Creating a Simple Website with Quarto and GitHub

May 9, 2024

Why Have a Website?

- Personal websites are a great way to showcase
  - Any published work.
  - Posters/Presentations.
  - Any awards/grants you have received.
- When applying to conferences or travel grants etc., the application will often ask for your personal website.
- If you are organising projects or reading groups, a personal website can be a good place to make the information publicly accessible.

Quarto & GitHub

- Making a personal website is actually quite easy and doesn't require any web development skills or for you to spend any money.
- Quarto is a publishing software that lets you write content in markdown (more on this in a moment) and publish it as a web page, book, article etc.
- Quarto provides options on how to style and format your content but does all the heavy lifting for you (creating tabs, drop down menus etc.).
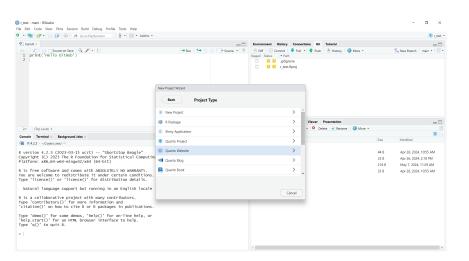- After creating your website with Quarto, you can host it for free on GitHub Pages.

Markdown

- Markdown is a markup language that you can use to add formatting elements to plaintext documents without the need to use HTML.
- It is very versatile and can be used with almost any programming language or editor, e.g. Jupyter notebooks, RStudio, VS Code etc.
- It can be used in conjunction with Latex, so that you can write code, equations and text alongside each other.
- It works across all operating systems and was used to write the Git/GitHub worksheets for this session.
- It is *very* easy to use.
- The best way to learn markdown is to use it (more info at the end of these slides).
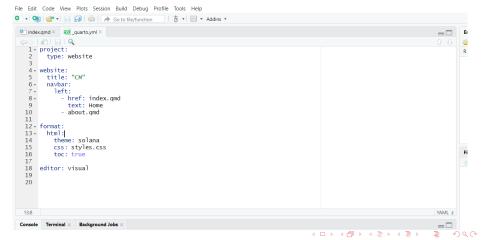
Quarto Websites

- Quarto websites consist of two main components:
  - The YAML config file (.yml). This contains various settings/options to control how your website looks and behaves.
  - The Quarto markdown file (.qmd). This contains the actual content of your website. The content of your homepage of will need to be named 'index.qmd'.
- Here I'm going to give a general outline for how to create a website with Quarto using RStudio.
- However, it is equally easy to do in VS Code and links to more detailed tutorials will be given at the end.
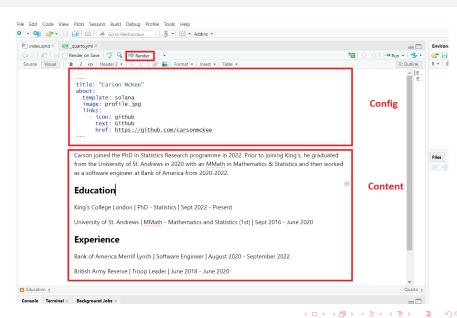
Create a Quarto Website Project

YAML Config

- YAML (YAML Ain't Markup Language) is a data serialization language generally used for configuration files.
- In Quarto it is used to specify various website settings/options.

Quarto Markdown

Rendered Website

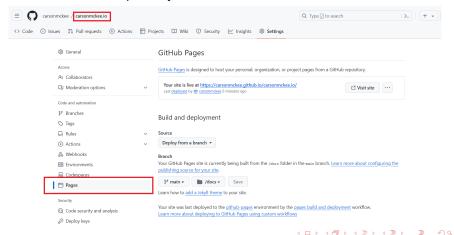- And so with minimal effort we can create a fairly professional looking website.

Hosting with GitHub Pages

- After creating your website with Quarto, you can put it online for free using your GitHub account.

- Note that the repository name must end in '.io'.

Managing your Website

- The website will then be publicly available (this is the QR code for the one I just made):

- Unfortunately, GitHub Pages does not provide a way to track how many visitors your website receives (although you can set this up manually with Google Analytics if you wish).
- If you want to modify your website, just commit/push the changes to your website repository and GitHub will automatically update it.
- To delete the website, simply delete the repository or change the source branch to 'None'.

What to do

1. Follow the steps in either VS Code/RStudio for setting up a basic Quarto site.
2. Modify your website using markdown, adding images/links etc.
3. If you'd like to host your site on GitHub (making it publicly available), follow the instructions for GitHub Pages.

Quarto Website

Markdown Basics

GitHub Pages