website
  - Create a GitHub repository
  - Pushing website to Github + launch
- **Design!!**
  - Quarto website files and vocabulary
  - Markdown formatting
  - BONUS: Publishing a Dashboard!!

What is Quarto?

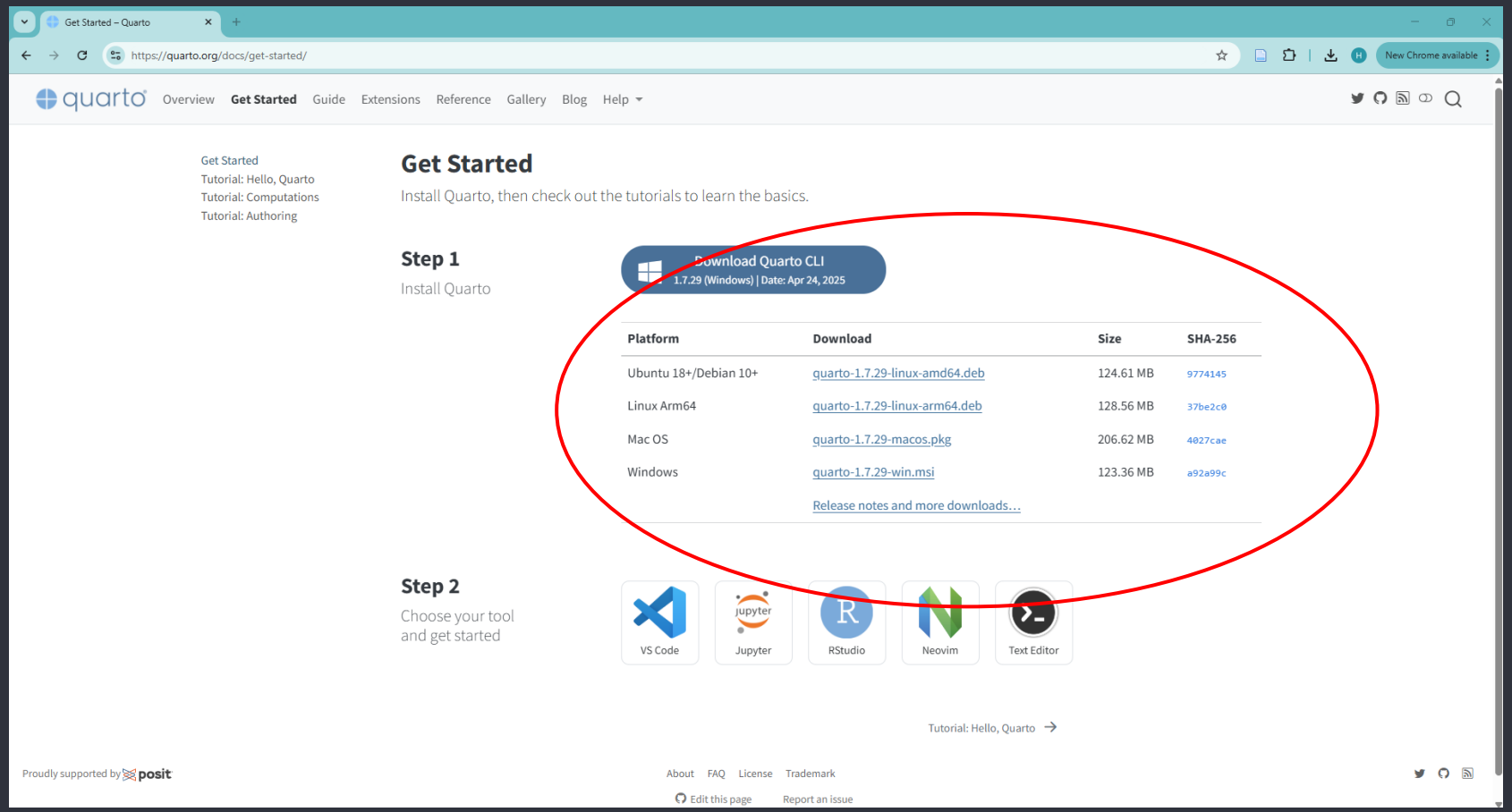
- “An open-source scientific and technical publishing system” - https://quarto.org/
- Similar to LaTex, create documents (markdown files) presentations, blogs, dashboards, websites using a coding tool (python, Rstudio, etc)



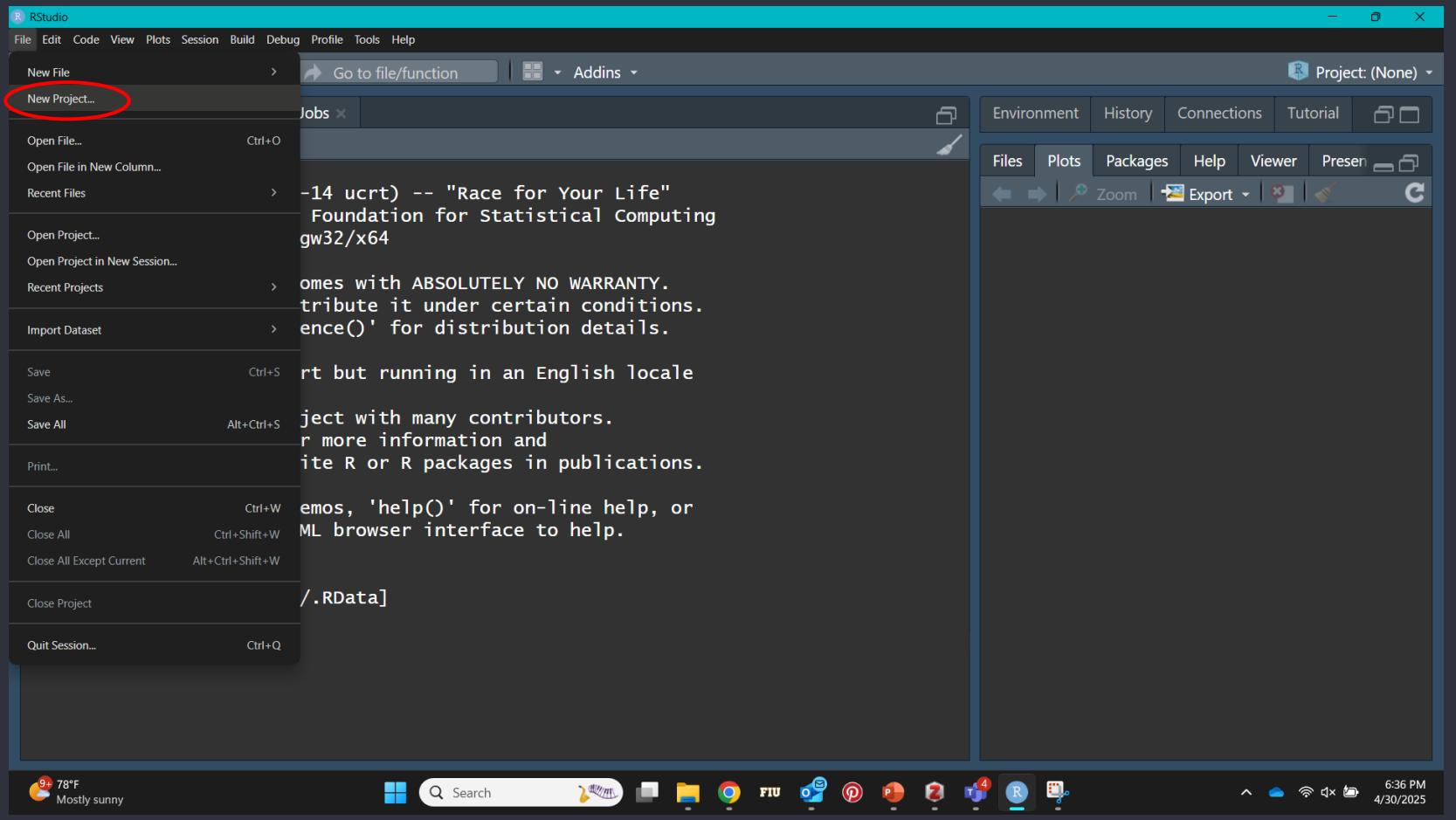
Ready? Let's go!

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

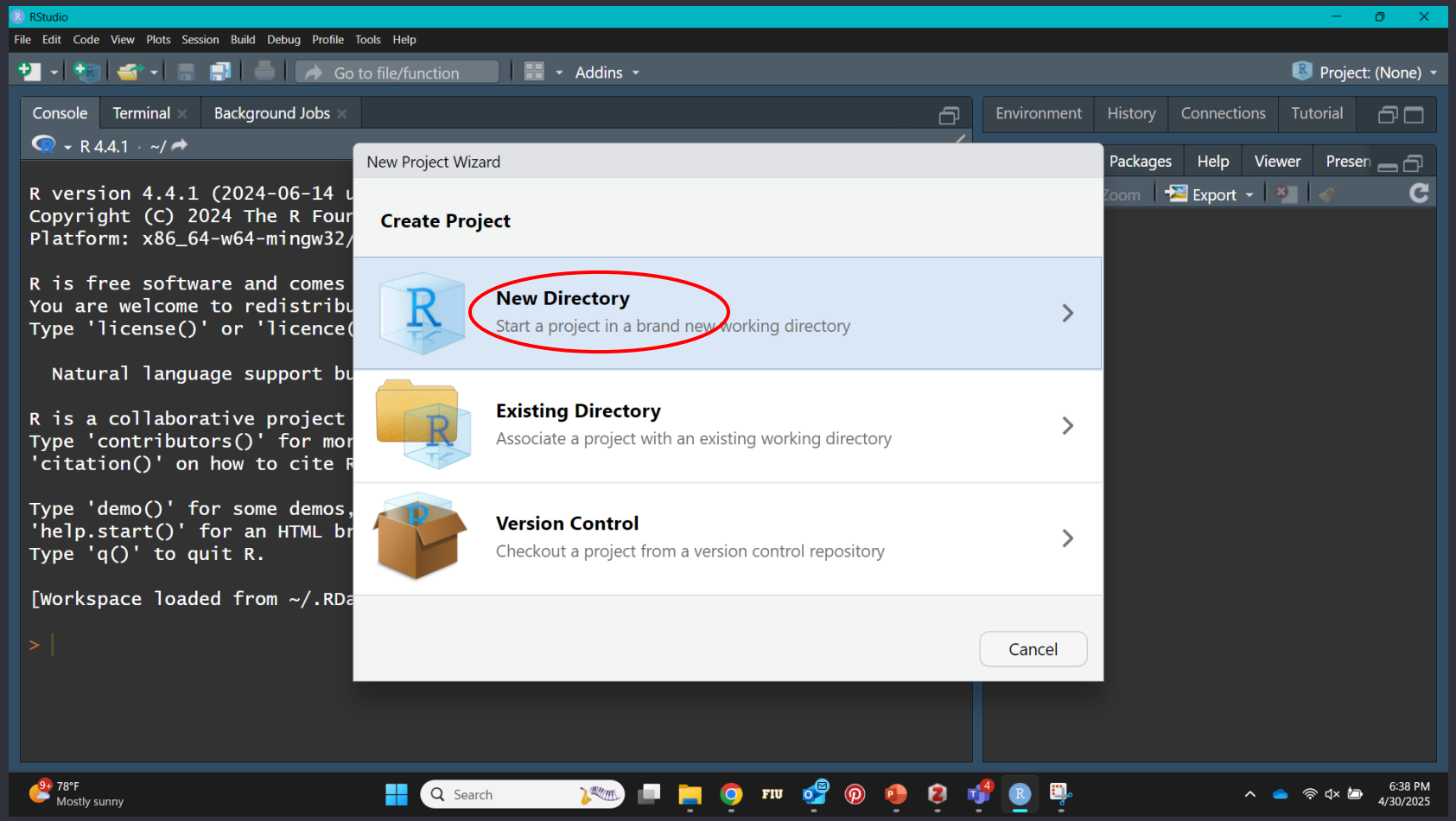
Download Quarto: https://quarto.org/docs/get-started/



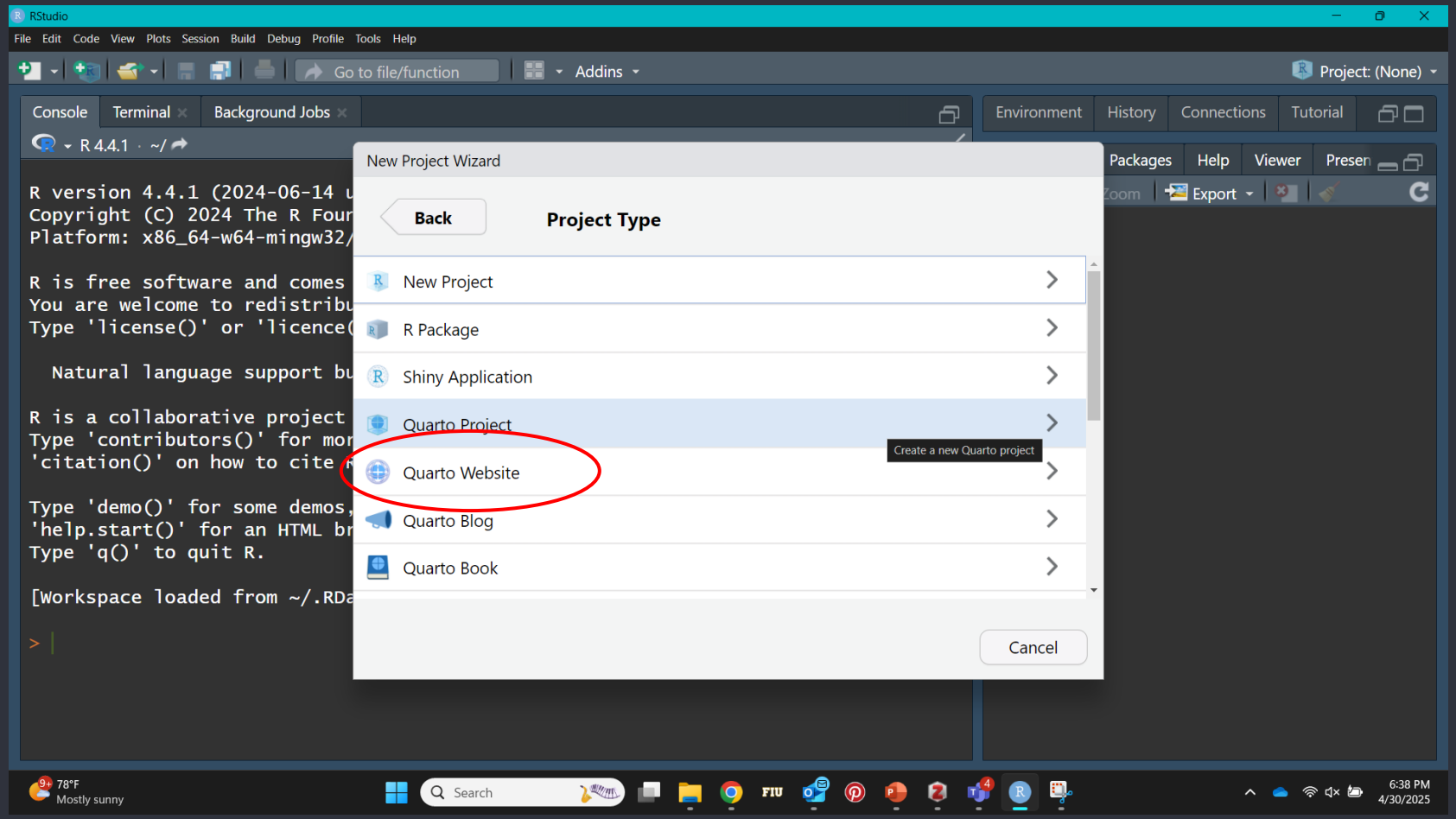
Create a new Quarto Website: file > new project



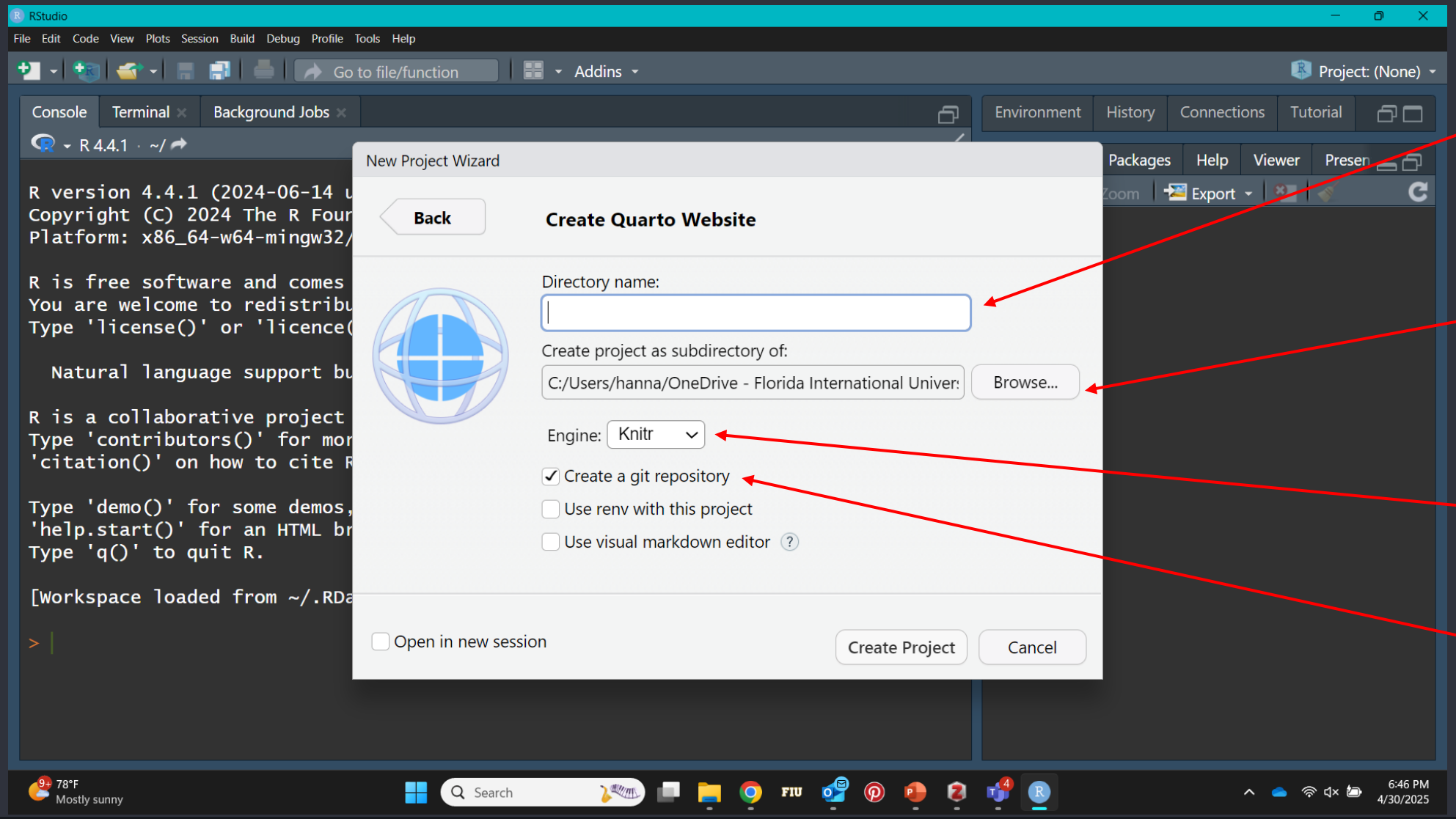
Create a new Quarto Website: New Directory



Create a new Quarto Website: Quarto Website



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

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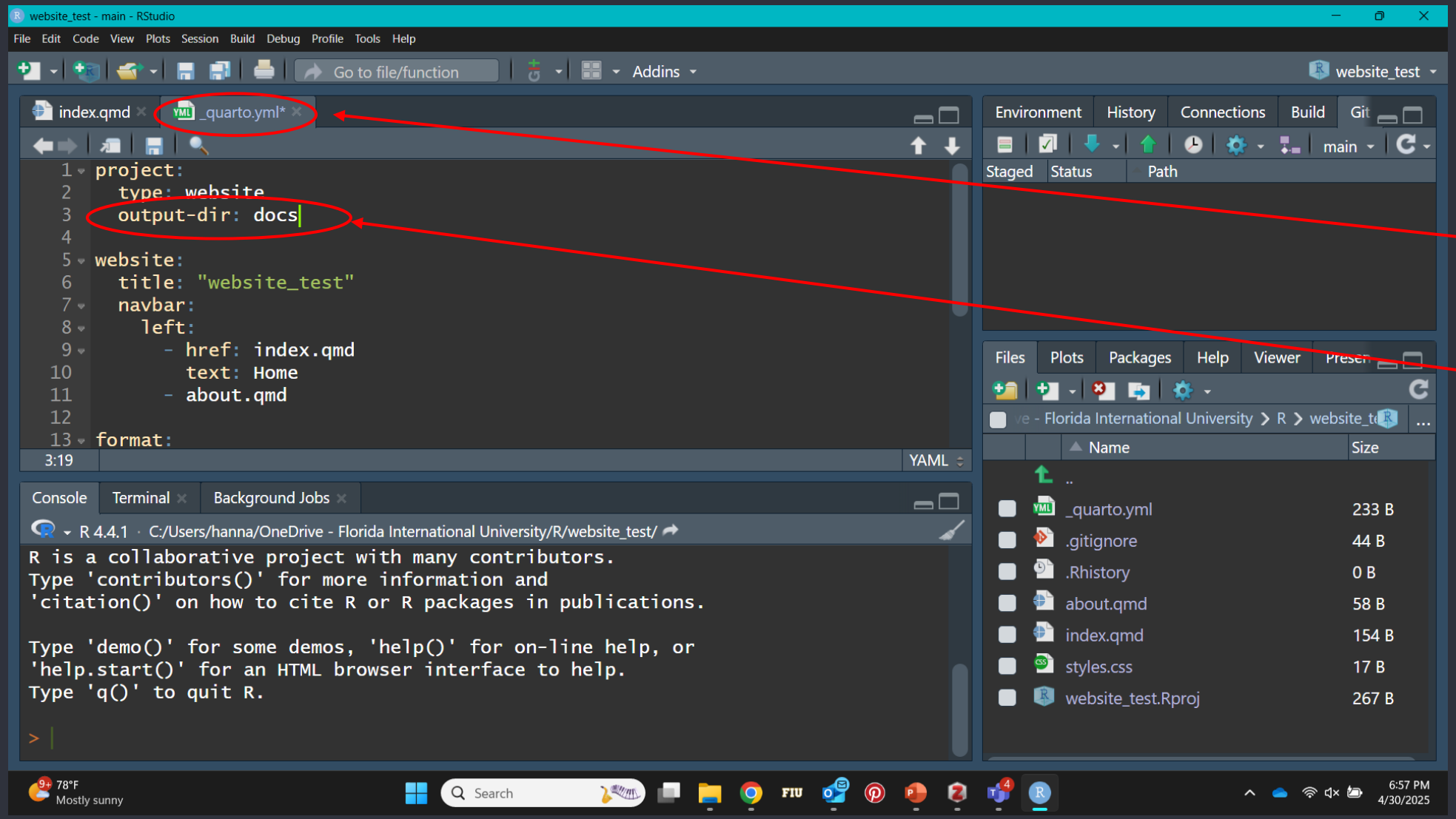
Set_Up.qmd



You have a website!!

1. Go to "_quarto.yml" document

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

3. SAVE!!

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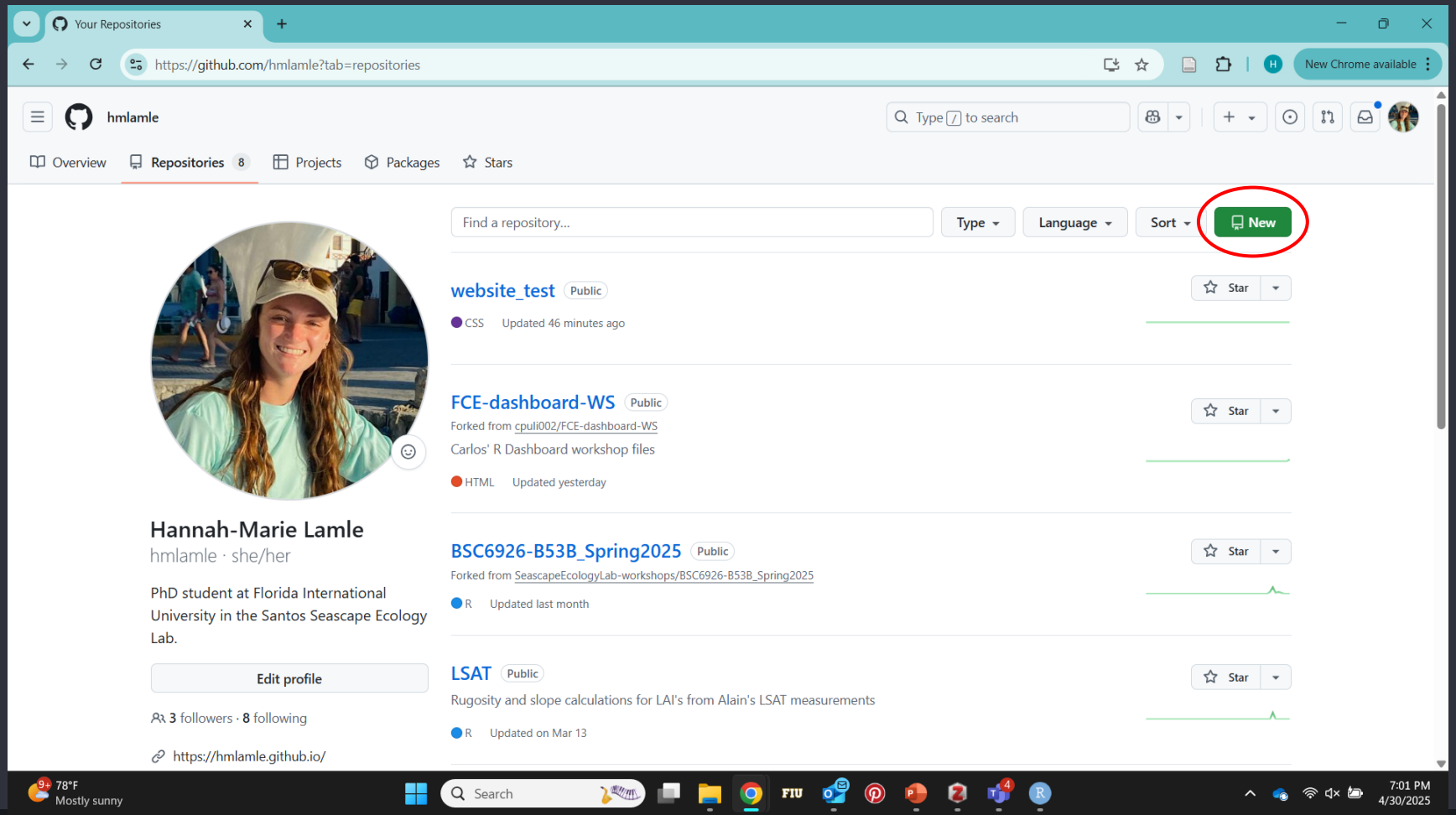
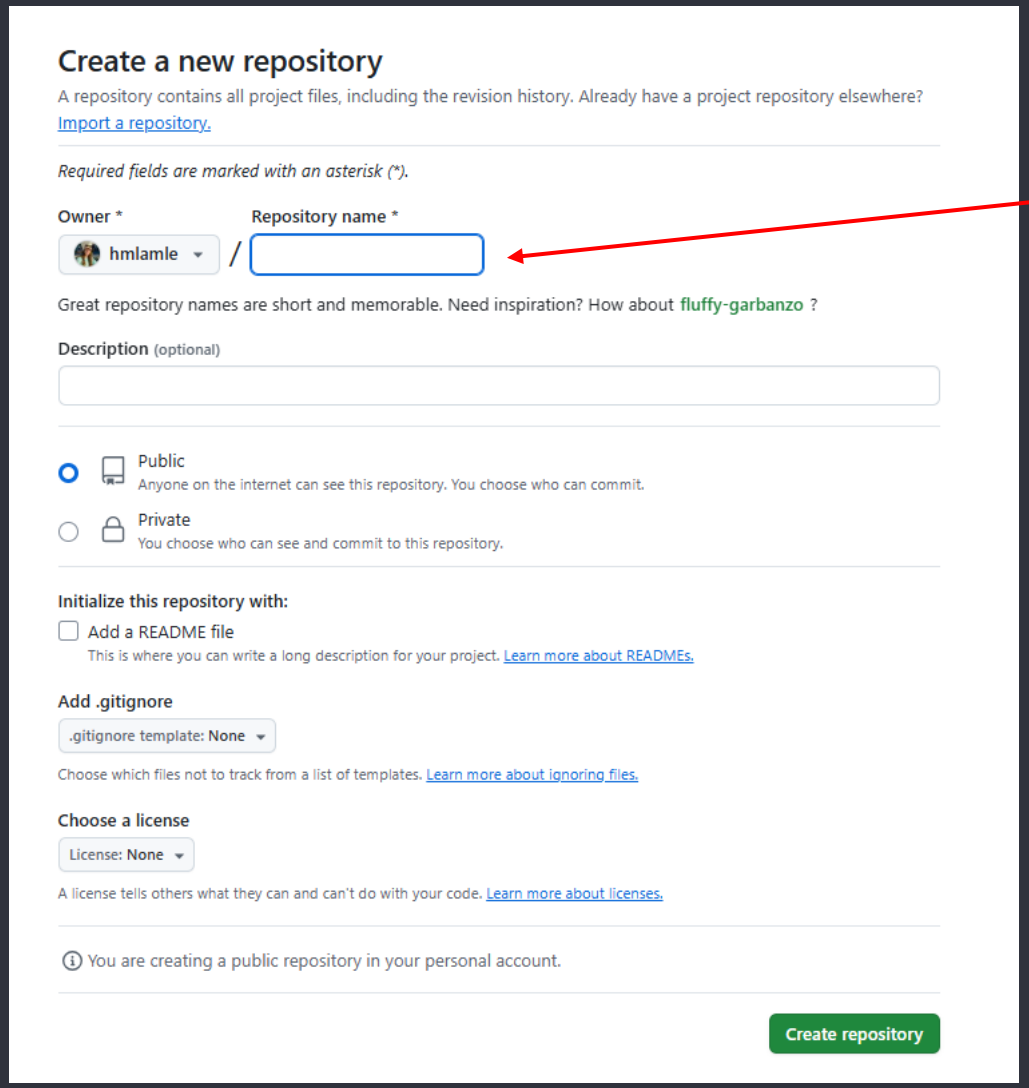
Switch to GitHub.. Create new repository to host website



Set_Up.qmd



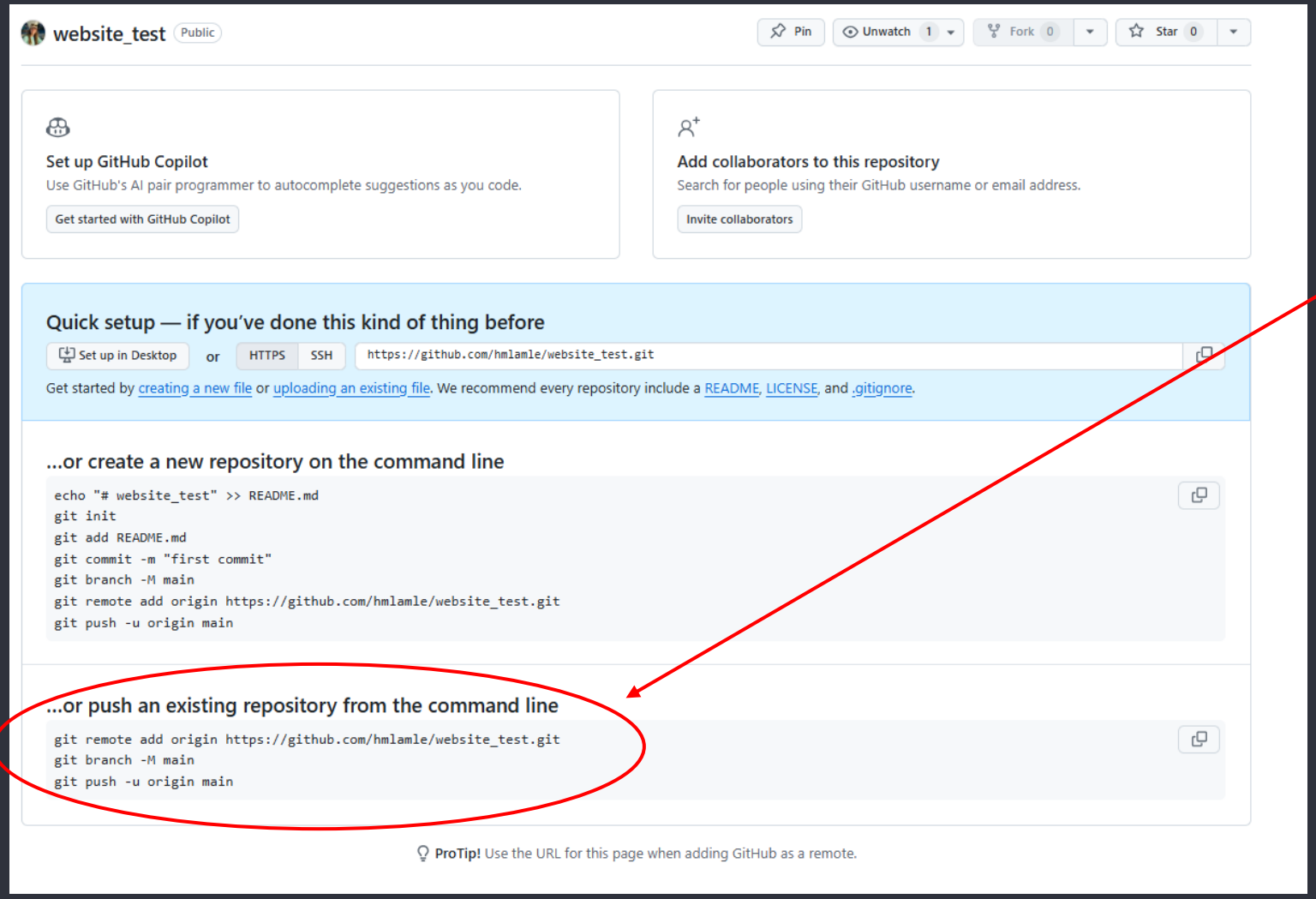
Name of repository will be website URL. Example:

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

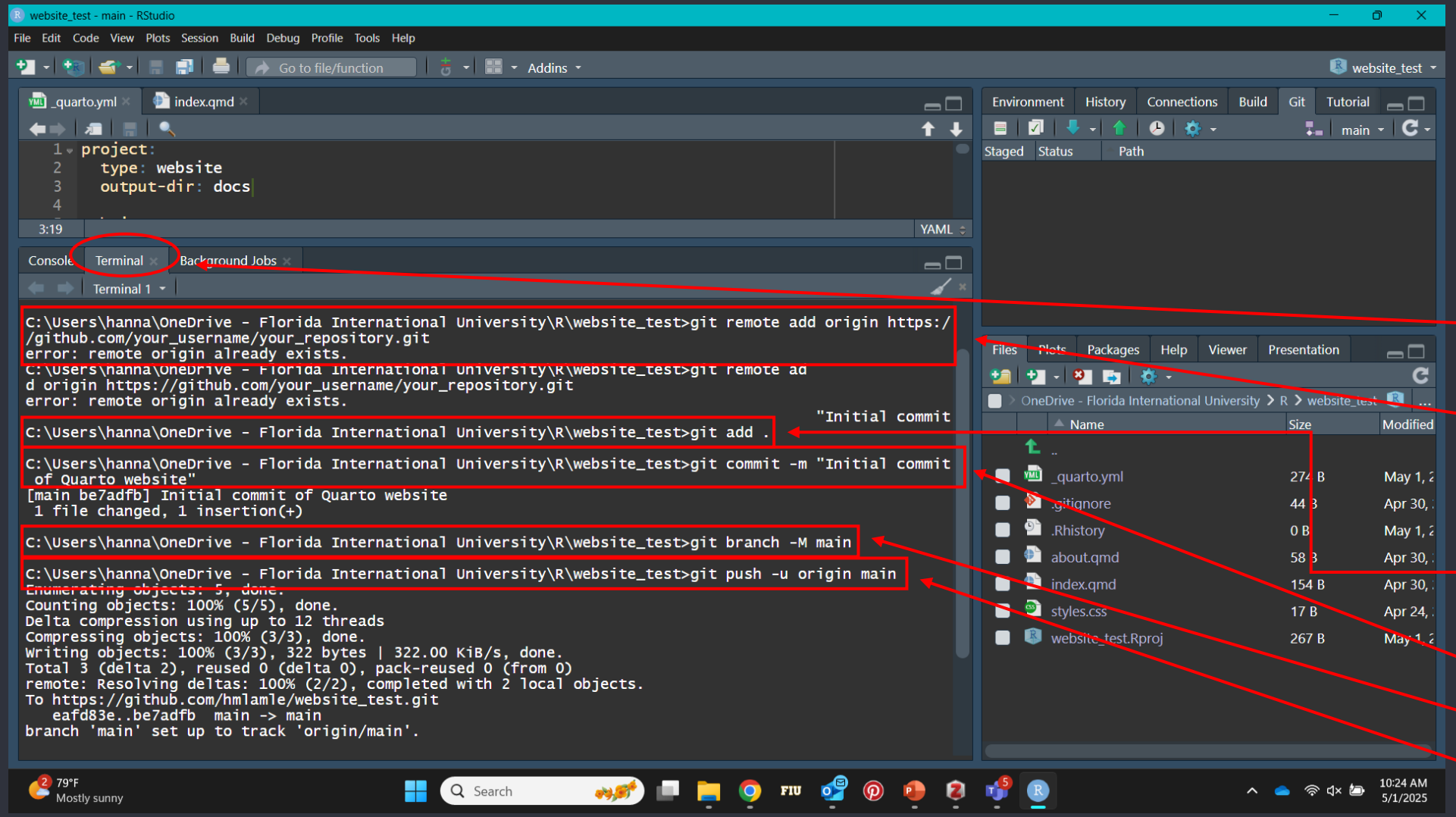


Since we already have an existing Git repo (we created one when we created the website in Rstudio) we just need to push it to our new GitHub repo...

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.

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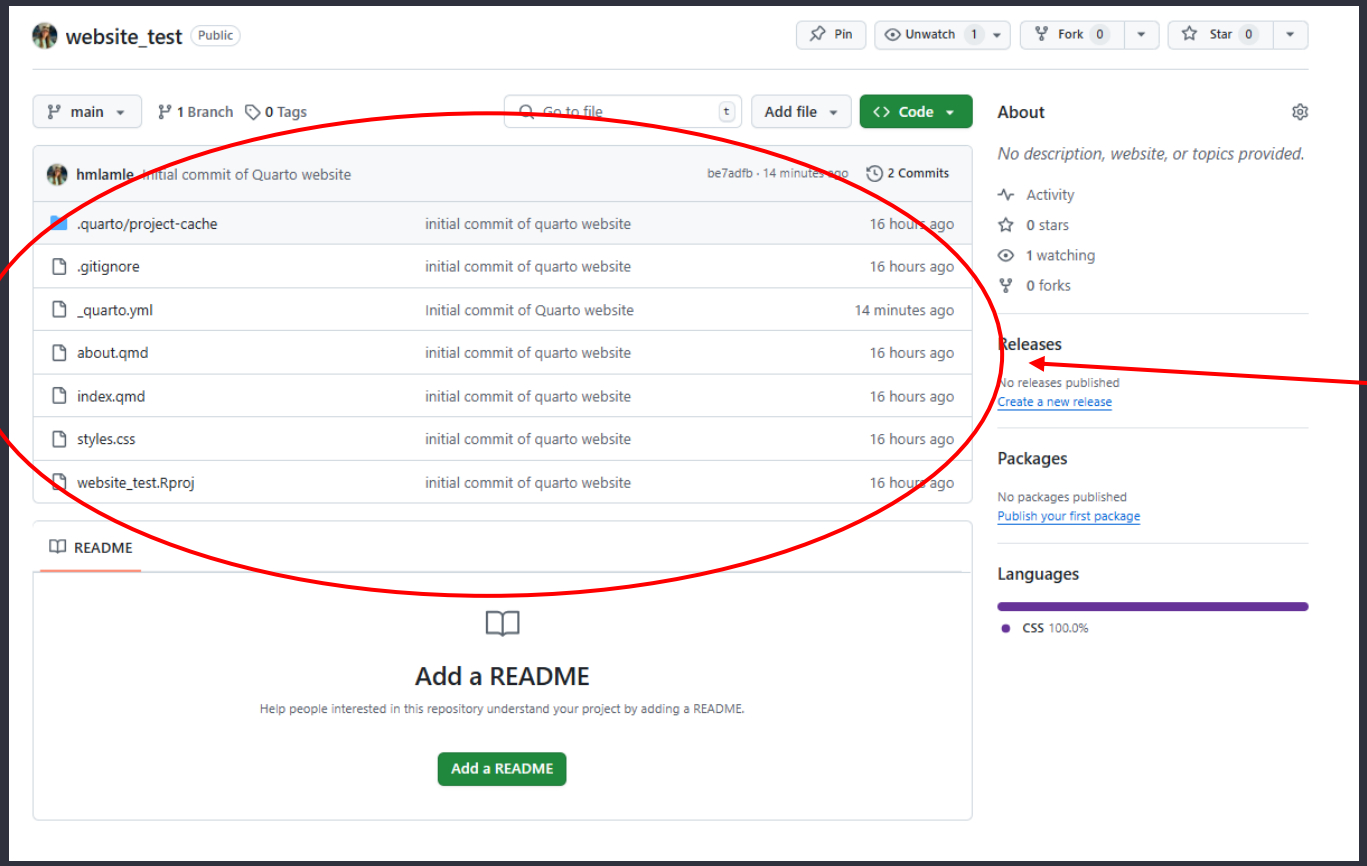
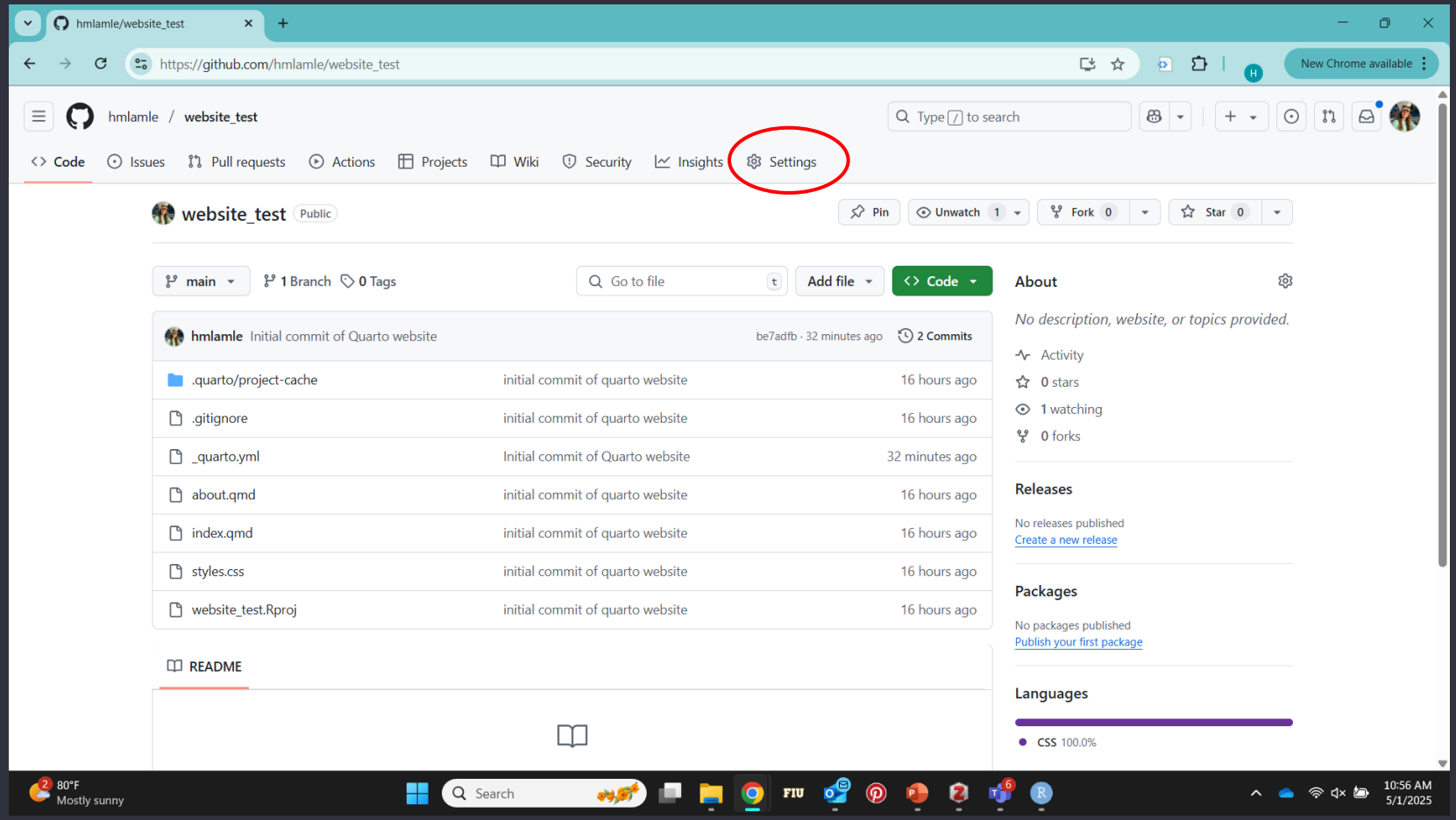
Back to GitHub AGAIN (last time I promise) to ensure communication...

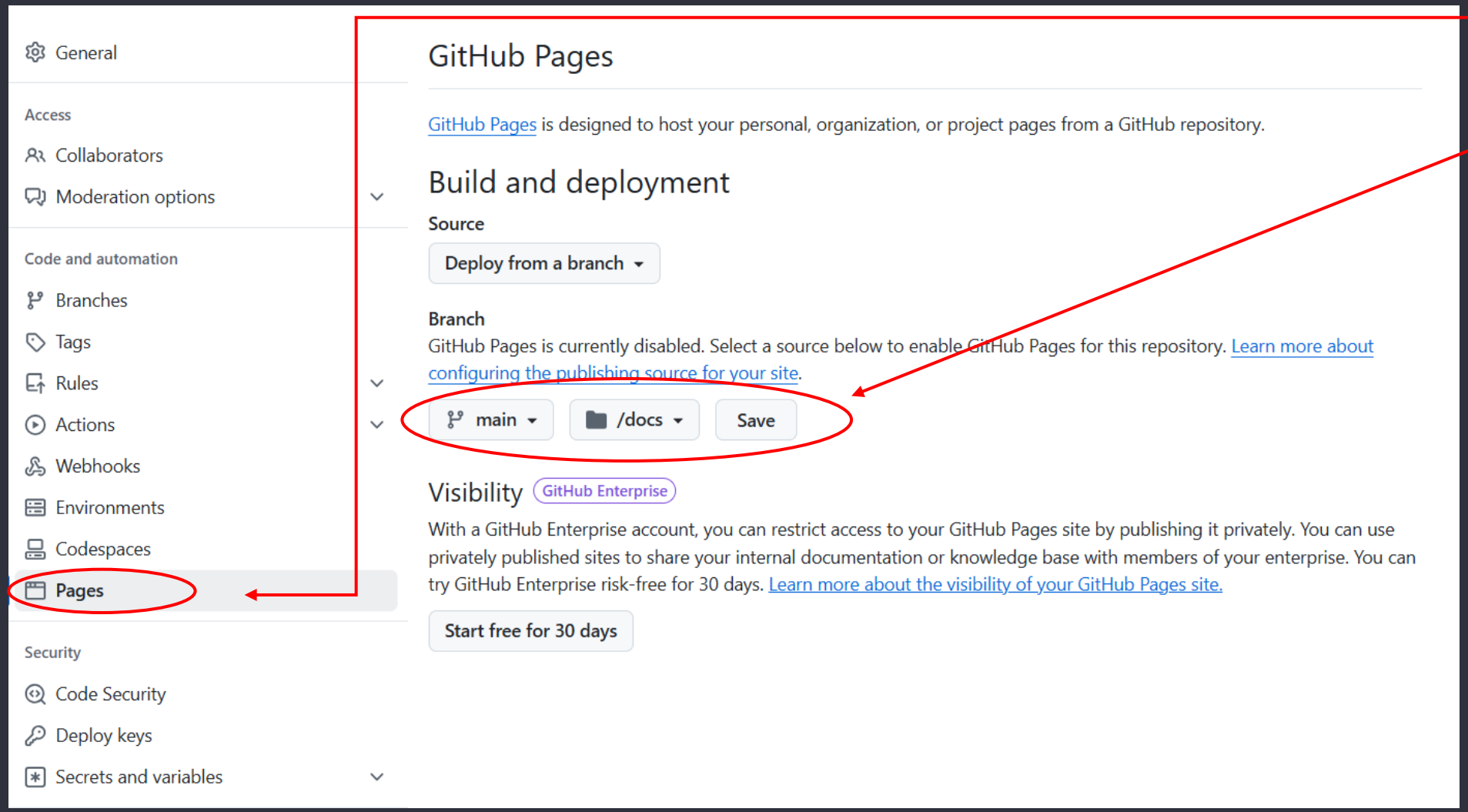


Should see all of our files now and time should be 1 minute ago

And launch website!!



Set_Up.qmd



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:

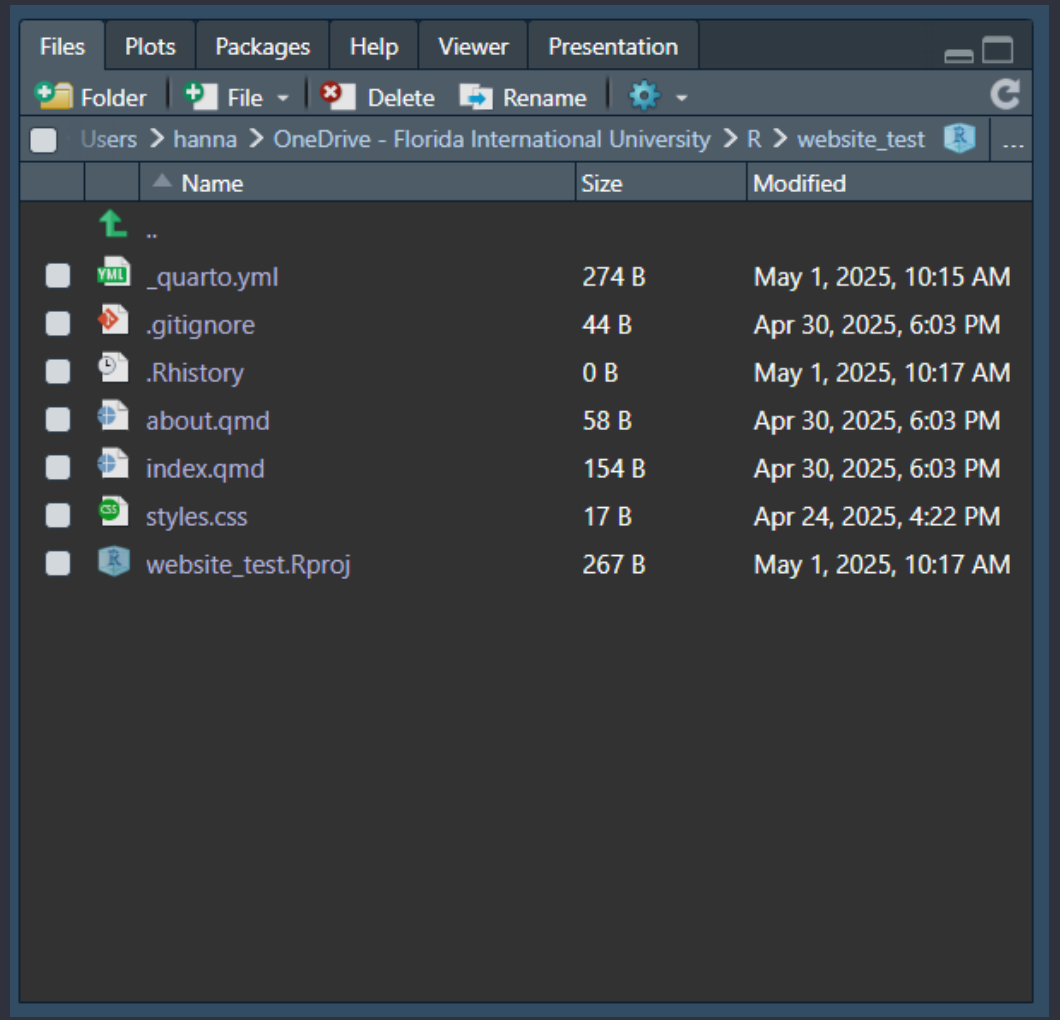
_quarto.yml - "settings" file for your website. Do not change name!

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



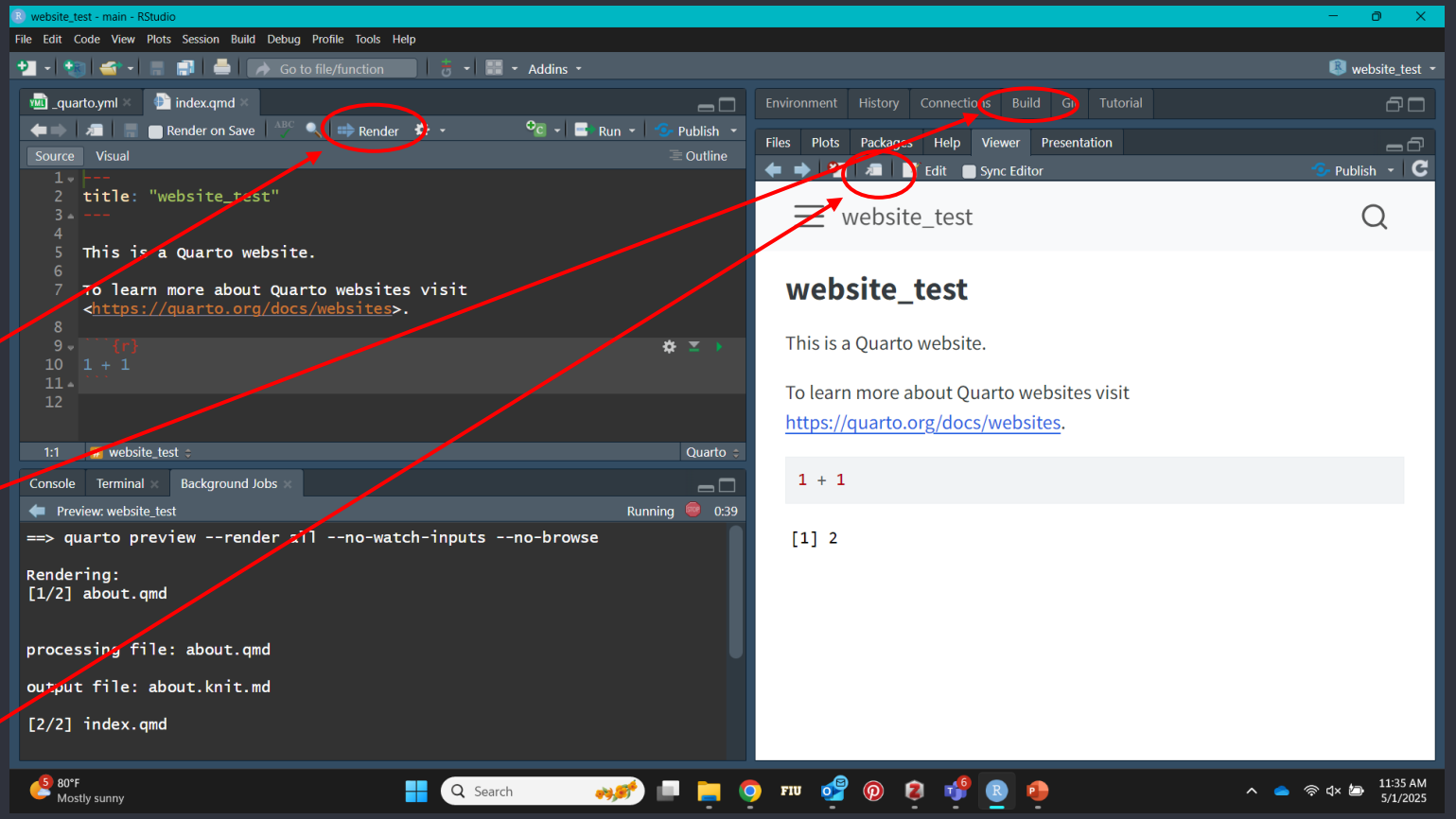
How do these files work together?

- Let's see by rendering our website:

On a qmd file, this option just renders the page

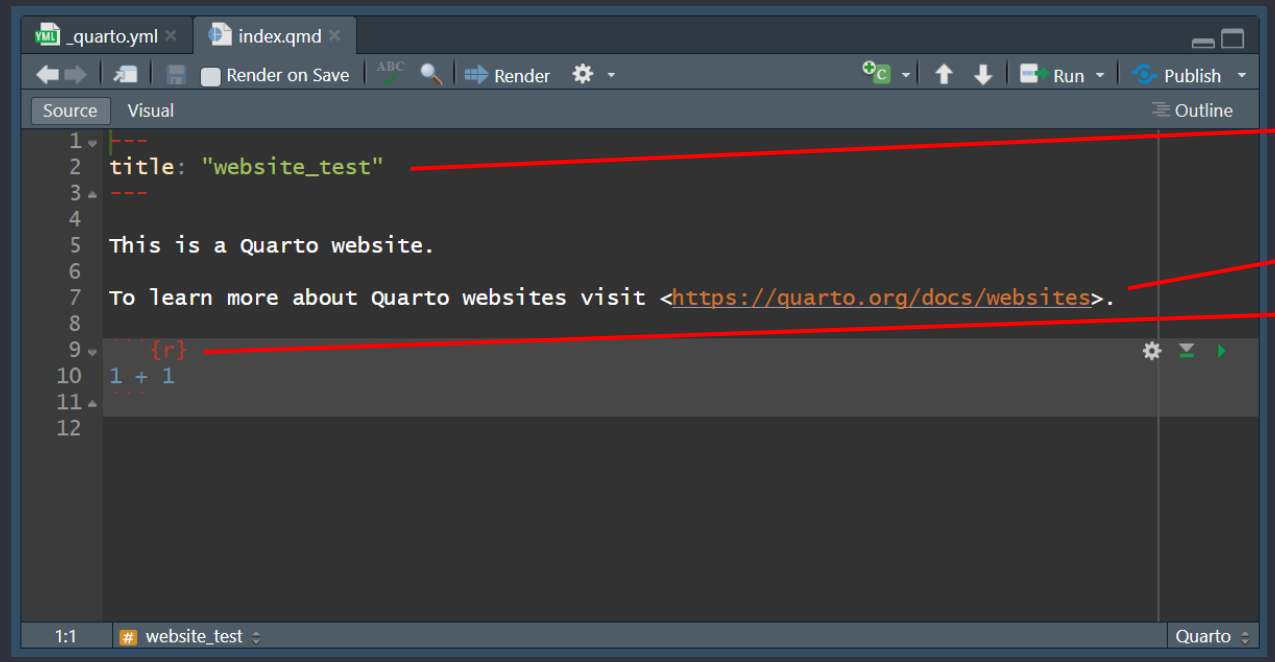
On "build" tab, will render entire website and place rendered html files in "docs" folder. DO THIS OPTION!

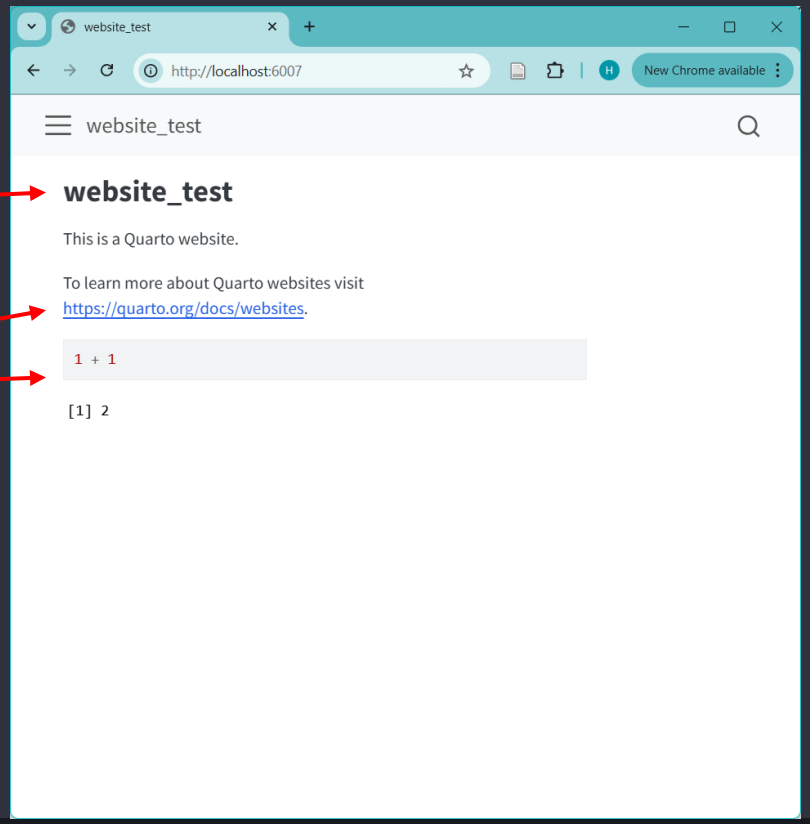
Your website will pop up in the viewer pane. Click this button and it will launch in your web browser instead (better viewing!)



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.

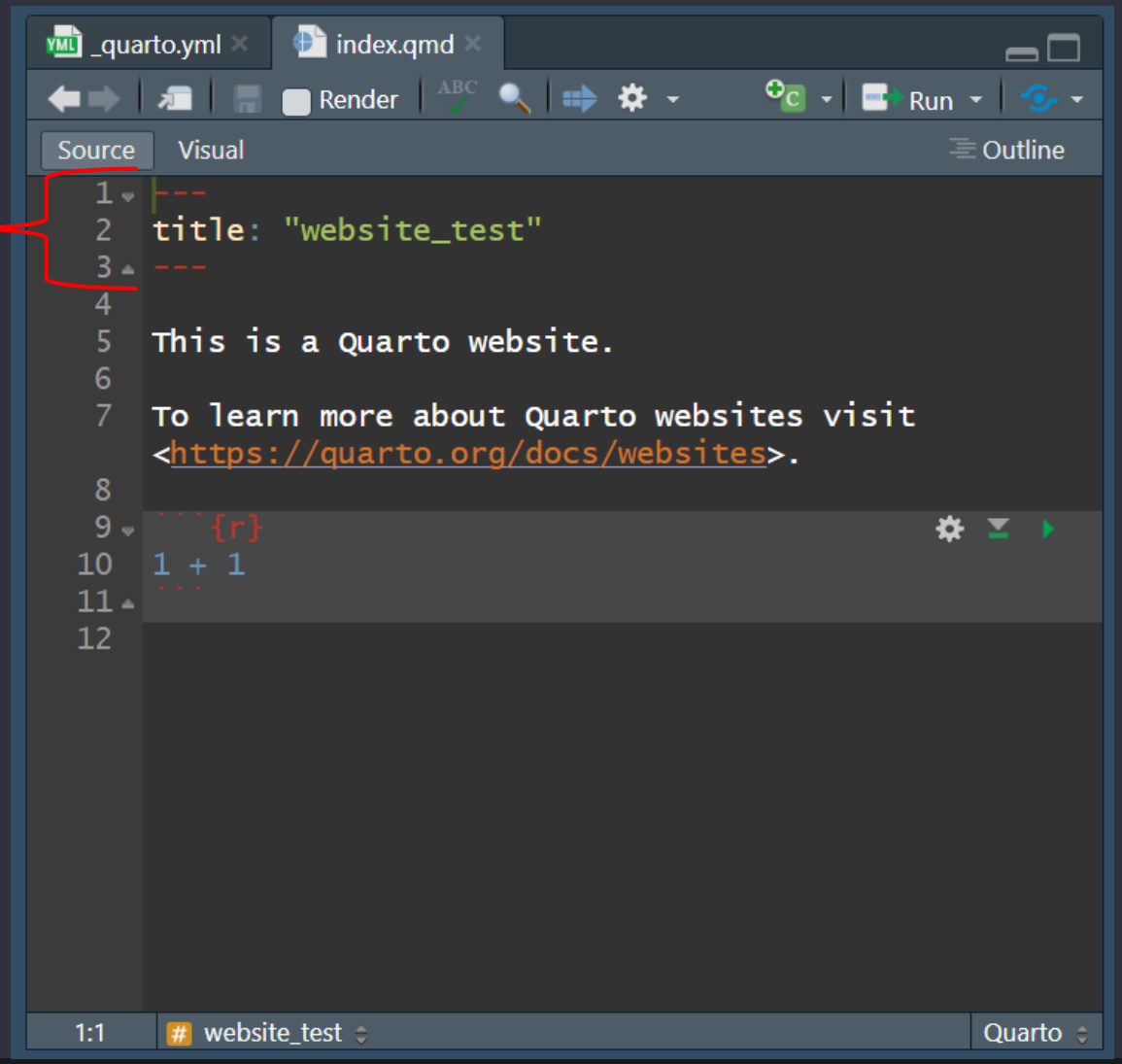




Page-level styling options...

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



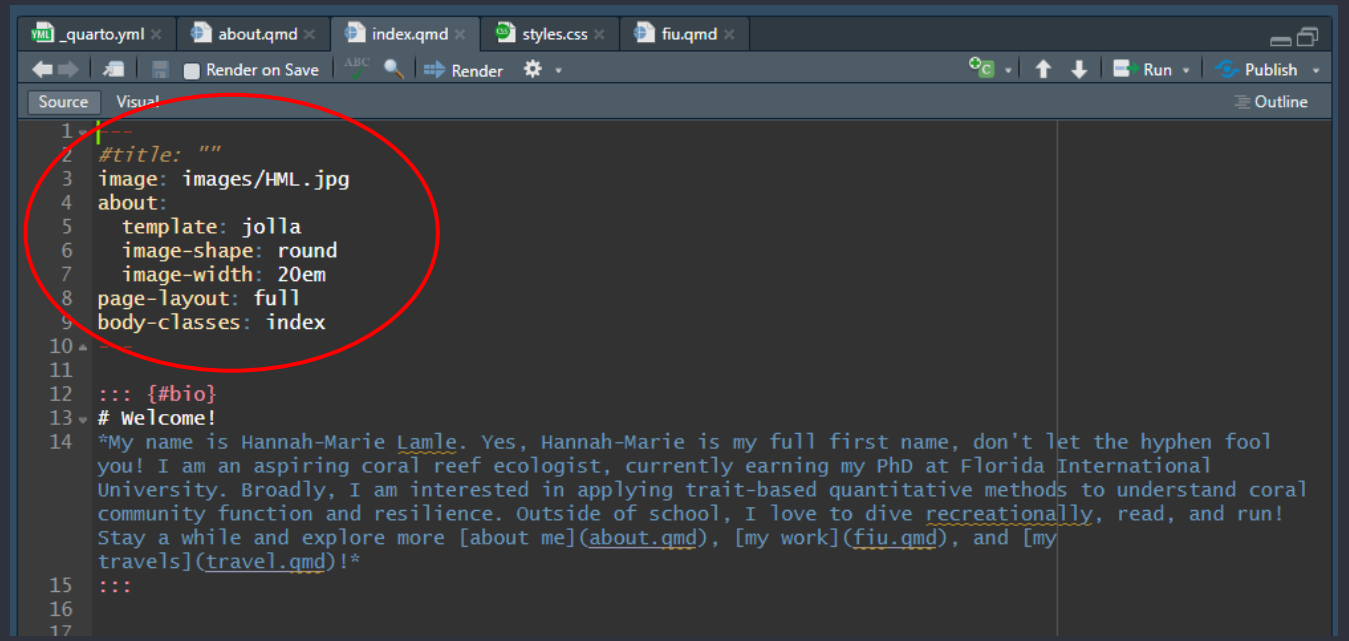
Page-level styling options… "About" page templates

- 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



Page-level styling options...

Webpage text – can do a lot here...

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

italics

bold

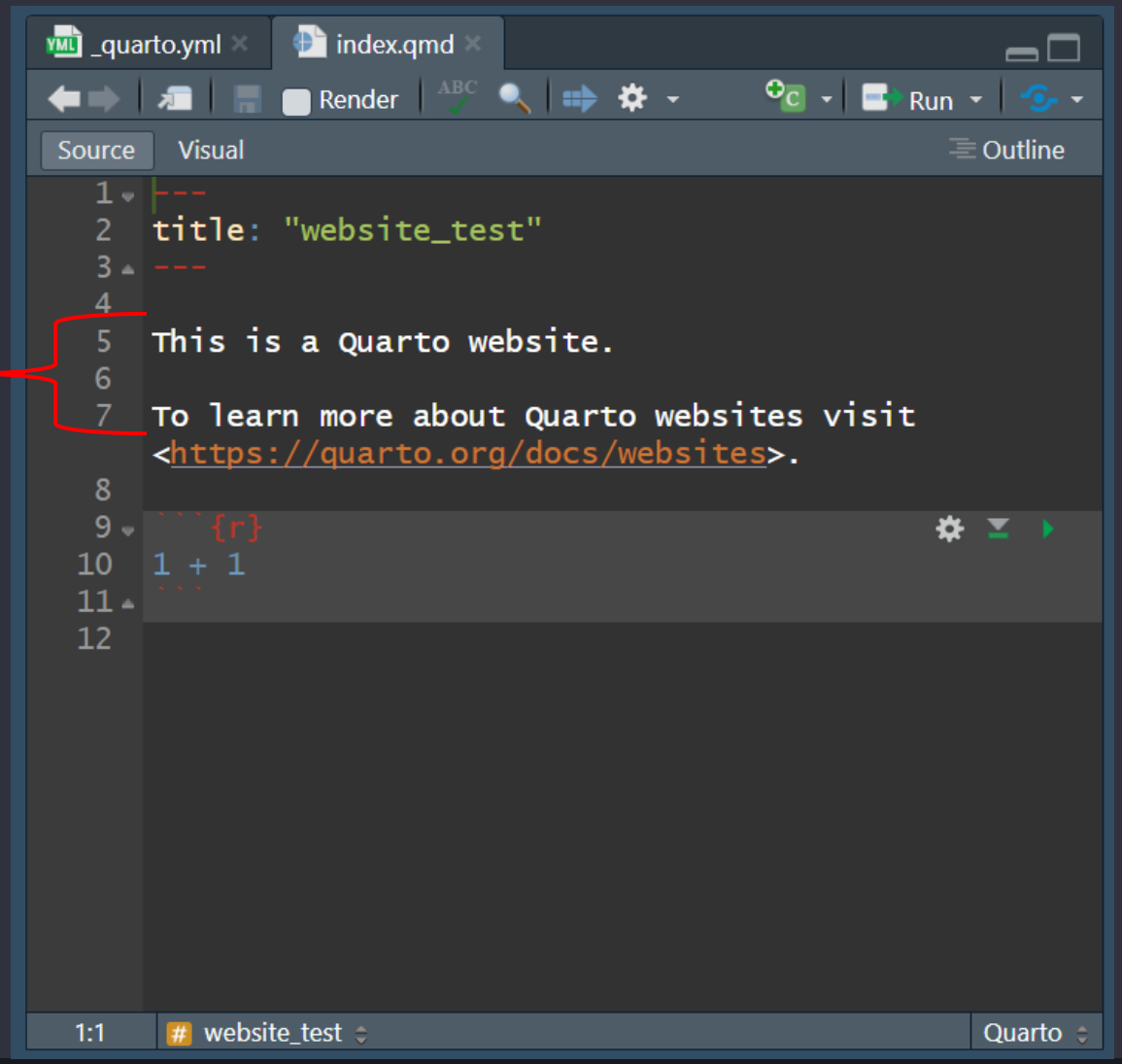
bold italics

<website link>

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

![Caption](image.png)

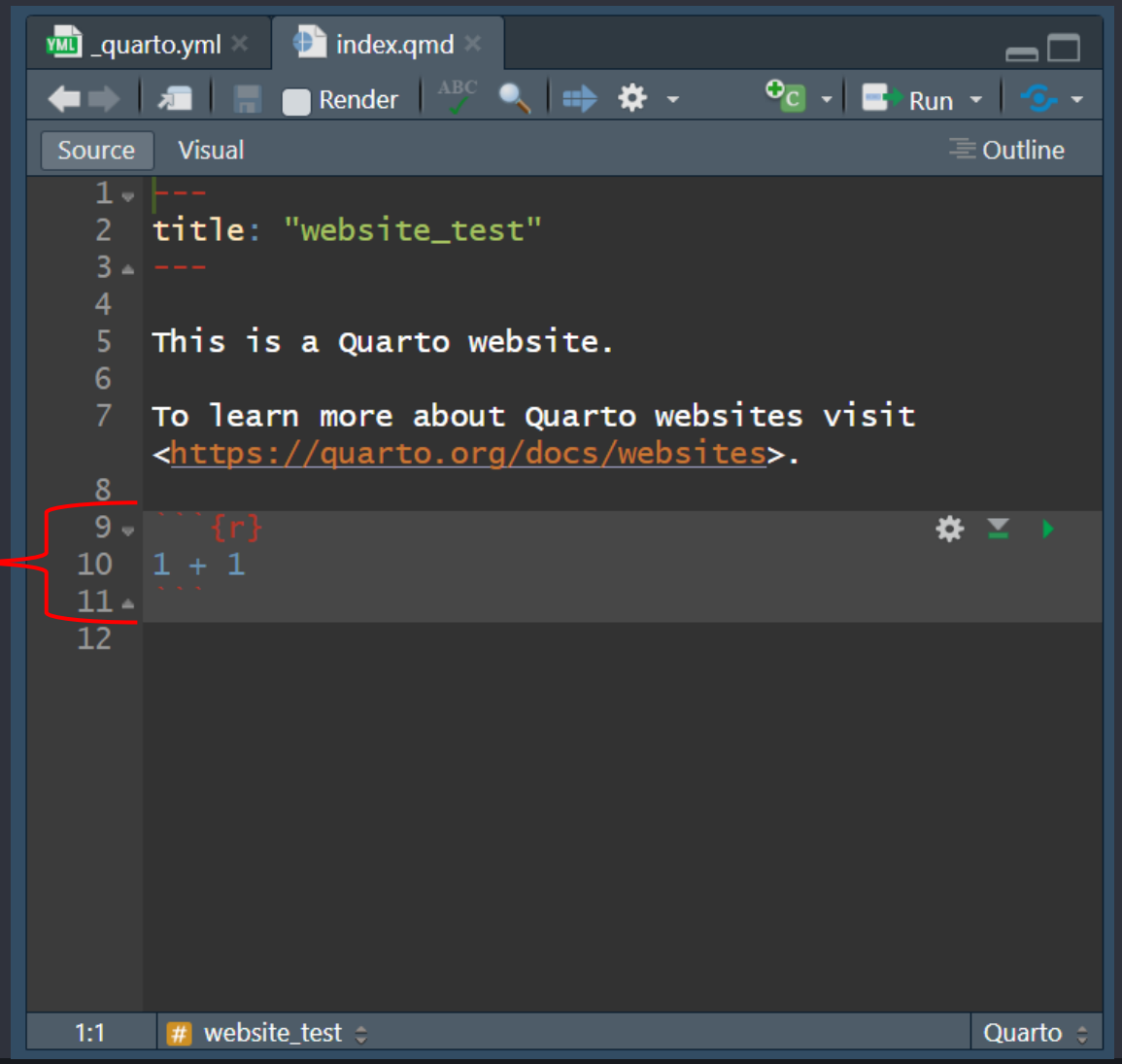
See more here: https://quarto.org/docs/authoring/markdown-basics.html



Page-level styling options...

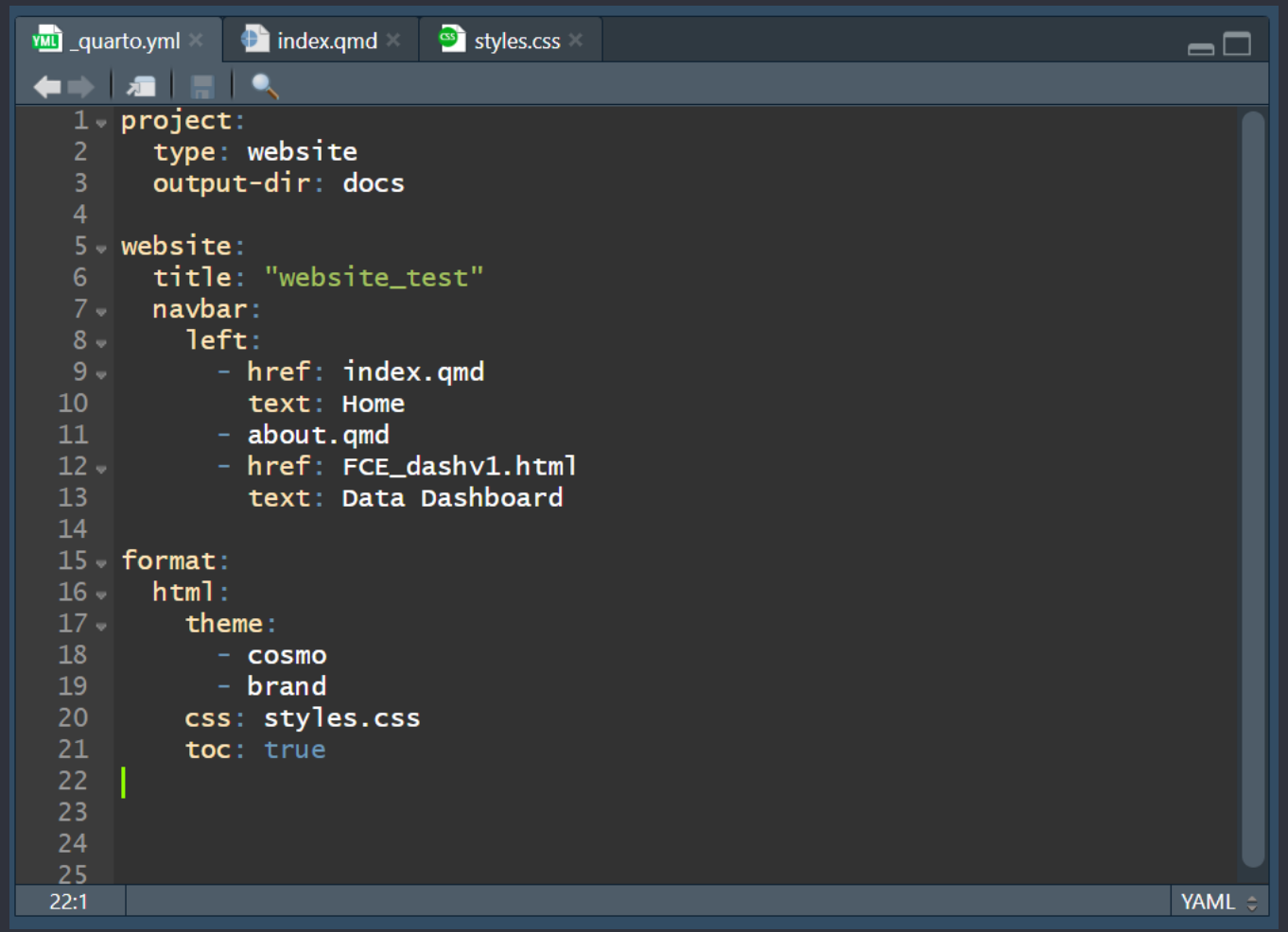
Code chunk – can show off your coding skills with the raw code and the output, similar to markdown format.

- 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



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



Design.qmd

_quarto.yml | styles.css | fiu.qmd

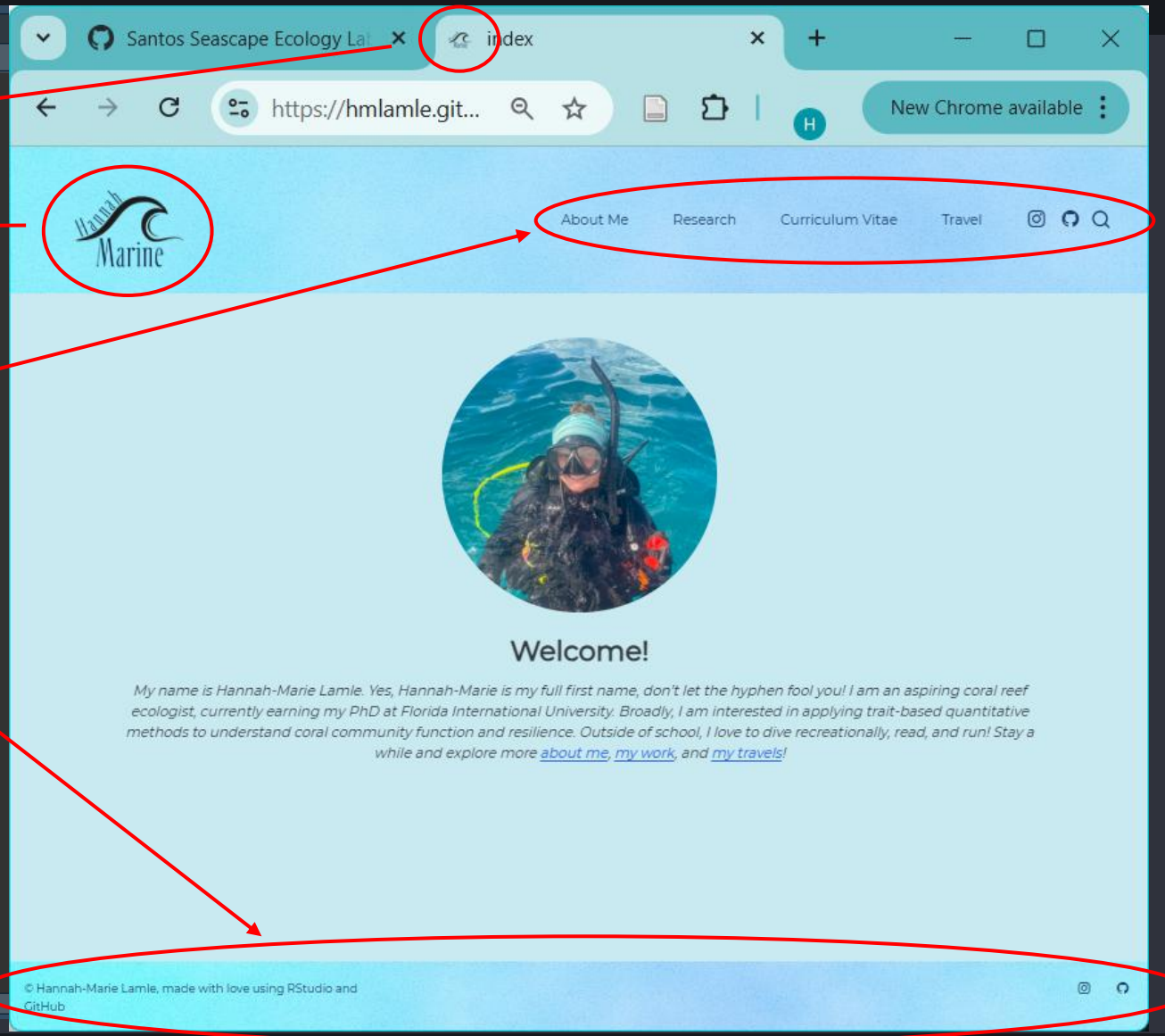
```yaml
project:
  type: website
  output-dir: docs

website:
  favicon: 'images/logo.png'
  navbar:
    logo: 'images/logo.png'
    right:
      - about.qmd
      - text: "Research"
        href: fiu.qmd
      - CV.qmd
      - text: "Travel"
        href: travel.qmd
    tools:
      - icon: instagram
        href: https://www.instagram.com/hannah_mari.n.e/
      - icon: bluesky
        href: https://bsky.app/profile/hannah-marine.bsky.social
      - icon: github
        href: https://github.com/hmlamle
    toggle-position: right
    tools-collapse: true

  page-footer:
    left: © Hannah-Marie Lamle, made with love using RStudio and GitHub
    right:
      - icon: instagram
        href: https://www.instagram.com/hannah_mari.n.e/
      - icon: bluesky
        href: https://bsky.app/profile/hannah-marine.bsky.social
      - icon: github
        href: https://github.com/hmlamle

format:
  html:
    theme: cosmo
    css: styles.css
    toc: false
```

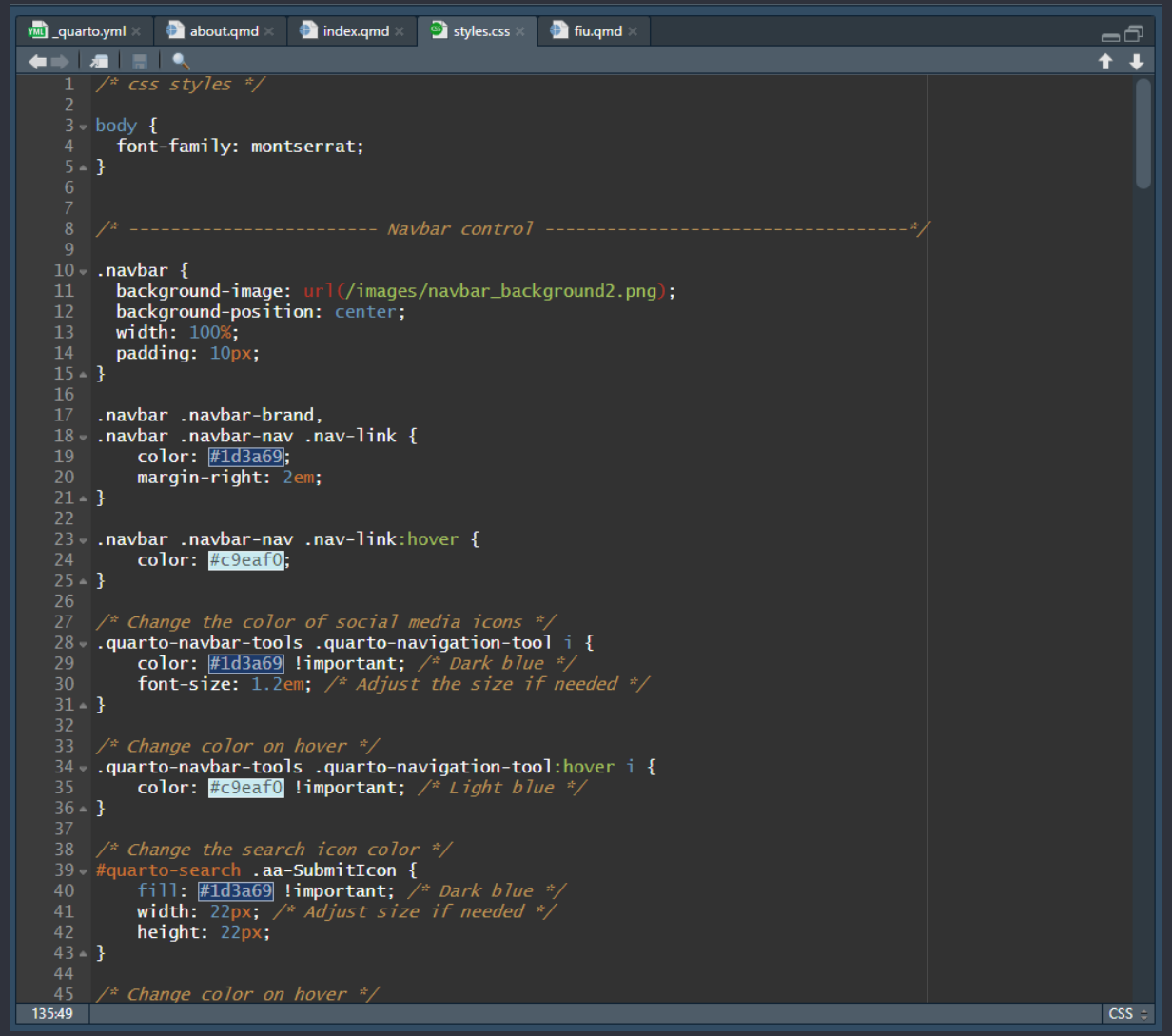
11:24



FCE_Science_Workshop_5.qmd

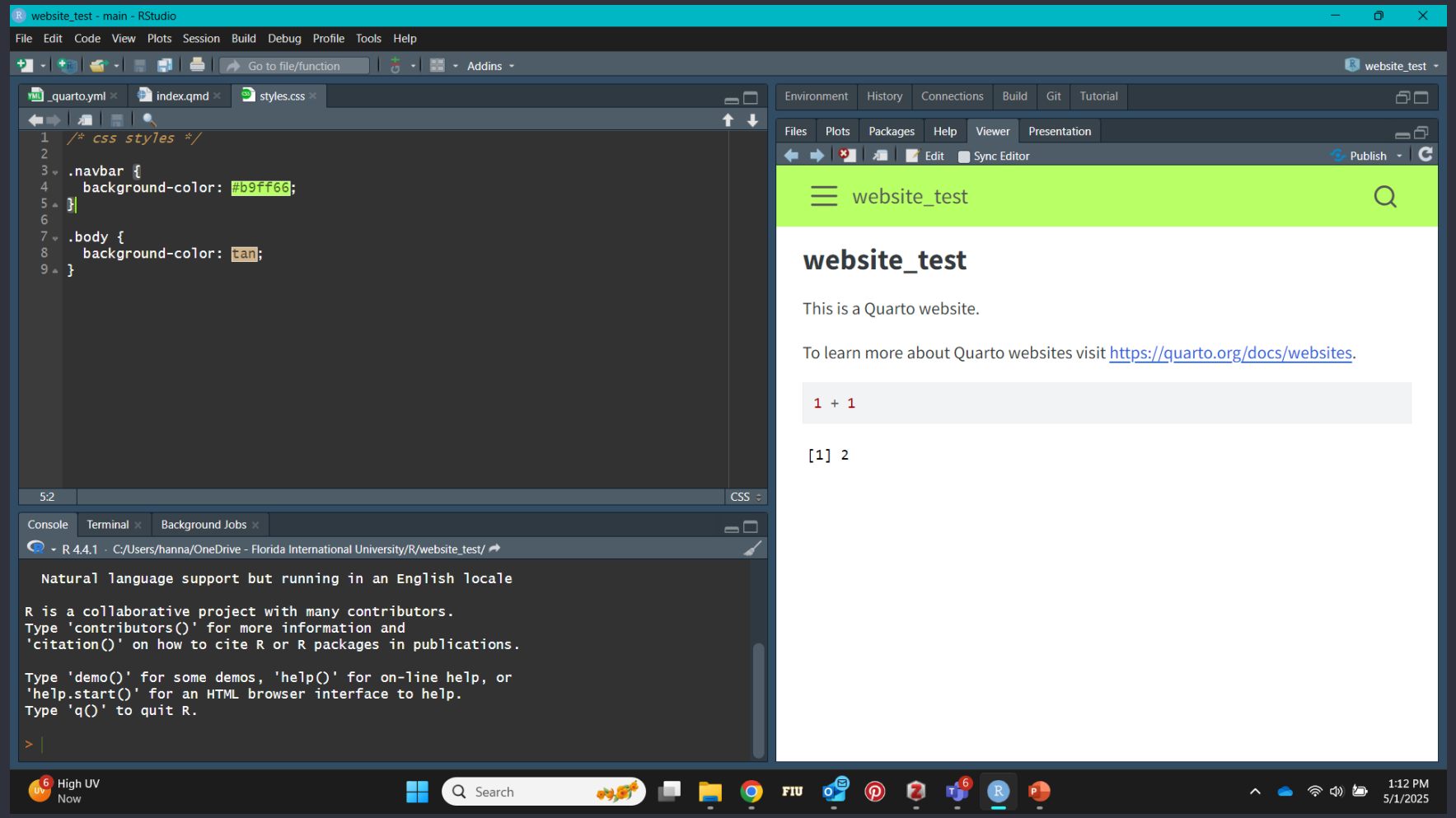
Styles.css file: even more customization for your website.

- 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



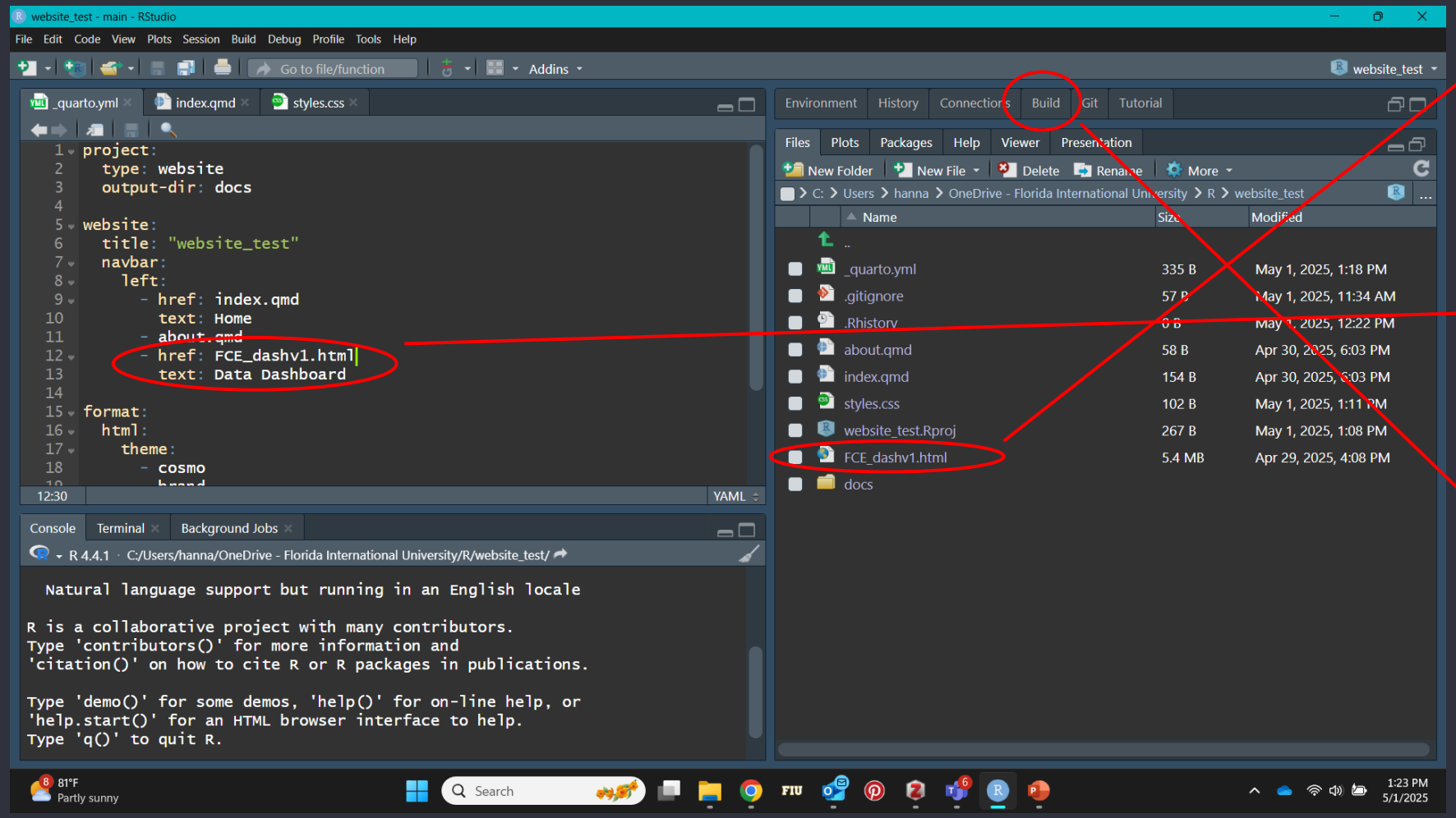
Design.qmd

Quick example (you try too!):



FCE_Science_Workshop_5.qmd

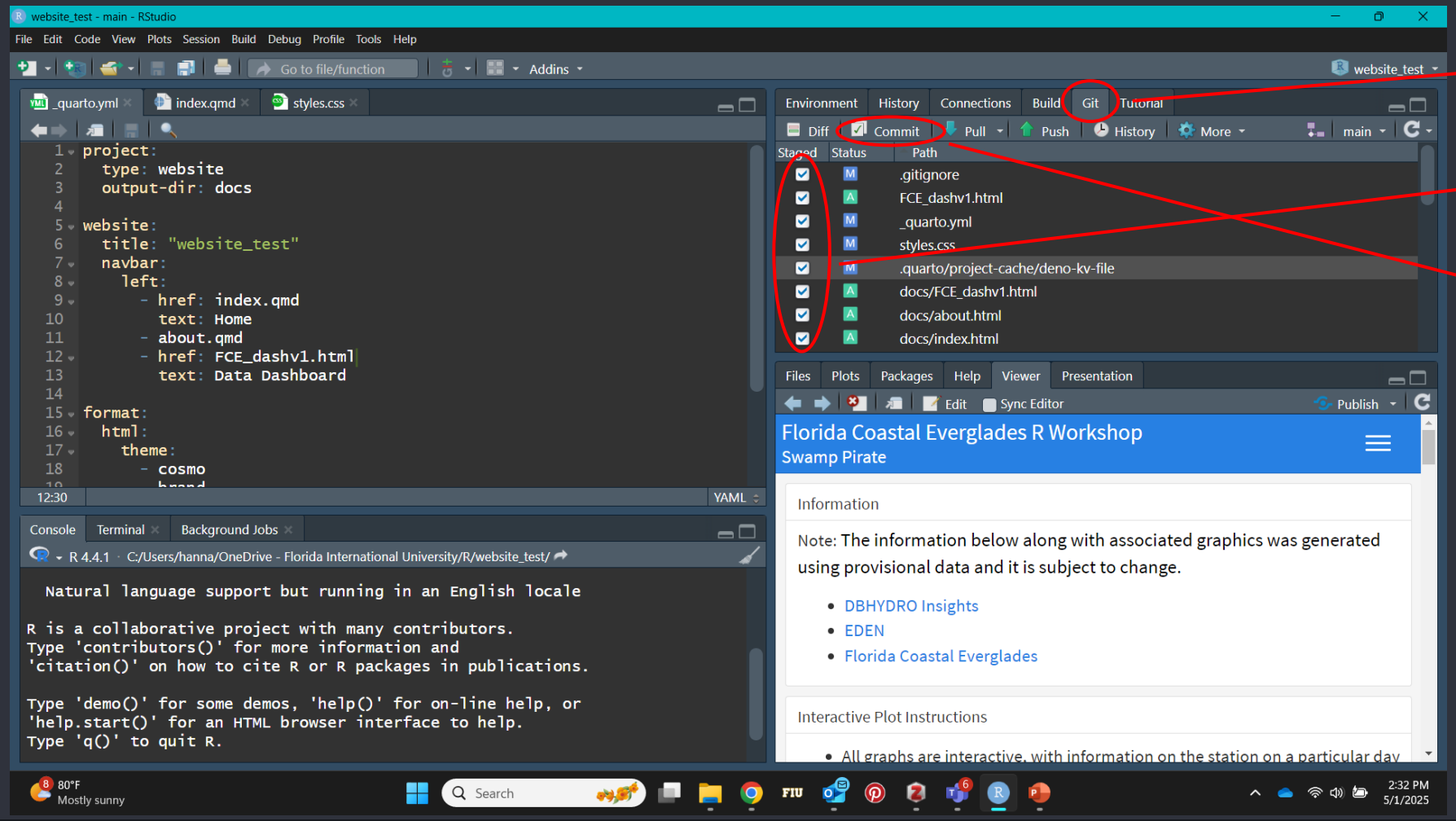
BONUS: Adding your r dashboard to your website?



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

Design.qmd

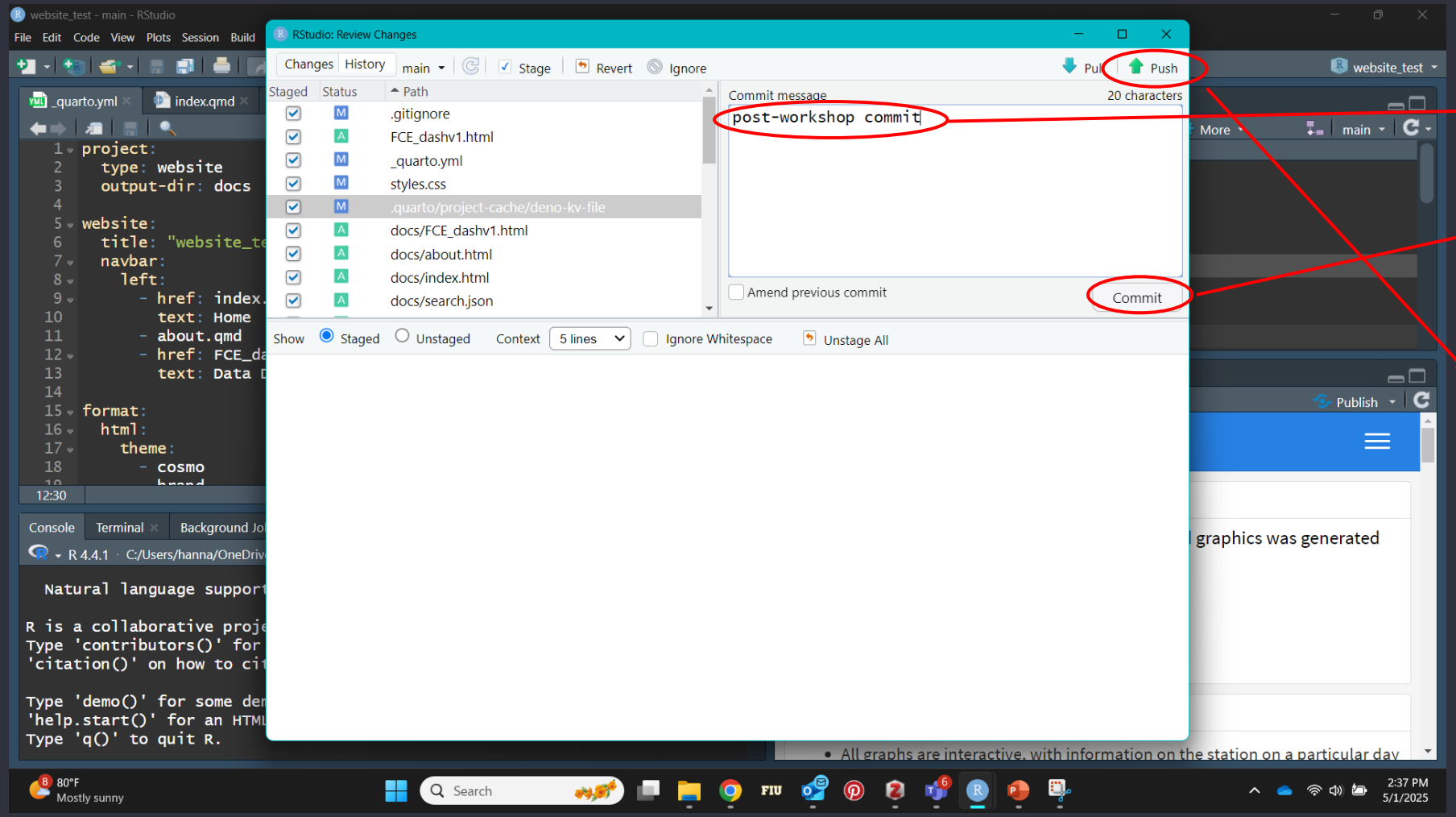
Done? Save, commit, push changes!



1. Go to Git tab
2. Check all files
3. Commit changes

FCE_Science_Workshop_5.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!

Resources.qmd

Thank you for listening! Happy website making ☺

Resources:

# website:	Github code:
https://hmlamle.github.io/	https://github.com/hmlamle/hmlamle.github.io
https://seascapes-fiu.github.io/	https://github.com/Seascapes-FIU/seascapes-fiu.github.io
https://mackwhite.github.io/	https://github.com/mackwhite/mackwhite.github.io
https://samanthacsik.github.io/	https://github.com/samanthacsik/samanthacsik.github.io
https://eric.walkingshaw.net/	https://github.com/walkie/walkie.github.io

Slide deck for Advanced Quarto formatting

Questions?

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