

# 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.

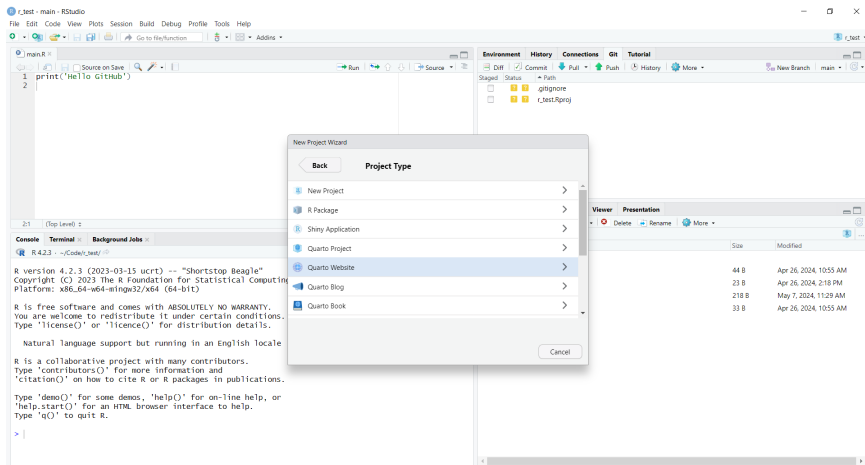
# Markdown

- 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

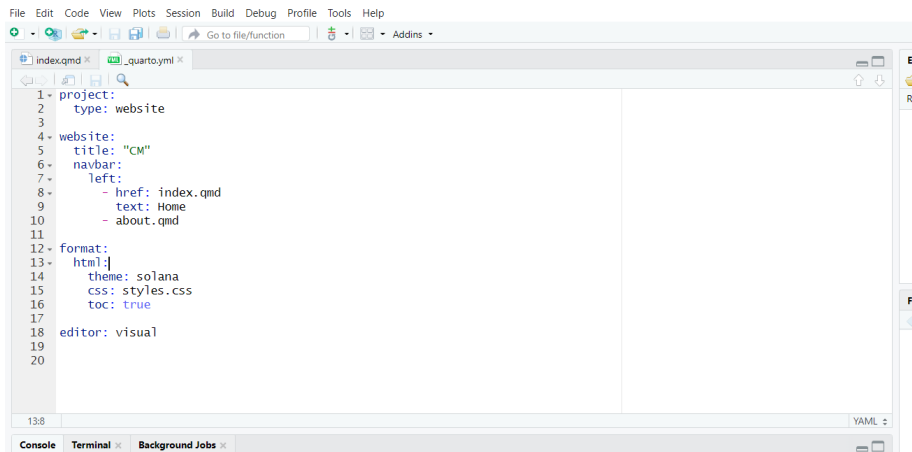
- Quarto websites consist of two main components:
  - The YAML config file (.yml). This contains various settings/options to control how your website looks and behaves.
  - The Quarto markdown file (.qmd). This contains the actual content of your website. The content of your homepage will need to be 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.



The screenshot shows a web-based editor for a Quarto project. The top menu bar includes File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, and Help. Below the menu is a toolbar with icons for file operations and a search bar. The main editor area displays the contents of the `_quarto.yml` file, which is a YAML configuration for a website. The file is structured as follows:

```
1 project:
2   type: website
3
4 website:
5   title: "CM"
6   navbar:
7     left:
8       - href: index.qmd
9         text: Home
10      - about.qmd
11
12 format:
13   html:
14     theme: solana
15     css: styles.css
16     toc: true
17
18 editor: visual
```

The editor interface includes a sidebar on the right with tabs for Explorer, Search, and File. The bottom status bar shows the current line and column (13:8) and the file type (YAML). The bottom of the window features a console, terminal, and background jobs panel.

# Quarto Markdown

The screenshot shows the Quarto editor interface. The top menu bar includes File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, and Help. Below the menu is a toolbar with various icons, including a 'Render' button (a blue square with a white lightning bolt) which is highlighted with a red box. The main editing area is divided into two sections, both outlined with red boxes:

- Config:** A YAML frontmatter block enclosed in three dashes:

```
---
title: "Carson McKee"
about:
  template: solana
  image: profile.jpg
  links:
    - icon: github
      text: Github
      href: https://github.com/carsonmckee
---
```
- Content:** The main body of the document, containing:
  - A paragraph: "Carson joined the PhD in Statistics Research programme in 2022. Prior to joining King's, he graduated from the University of St. Andrews in 2020 with an MMath in Mathematics & Statistics and then worked as a software engineer at Bank of America from 2020-2022."
  - A section header: **Education**
  - Text: "King's College London | PhD - Statistics | Sept 2022 - Present"
  - Text: "University of St. Andrews | MMath - Mathematics and Statistics (1st) | Sept 2016 - June 2020"
  - A section header: **Experience**
  - Text: "Bank of America Merrill Lynch | Software Engineer | August 2020 - September 2022"
  - Text: "British Army Reserve | Troop Leader | June 2018 - June 2020"

On the right side of the editor, there are panels for 'Environ' (Environment), 'Files', and 'Outline'. The bottom status bar shows 'Education' and 'Quarto'.



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

[CM](#) [Home](#) [About](#)

## Carson McKee

[Github](#) [LinkedIn](#)

Carson joined the PhD in Statistics Research programme in 2022. Prior to joining King's, he graduated from the University of St. Andrews in 2020 with an MMath in Mathematics & Statistics and then worked as a software engineer at Bank of America from 2020-2022.

### Education


King's College London | PhD - Statistics | Sept 2022 - Present

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On this page

[Education](#)

[Experience](#)

Carson McKee

KCL

May 9, 2024

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# 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'.

The screenshot shows the GitHub repository settings page for the user 'carsonmckee'. The repository name 'carsonmckee.io' is highlighted with a red box. The left sidebar contains a list of settings categories: General, Access, Code and automation, and Security. The 'Pages' option under 'Code and automation' is highlighted with a red box. The main content area is titled 'GitHub Pages' and includes the following information:

- General:** A message stating 'Your site is live at <https://carsonmckee.github.io/carsonmckee.io/>' and 'Last deployed by carsonmckee 6 minutes ago'. A 'Visit site' button is present.
- Build and deployment:** A section for configuring the build and deployment process. It includes a 'Source' dropdown set to 'Deploy from a branch', a 'Branch' dropdown set to 'main', and a 'Save' button.
- Security:** A section for configuring security settings, including 'Code security and analysis' and 'Deploy keys'.

# 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