

Build a Website with Git and Github

Owen Mundy

Professor of the Practice in Digital Studies

owmundy@davidson.edu

Sections

1 An introduction to version control and Git basics

2 Create a Github Pages site with Markdown

- *Build, host, and theme a simple website with minimal technical requirements.*
- *A fast and free alternative to Wordpress that requires only a web browser.*
- 👉 Prereqs: [Get a free Github account](#)

3 Build a website with HTML, CSS, JS and Git

- *Create and test a website locally using foundational languages for the web.*
- *Publish updates with Git, VS Code, and Github Desktop.*
- 👉 Prereqs: [Install and configure Git](#). Install [Github Desktop](#) and [VS Code](#).

Survey

Presentation URL <https://bit.ly/cwd-git-website>

Raise your hand...

1. If you have published to the web with Wordpress or a similar tool?
2. How many have written HTML?
3. Have you used Git in some capacity previously?
4. What are you interested in building? For example...
 - a. A project or thesis website - multiple pages of text, with images
 - b. A portfolio website - project pages with text, images, youtube embeds

Part 1

An introduction to version control and Git basics

1. Introduction 6:00
2. Why use version control? 1:30
3. Git + Github 4:00

Introduction

Definitions

- **Web page** = an HTML page + dependencies...
 - CSS for presentation
 - Javascript (JS) interactive elements
 - Media = images, etc.
- **Website** = a collection of web pages, and their dependencies
- **Web server** = a computer on the internet that hosts your files (*makes them public*)
- **Web host** = a company that rents web servers for a monthly/annual fee
- **Web domain** = a unique name you register (~\$20/annual), points at your files on a web server

Web hosting options

1. Platform hosting - Wordpress, Squarespace, Wix, etc.
 - a. Pros: Very little technical info required
 - b. Cons: You are learning *their* custom tools. Your content is locked in. Hidden costs.
2. Static site hosting - Github Pages
 - a. Free, very little tech required to get started
 - b. Cons: No backend (no WP or DBs), complex features (forms, etc.) can be difficult
3. Cloud hosting - Vercel, Glitch, Netlify
 - a. Free tier + backend!
 - b. Cons: Technical know-how required
4. Shared hosting (VPS, rack)
 - a. Pros: Full control of your project
 - b. Cons: Monthly costs, requires technical knowledge

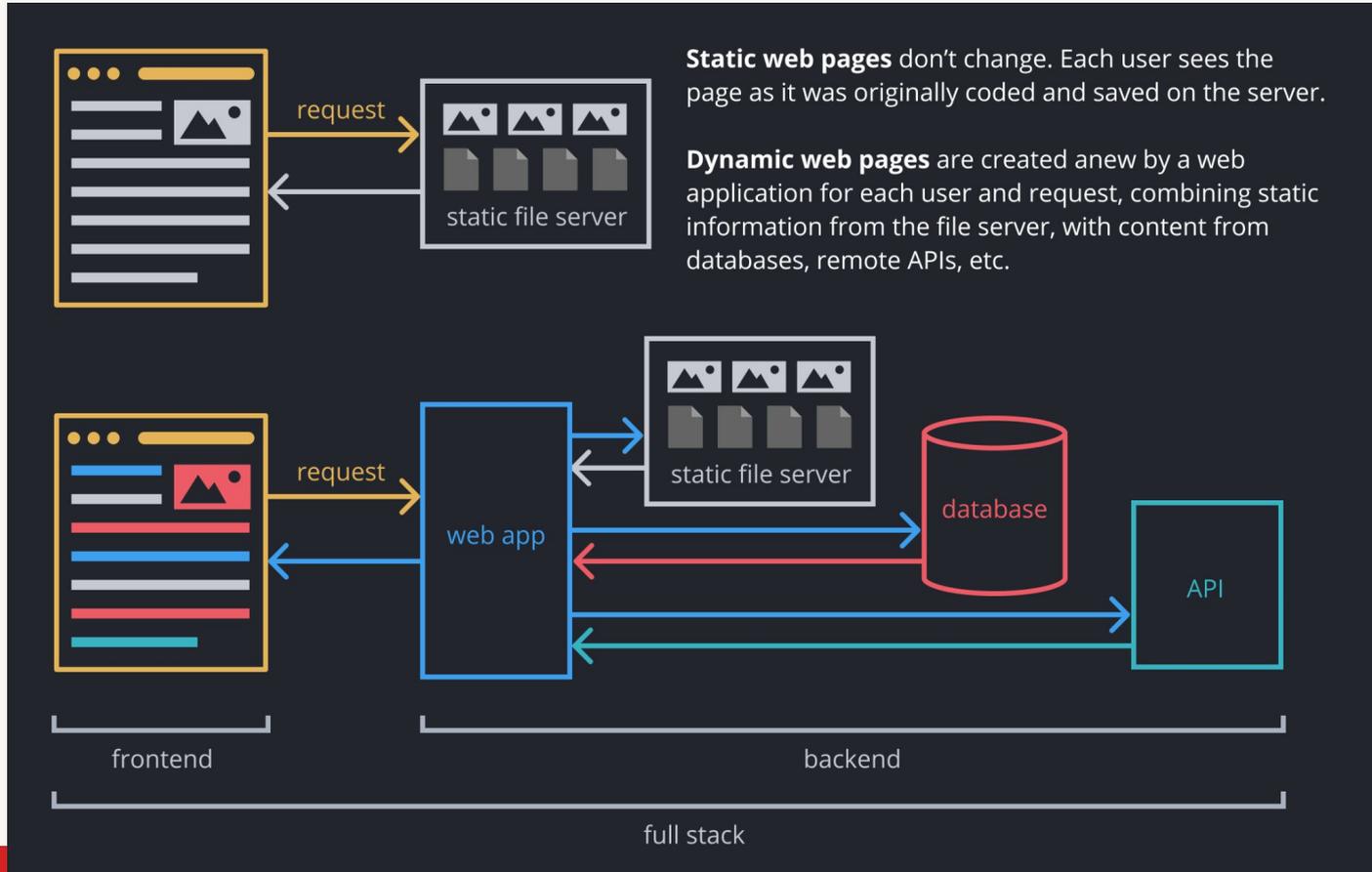
Sweet spot!

Great for students!

Definitions

Static websites need very few resources

Platforms (Wordpress, Squarespace, Wix, Moodle, etc.) require a full stack web server.



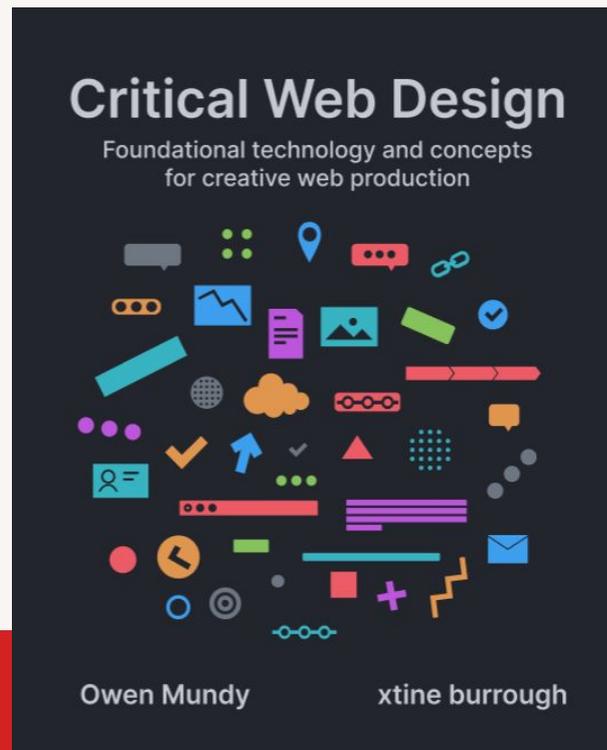
Other classes

- I created the first version of this presentation during the pandemic and students have used Git & Github in all my production classes successfully since.
 - DIG 245 Critical Web Design
 - DIG 345 Radical Software (full stack web dev)
 - DIG 250 Game Development
 - DIG 350 Advanced Game Design
 - DIG 333 Physical Computing (electronics)
- The writing and graphics are also included in my new book:

Critical Web Design

Xtine Burrough & Owen Mundy

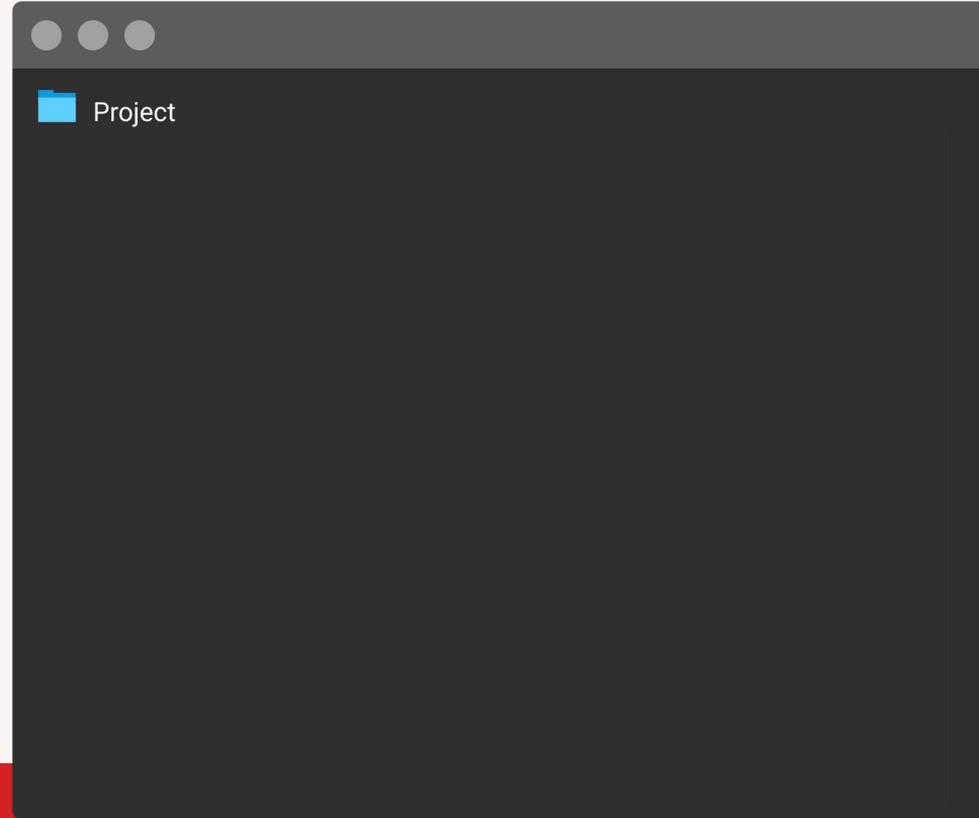
MIT Press, 2025



Why use version control?

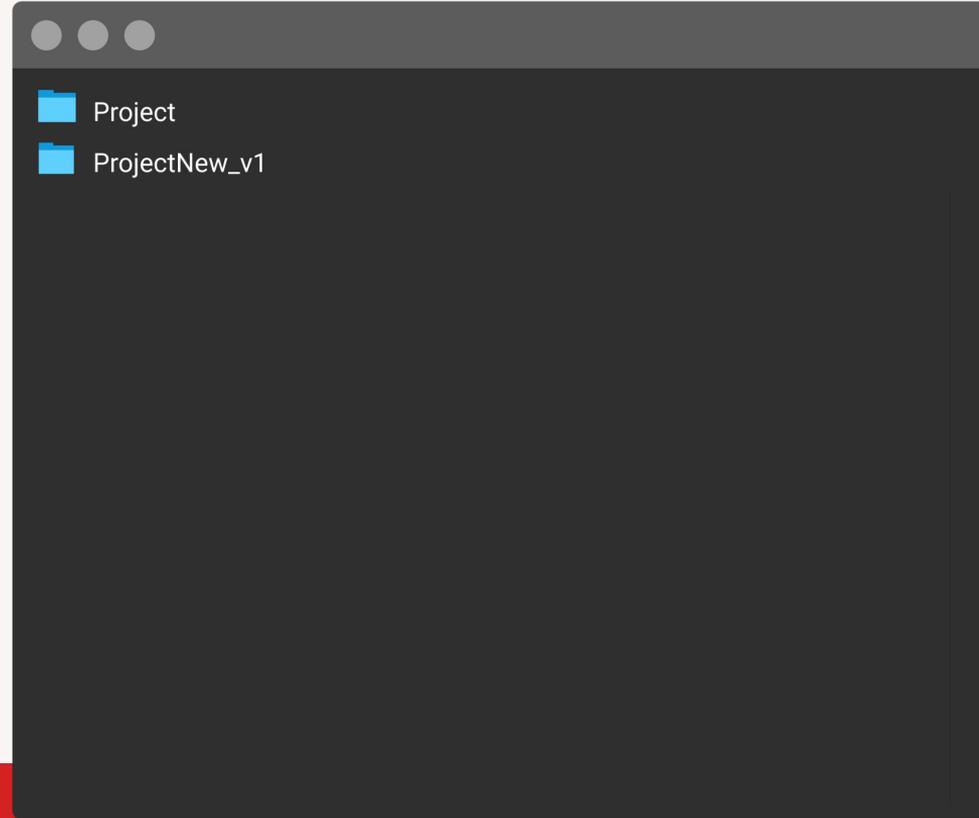
Why use version control?

- Say you want to update a project with a new feature.



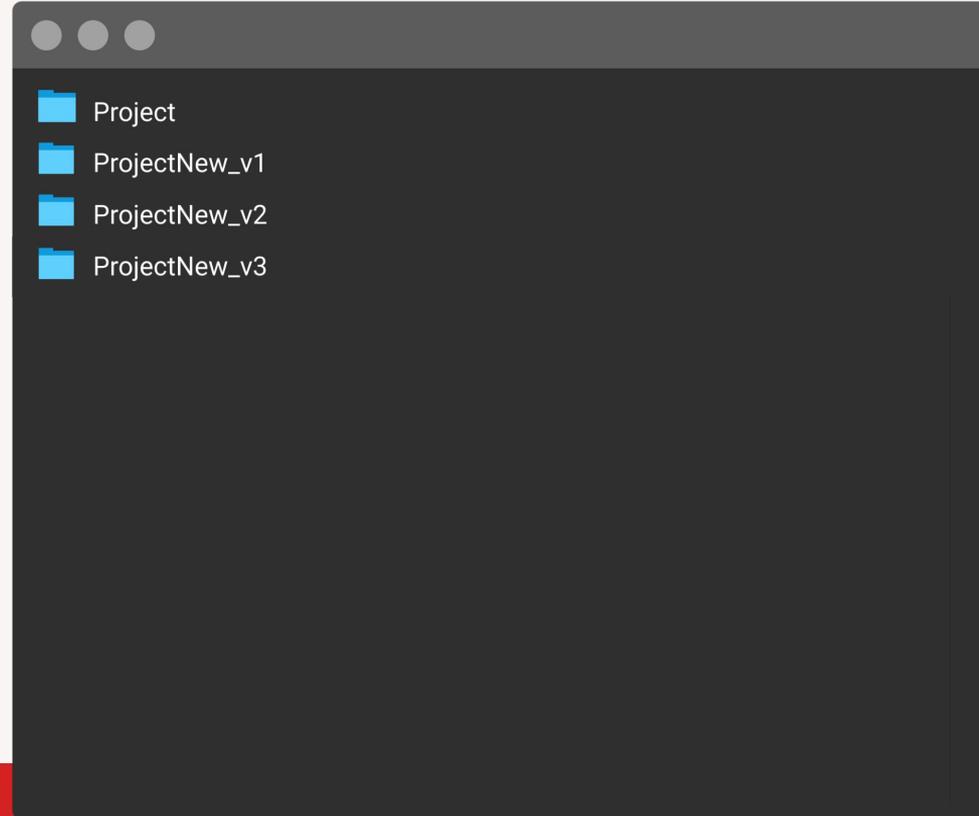
Why use version control?

- You aren't sure you will like the change yet, so you duplicate your project folder to be safe.
- You change files in the duplicate, and if you don't like them you can just delete that folder to "undo."



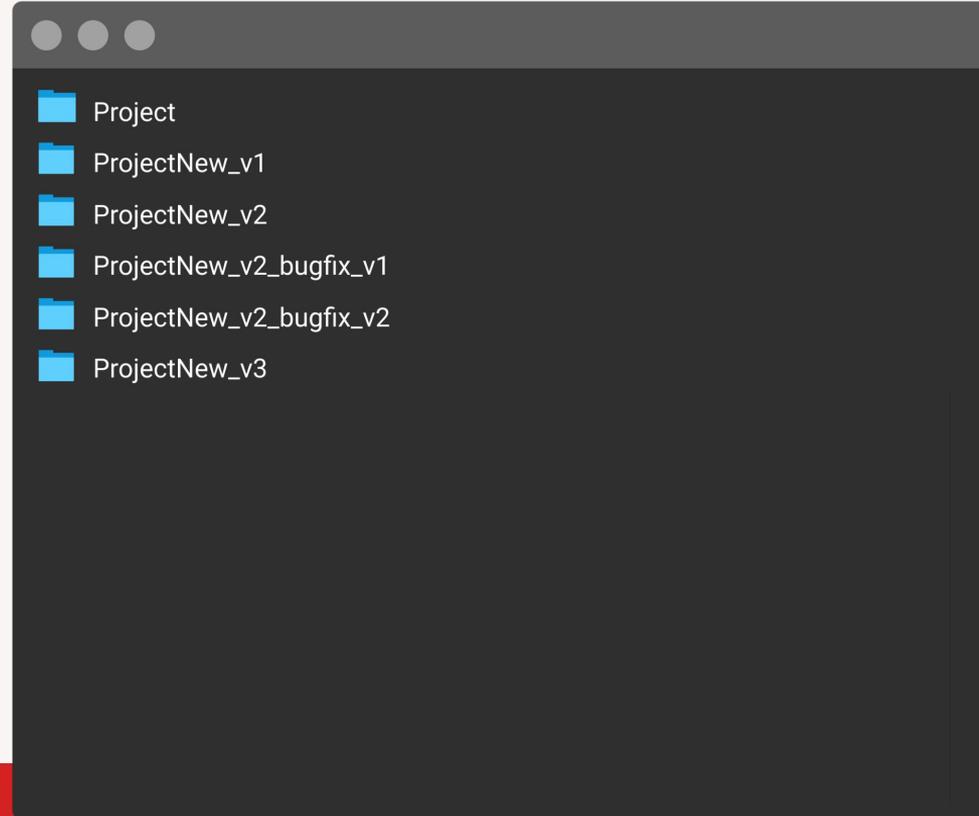
Why use version control?

- You decide to practice iterative design and make a 2nd and 3rd copy to test variations of the feature.
- Life is good. 👍



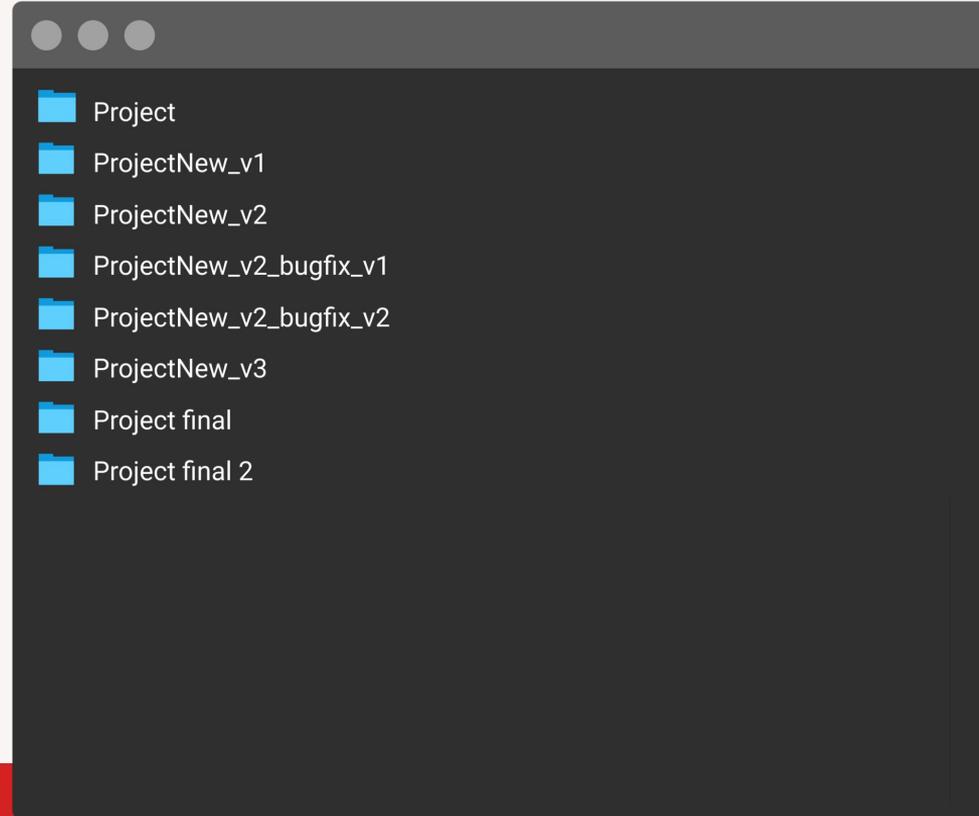
Why use version control?

- Testing is going great, but... while working on one of those iterations you find a bug, which takes two iterations to fix.
- You now have six different project folders, each with many different changed files.
- But, you realize you want to keep some changes from several *different* folders.
- See any issues yet? 🤔



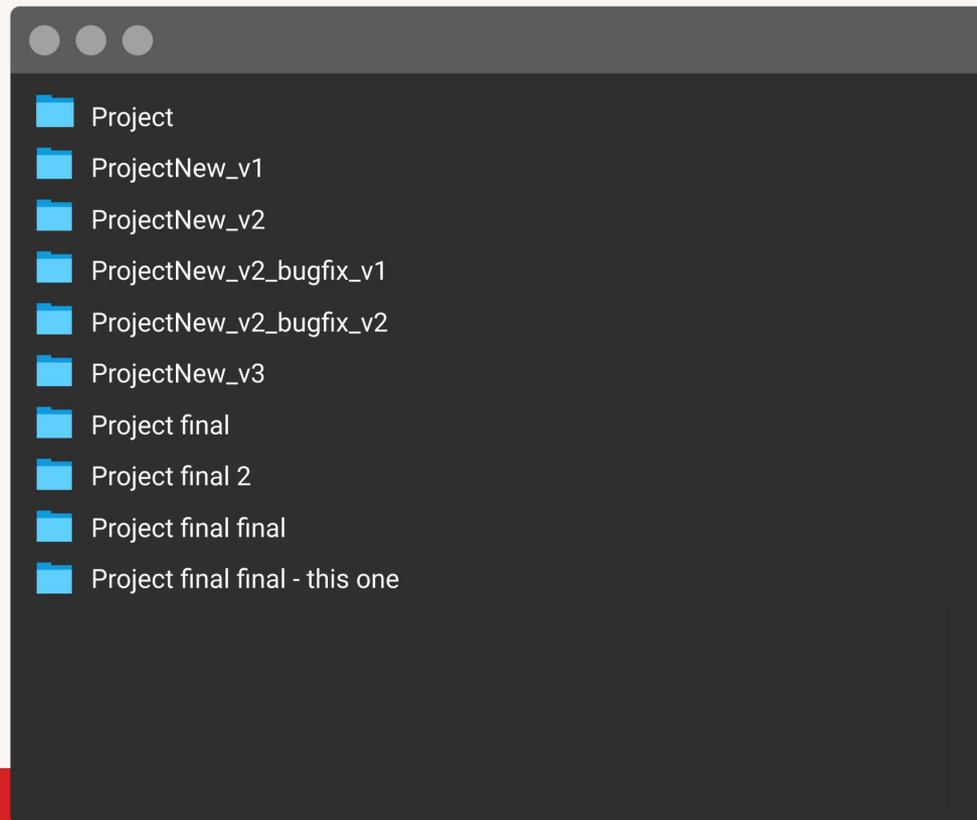
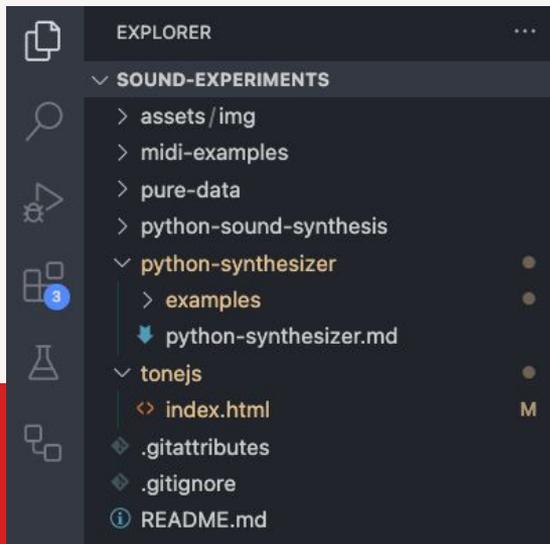
Why use version control?

- What if you have to work on something else for a few weeks and come back to the project.
- How will you know which is the right version? 🤔



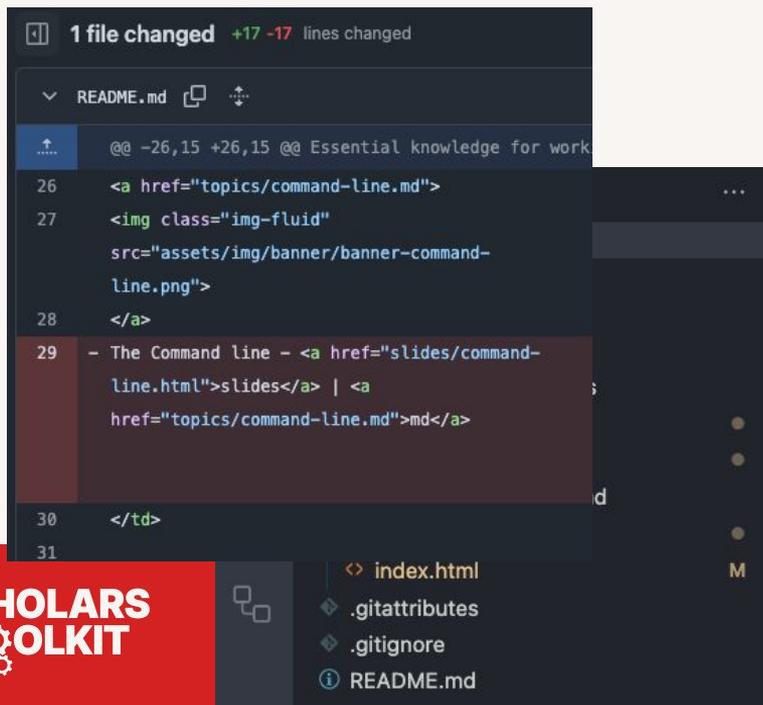
Why use version control?

- What if you want to keep *just some* of the changed files from version 3, and *some* from the bug fix?
- How would you know which files to integrate back into your project?
- Would you do it by hand? 😊

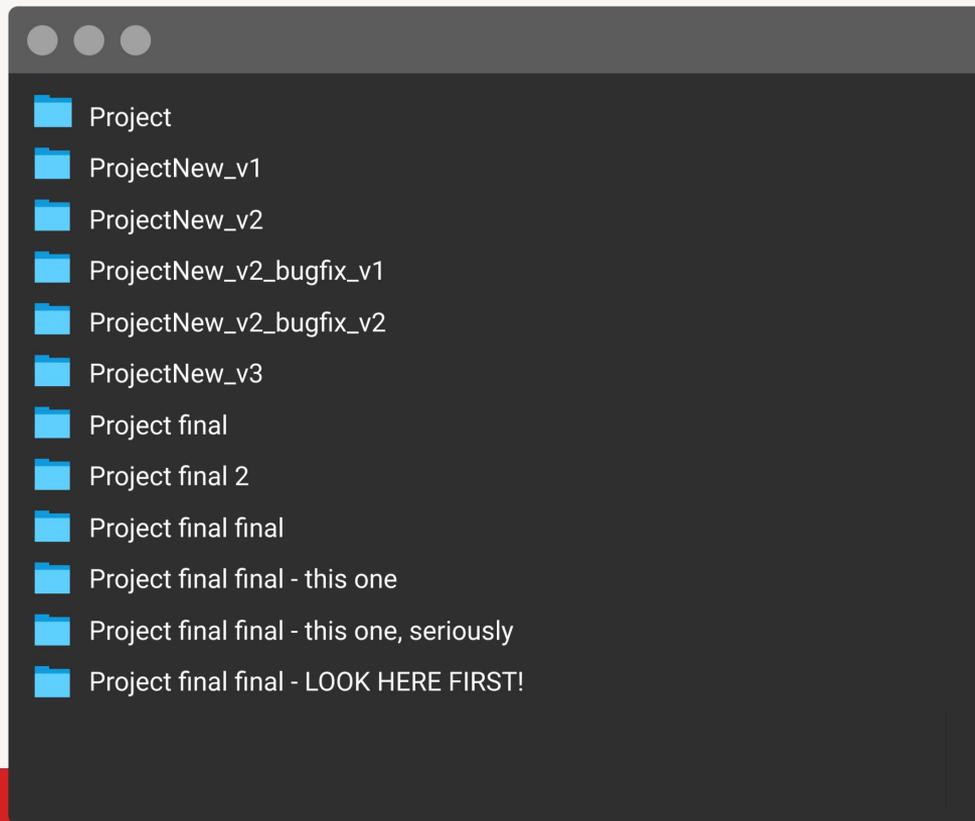


Why use version control?

- What if you want to keep only **some changes** in **some of the files**? 😞



```
1 file changed +17 -17 lines changed
README.md
@@ -26,15 +26,15 @@ Essential knowledge for work
26 <a href="topics/command-line.md">
27 
28 </a>
29 - The Command line - <a href="slides/command-
   line.html">slides</a> | <a
   href="topics/command-line.md">md</a>
30 </td>
31
```



Why use version control?

- What if you need to integrate some changes, from some files, **from different collaborators**?!! 😨

The image shows a code editor window with a diff view for README.md. The diff shows a change in a link: ``. Below the editor is a diagram illustrating a distributed version control system. A central cylinder labeled "Github, et al" is connected by arrows to three smiley face icons representing collaborators. The arrows indicate bidirectional communication and the flow of code between the central repository and the collaborators.

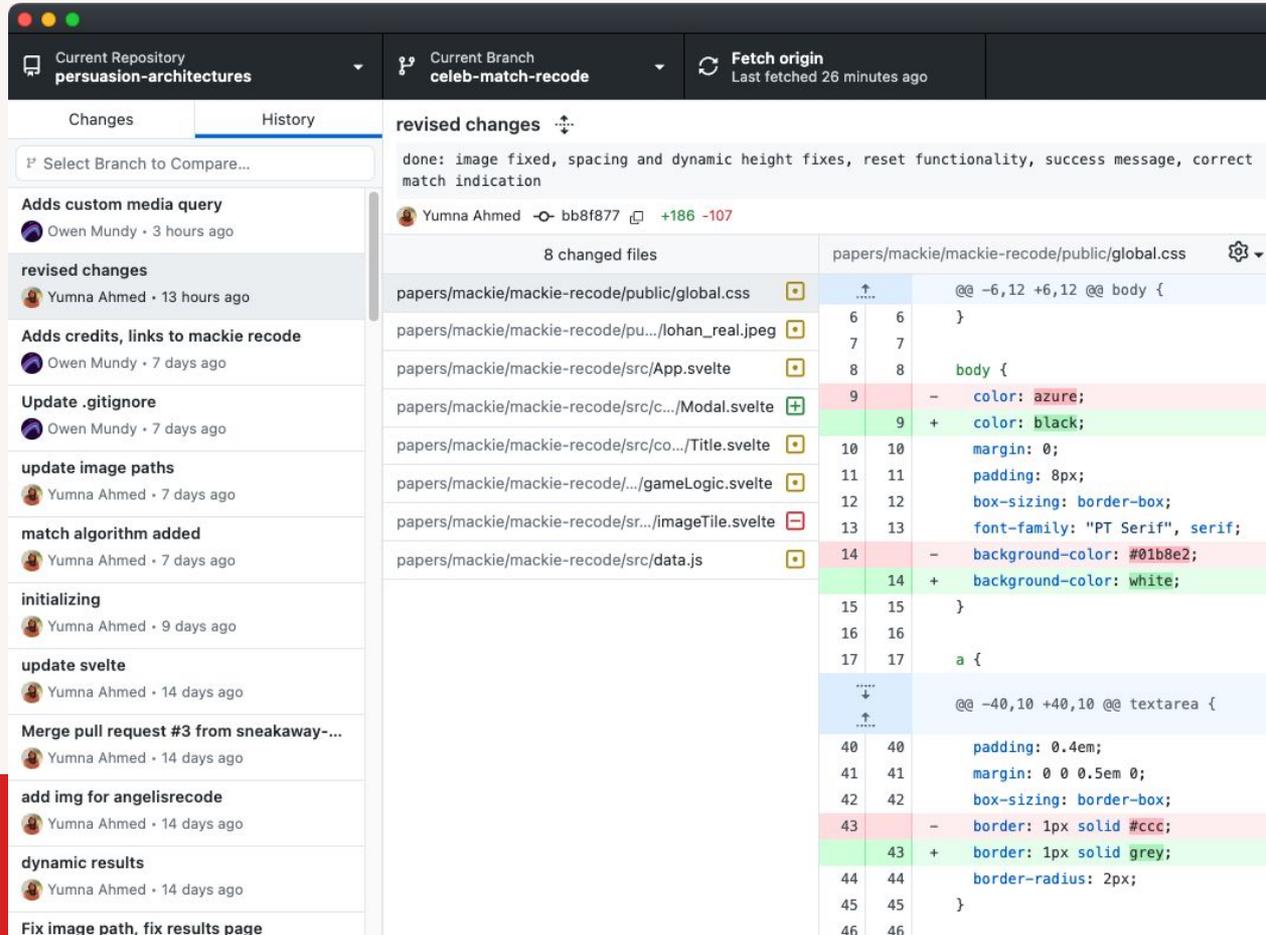
The image shows a file explorer window with a directory structure. The folders are listed as follows:

- Project
- ProjectNew_v1
- ProjectNew_v2
- ProjectNew_v2_bugfix_v1
- ProjectNew_v2_bugfix_v2
- ProjectNew_v3
- Project final
- Project final 2
- Project final final
- Project final final - this one
- Project final final - this one, seriously
- Project final final - LOOK HERE FIRST!
- Project final final - ACTUALLY, NO, LOOK HERE! THIS IS THE LAST ONE!
- Project final final - ACTUALLY, NO, LOOK HERE! THIS IS THE LAST ONE! 2

Git + Github

What is version control?

- **Version control** provides solutions for these common file editing problems.
- You can review changes to documents over time, manage changes you want to keep, and automate integration.
- You can also name versions, incorporate work from collaborators, and much more.



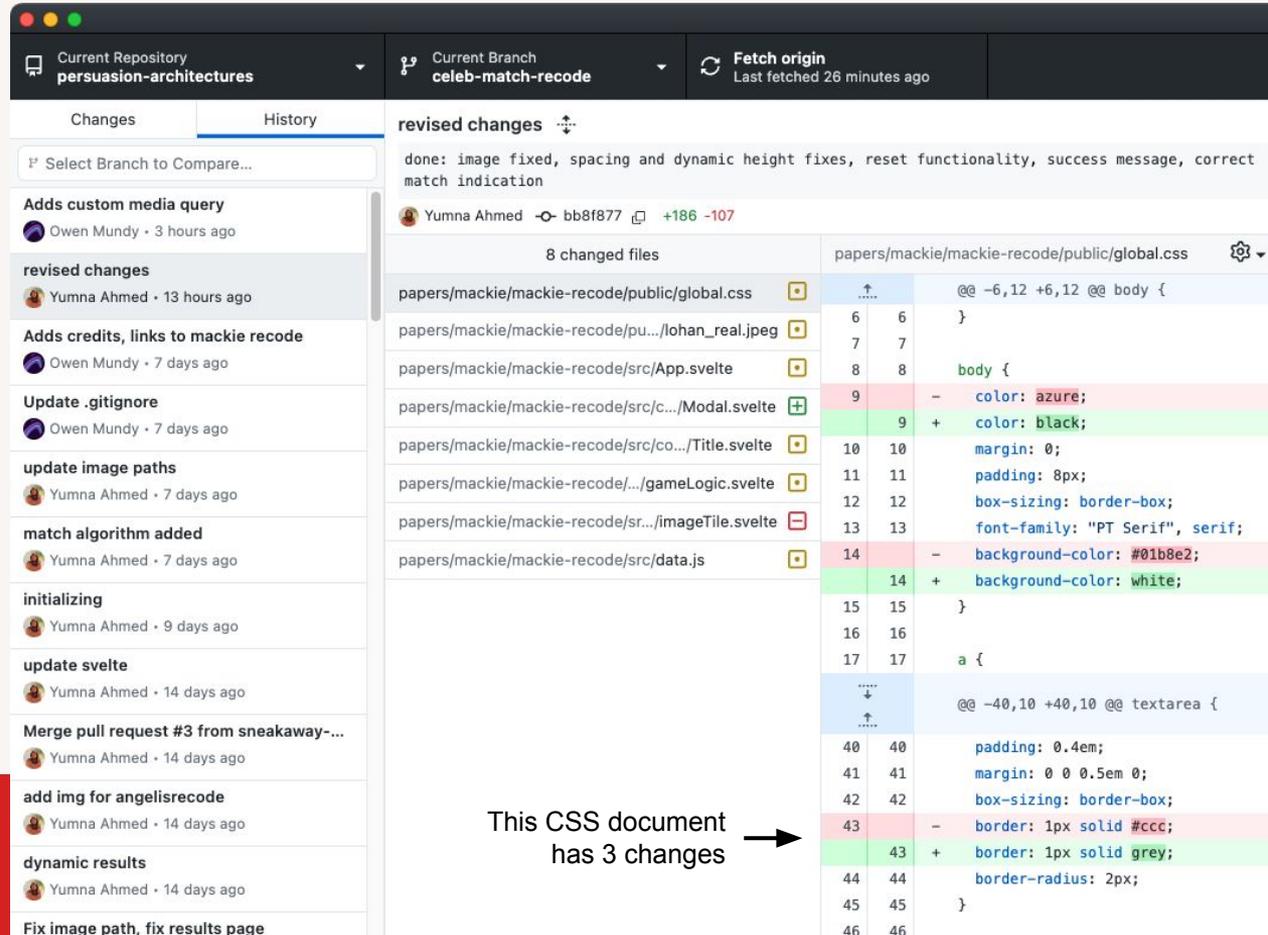
The screenshot displays a version control interface with the following components:

- Current Repository:** persuasion-architectures
- Current Branch:** celeb-match-recode
- Fetch origin:** Last fetched 26 minutes ago
- Changes:** A list of recent commits including "Adds custom media query", "revised changes", "Adds credits, links to mackie recode", "Update .gitignore", "update image paths", "match algorithm added", "initializing", "update svelte", "Merge pull request #3 from sneakaway-...", "add img for angelisrecode", "dynamic results", and "Fix image path, fix results page".
- revised changes:** A summary of the current commit: "done: image fixed, spacing and dynamic height fixes, reset functionality, success message, correct match indication" by Yumna Ahmed.
- Diff View:** A table showing 8 changed files. The selected file is `papers/mackie/mackie-recode/public/global.css`. The diff shows changes to the `body` and `textarea` styles, including updates to colors, margins, padding, and borders.

File	Line	Change	Code
papers/mackie/mackie-recode/public/global.css	6		<code>@@ -6,12 +6,12 @@ body {</code>
papers/mackie/mackie-recode/public/global.css	7		<code>}</code>
papers/mackie/mackie-recode/src/App.svelte	8		<code>body {</code>
papers/mackie/mackie-recode/src/c.../Modal.svelte	9	-	<code>color: azure;</code>
papers/mackie/mackie-recode/src/co.../Title.svelte	10	+	<code>color: black;</code>
papers/mackie/mackie-recode/src/co.../Title.svelte	10		<code>margin: 0;</code>
papers/mackie/mackie-recode/src/co.../Title.svelte	10		<code>padding: 8px;</code>
papers/mackie/mackie-recode/src/co.../Title.svelte	11		<code>box-sizing: border-box;</code>
papers/mackie/mackie-recode/src/co.../Title.svelte	12		<code>font-family: "PT Serif", serif;</code>
papers/mackie/mackie-recode/src/co.../Title.svelte	13		<code>font-family: "PT Serif", serif;</code>
papers/mackie/mackie-recode/src/data.js	14	-	<code>background-color: #01b8e2;</code>
papers/mackie/mackie-recode/src/data.js	14	+	<code>background-color: white;</code>
papers/mackie/mackie-recode/src/data.js	15		<code>}</code>
papers/mackie/mackie-recode/src/data.js	16		<code>}</code>
papers/mackie/mackie-recode/src/data.js	17		<code>a {</code>
papers/mackie/mackie-recode/src/data.js	40		<code>padding: 0.4em;</code>
papers/mackie/mackie-recode/src/data.js	41		<code>margin: 0 0 0.5em 0;</code>
papers/mackie/mackie-recode/src/data.js	42		<code>box-sizing: border-box;</code>
papers/mackie/mackie-recode/src/data.js	43	-	<code>border: 1px solid #ccc;</code>
papers/mackie/mackie-recode/src/data.js	43	+	<code>border: 1px solid grey;</code>
papers/mackie/mackie-recode/src/data.js	44		<code>border-radius: 2px;</code>
papers/mackie/mackie-recode/src/data.js	45		<code>}</code>
papers/mackie/mackie-recode/src/data.js	46		<code>}</code>

What is Git?

- **Git** is a free and open source distributed version control system.
- A Git project is known as a **repository** (or “repo”).
- Saving sets of changes to one or more files is called a **commit**.
- Every change to every file in every commit in a repo can be viewed and compared any time.



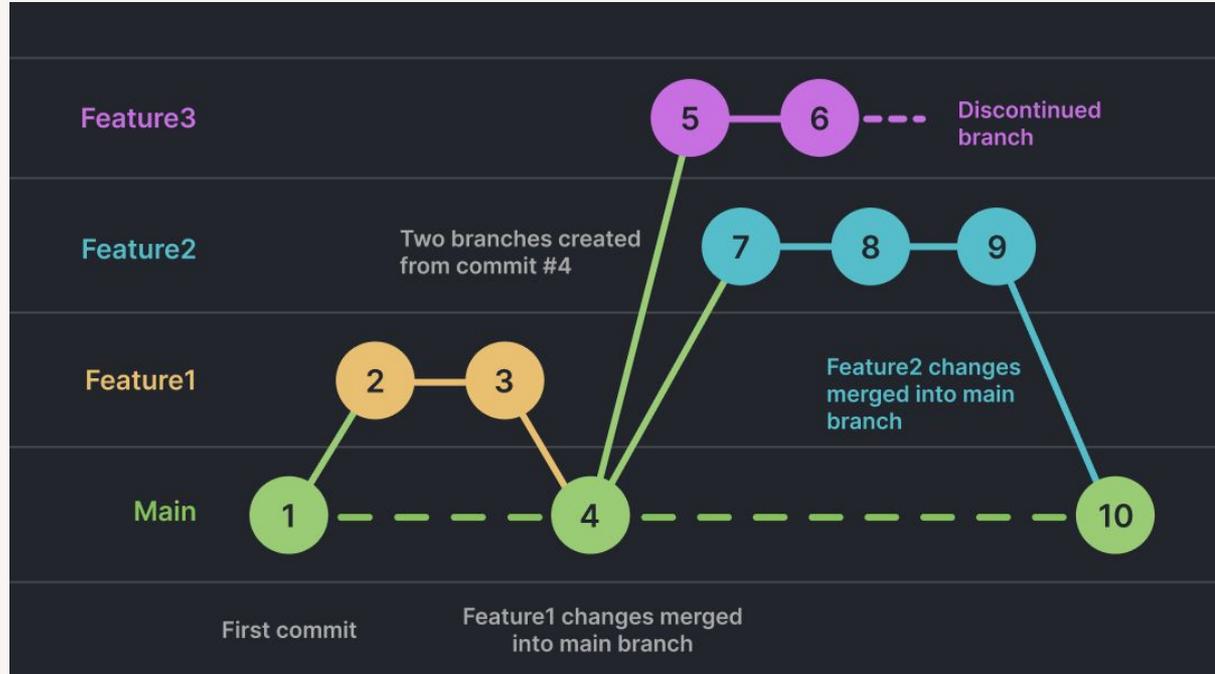
The screenshot shows a Git web interface for the repository 'persuasion-architectures' on the 'celeb-match-recode' branch. The 'History' tab is active, showing a list of commits. The most recent commit by Yumna Ahmed is selected, showing a diff for 'papers/mackie/mackie-recode/public/global.css'. The diff highlights three changes: a removal of a blue border, an addition of a grey border, and a change in the background color from white to #ccc.

File Path	Line	Change	Code Snippet
papers/mackie/mackie-recode/public/global.css	6	6	@@ -6,12 +6,12 @@ body {
papers/mackie/mackie-recode/public/global.css	7	7	}
papers/mackie/mackie-recode/src/App.svelte	8	8	body {
papers/mackie/mackie-recode/src/c.../Modal.svelte	9	-	color: azure;
papers/mackie/mackie-recode/src/co.../Title.svelte	10	+	color: black;
papers/mackie/mackie-recode/.../gameLogic.svelte	11	11	margin: 0;
papers/mackie/mackie-recode/.../gameLogic.svelte	12	12	padding: 8px;
papers/mackie/mackie-recode/.../gameLogic.svelte	13	13	box-sizing: border-box;
papers/mackie/mackie-recode/.../gameLogic.svelte	14	13	font-family: "PT Serif", serif;
papers/mackie/mackie-recode/src/data.js	14	-	background-color: #01b8e2;
papers/mackie/mackie-recode/src/data.js	14	+	background-color: white;
papers/mackie/mackie-recode/src/data.js	15	15	}
papers/mackie/mackie-recode/src/data.js	16	16	
papers/mackie/mackie-recode/src/data.js	17	17	a {
papers/mackie/mackie-recode/src/data.js	40	40	padding: 0.4em;
papers/mackie/mackie-recode/src/data.js	41	41	margin: 0 0 0.5em 0;
papers/mackie/mackie-recode/src/data.js	42	42	box-sizing: border-box;
papers/mackie/mackie-recode/src/data.js	43	-	border: 1px solid #ccc;
papers/mackie/mackie-recode/src/data.js	43	+	border: 1px solid grey;
papers/mackie/mackie-recode/src/data.js	44	44	border-radius: 2px;
papers/mackie/mackie-recode/src/data.js	45	45	}
papers/mackie/mackie-recode/src/data.js	46	46	

This CSS document has 3 changes →

What is a Git branch?

- To add new features, you create a **branch** where you can safely make and test changes.
- When others want to preview or compare your work, they simply switch to your branch.
- When the feature is ready, you use Git to **merge**, which automatically integrates all updated files and checks for any **conflicts** in your new edits.



What is a Git diff?

Github Desktop is a free application that lets you manage commits

- A git **diff** (as in “difference”) shows file-level changes, revealing what was **updated**, **deleted** or **added** in a each file, for every a commit, across the whole project.

The screenshot shows the Github Desktop interface for a repository named 'persuasion-architectures'. The current branch is 'celeb-match-recode'. The interface is split into three main sections: a commit history list on the left, a list of changed files in the middle, and a diff view on the right.

Commit History (Left):

- Commit name → Adds custom media query (Owen Mundy · 3 hours ago)
- revised changes (Yumna Ahmed · 13 hours ago)
- Adds credits, links to mackie recode (Owen Mundy · 7 days ago)
- Update .gitignore (Owen Mundy · 7 days ago)
- update image paths (Yumna Ahmed · 7 days ago)
- match algorithm added (Yumna Ahmed · 7 days ago)
- initializing (Yumna Ahmed · 9 days ago)
- update svelte (Yumna Ahmed · 14 days ago)
- Merge pull request #3 from sneakaway-... (Yumna Ahmed · 14 days ago)
- add img for angelisrecode (Yumna Ahmed · 14 days ago)
- dynamic results (Yumna Ahmed · 14 days ago)
- Fix image path, fix results page

Changed Files (Middle):

8 changed files

- papers/mackie/mackie-recode/public/global.css
- papers/mackie/mackie-recode/pu.../lohan_real.jpeg
- papers/mackie/mackie-recode/src/App.svelte
- papers/mackie/mackie-recode/src/c.../Modal.svelte
- papers/mackie/mackie-recode/src/co.../Title.svelte
- papers/mackie/mackie-recode/.../gameLogic.svelte
- papers/mackie/mackie-recode/sr.../imageTile.svelte
- papers/mackie/mackie-recode/src/data.js

Diff View (Right):

revised changes

done: image fixed, spacing and dynamic height fixes, reset functionality, success message, correct match indication

Yumna Ahmed · bb8f877 · +186 -107

papers/mackie/mackie-recode/public/global.css

```
@@ -6,12 +6,12 @@ body {
6 6   }
7 7
8 8   body {
9 -   color: azure;
9 +   color: black;
10 10  margin: 0;
11 11  padding: 8px;
12 12  box-sizing: border-box;
13 13  font-family: "PT Serif", serif;
14 - background-color: #01b8e2;
14 + background-color: white;
15 15  }
16 16
17 17  a {
...
@@ -40,10 +40,10 @@ textarea {
40 40  padding: 0.4em;
41 41  margin: 0 0 0.5em 0;
42 42  box-sizing: border-box;
43 - border: 1px solid #ccc;
43 + border: 1px solid grey;
44 44  border-radius: 2px;
45 45  }
46 46
```

Commit name →

This commit shows
6 modified, 1 new,
and 1 deleted file

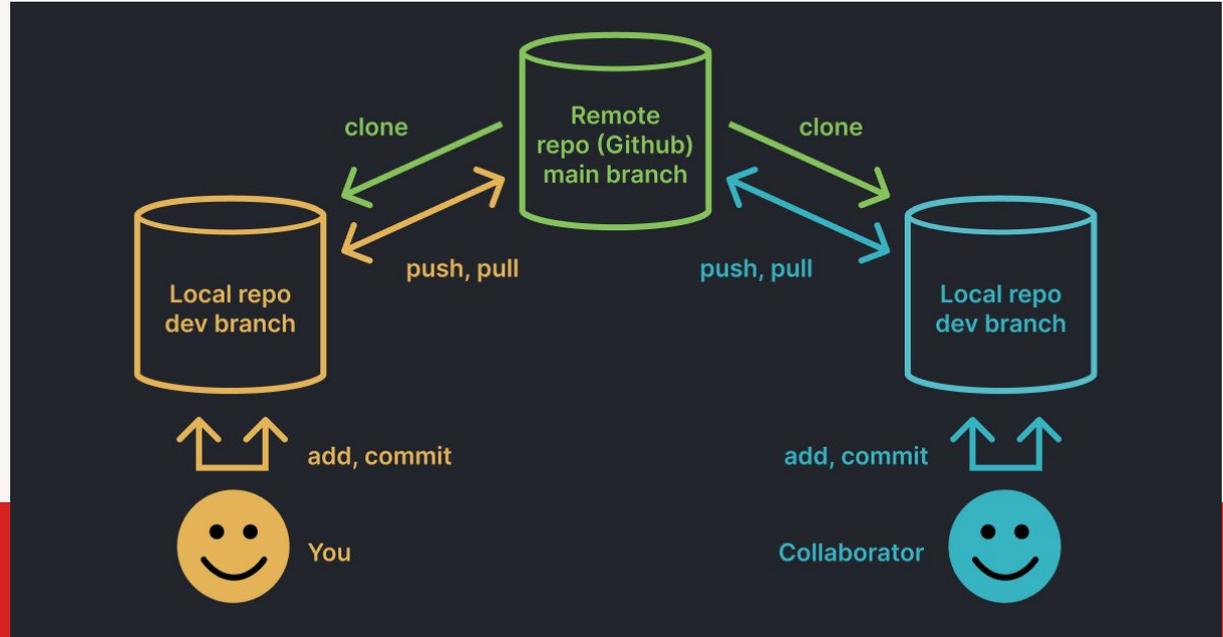
This CSS document
has 3 changes

What is Github?

- [GitHub](#) (and others [Bitbucket](#), [Gitlab](#)) let you share code repositories.
- Developers push their commits to a single repository, and pull the updates that others make.
- Github keeps track of changes, and helps you sync them so everyone has the same code.

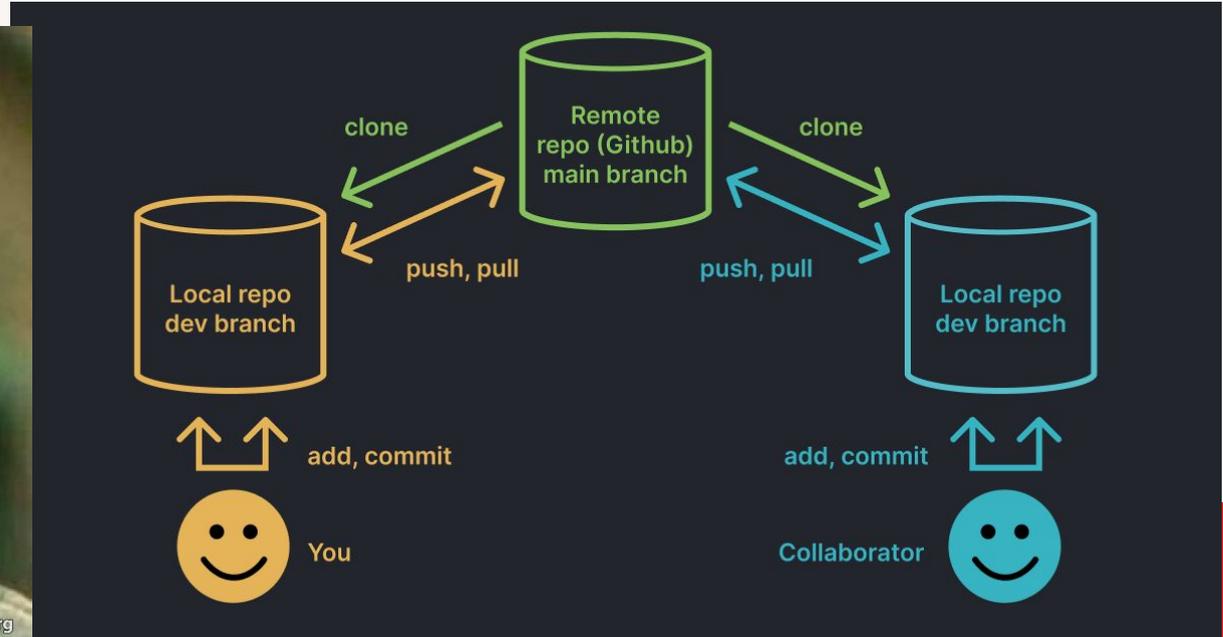
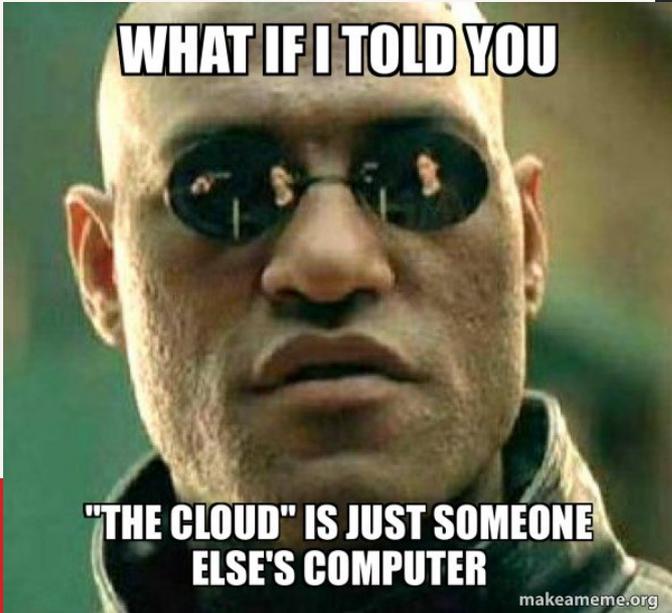


Github Octocat



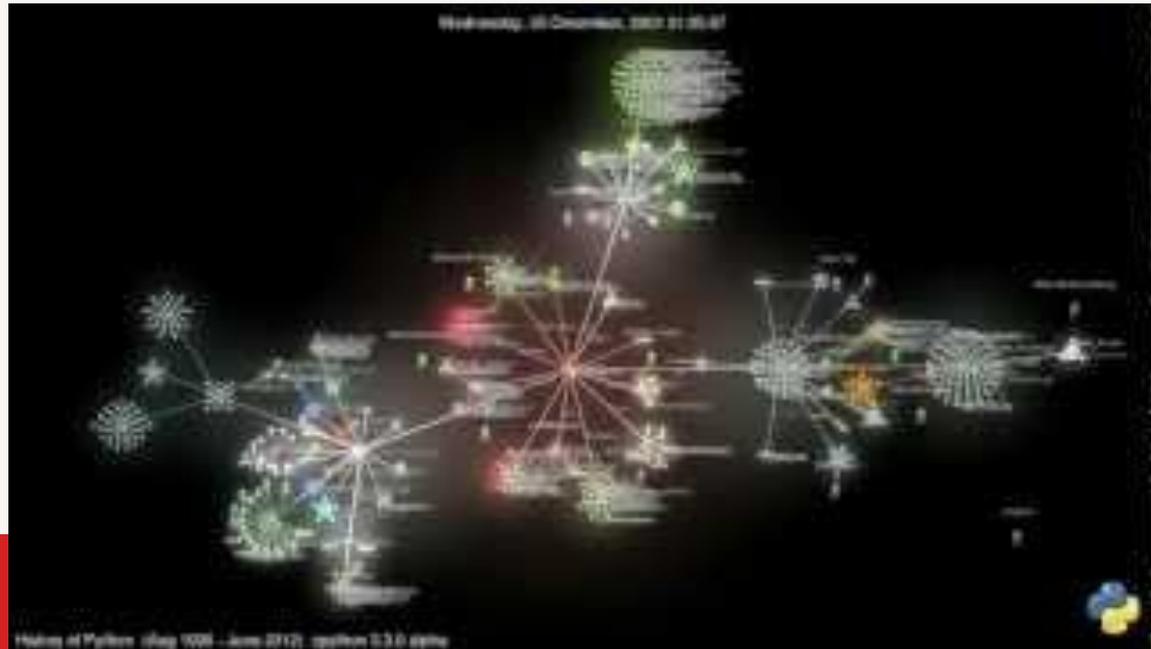
Remote vs local

- **Remote** refers to a repository on Github, or a web server. **Local** means your own device.
- 👉 I will demonstrate Part 2 only on the remote (Github.com) using a browser.
- Part 3, I show how to clone a repo, edit in VS Code and push back to Github to update your website.



Source

- This [visualization](#) shows the entire history of collaborative development of the Python language.
- Coders fly around the network graph, editing files (nodes) in the folder hierarchy (edges)
- Also shows how important version control is for open source development, the internet, etc.



Part 2

Create a Github Pages site
with Markdown

1. Create a website with Github Pages 4:00
2. Add Jekyll themes with github.dev 10:00

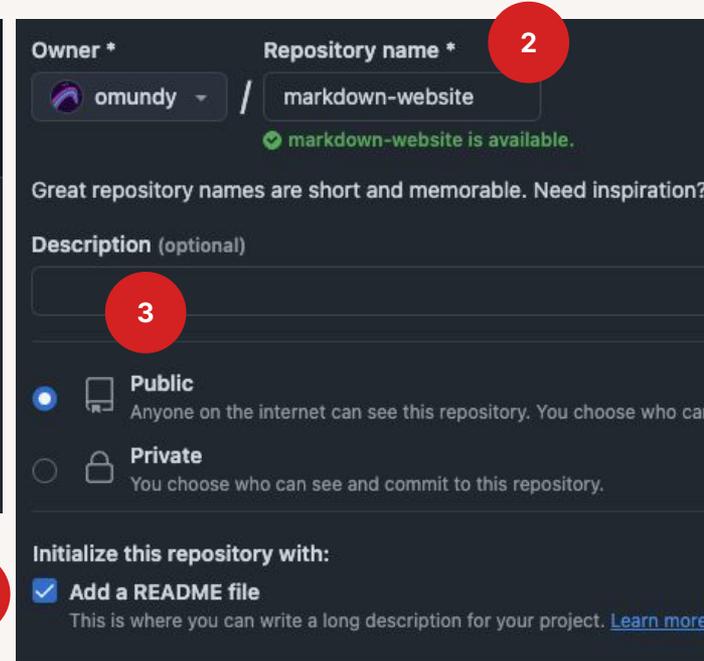
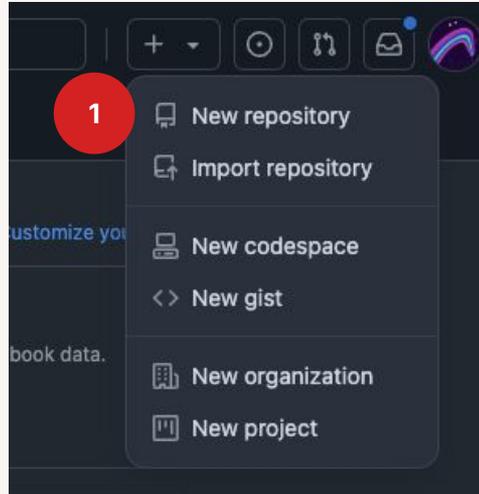
Create a website with Github Pages

I will demonstrate the 👉 steps

Create a repository

👉 Login to [Github.com](https://github.com) (or [join](#)) to create your website...

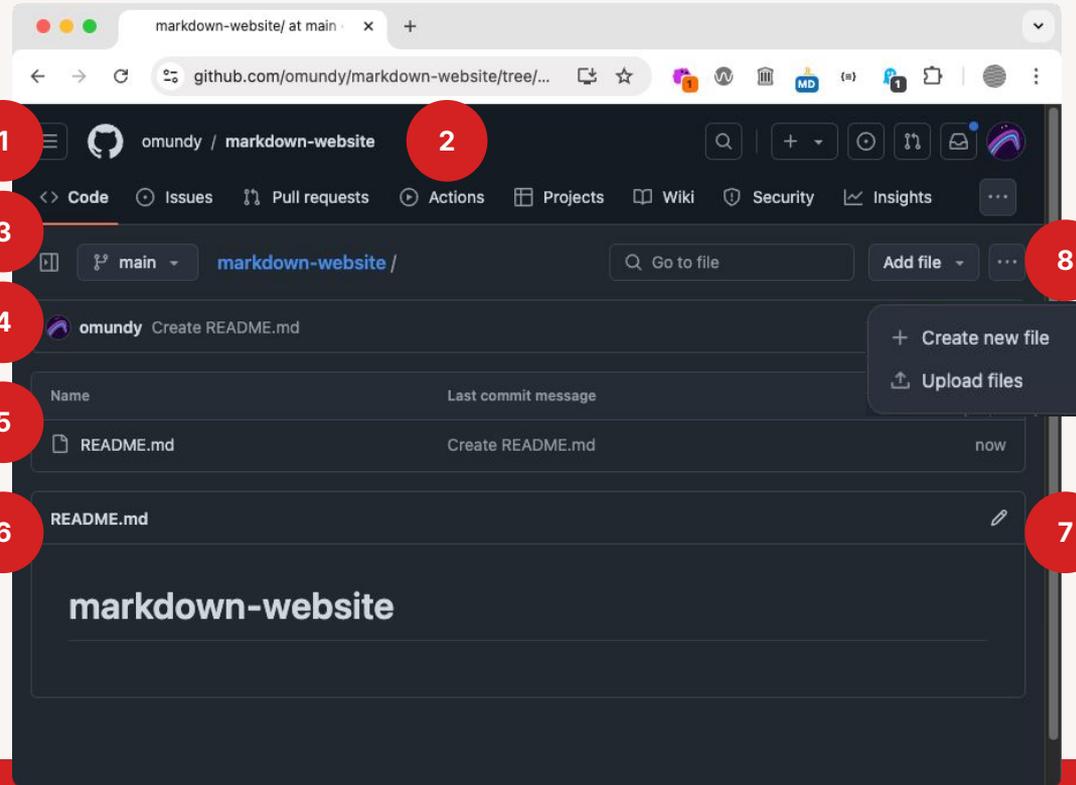
1. Click the + (top right) and choose **New repository**
2. Give it a simple name: **markdown-website** (you can change this later)
3. Leave it public
4. Select **Add a README**
5. Click **Create Repository**



About your "repo"

Your new project is ready to go! Here are main parts of a repo:

1. Your **username/repo-name**
2. ... which is also the URL
3. You have a **main** branch
4. Your most recent **commit**
5. All the files in the repo
6. **README.md** (usually contains info about your project)
7. The  pencil icon (to edit a file)
8. The **Add file** button



"Hello, World!"

👉 Create your first Markdown file.

1. Click **Add file > Create new file**
2. Name your new file **index.md**
3. In the edit box, type anything

This will be an **awesome website**

4. Click **Commit changes...**
5. Click **Commit changes** again

⚠️ The commit message is required, but for simple updates the default is fine.

The screenshot shows the GitHub web interface for a repository named 'omundy / markdown-website'. The browser address bar shows 'github.com/omundy/markdown-website/new/'. The repository name is displayed at the top. The navigation bar includes 'Code', 'Issues', 'Pull requests', 'Actions', 'Projects', 'Wiki', 'Security', and 'In'. The file 'index.md' is selected in the 'main' branch. The 'Commit changes...' button is visible. The edit box contains the text 'This will be an awesome *website*'. The 'Commit changes' dialog is open, showing the 'Commit message' field with the text 'Create index.md' and the 'Extended description' field with the text 'Add an optional extended description..'. The 'Commit changes' button is highlighted in green.

Publish the website

👉 Publish your site with Github Pages.

1. Click **Settings** (top right)
2. Click **Pages** (bottom left)
3. Select branch: **main**
4. Click **Save**
5. Wait ~1 minute for Github to build and publish the site, then **refresh** the page...

5

github.com/omundy/markdown-website/settings/pages

omundy / markdown-website

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

General GitHub Pages

Access [GitHub Pages](#) is designed to host your personal, organization, or project pages from a GitHub repository.

Collaborators

Moderation options

Code and automation

Build and deployment

Source

Deploy from a branch

Branch

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.](#)

main / (root) Save

3

4

2

Pages

Security

Code security

Deploy keys

About build & deployment

While we wait... Github uses **Actions** (automated scripts) to process your files:

1. They **build** your site using [Jekyll](#), a static site generator that converts all your **.md** files to **.html** (hypertext)
2. Then, your site is **deployed** by copying your files to a public server.
3. Refresh this page to see the URL of your published site at the top.
4. Right click, and open this link in a new tab.

The screenshot shows the GitHub Pages settings interface. The 'Build and deployment' section is active, showing the 'main' branch selected for building and the root directory for deployment. A notification at the top indicates the site is live at <https://omundy.github.io/markdown-website/>. The browser's address bar shows the URL `github.com/omundy/markdown-website/settings/pages`.

Your site is live at...

Congratulations! You just published a website!

⚠ Note the structure of these URLs:

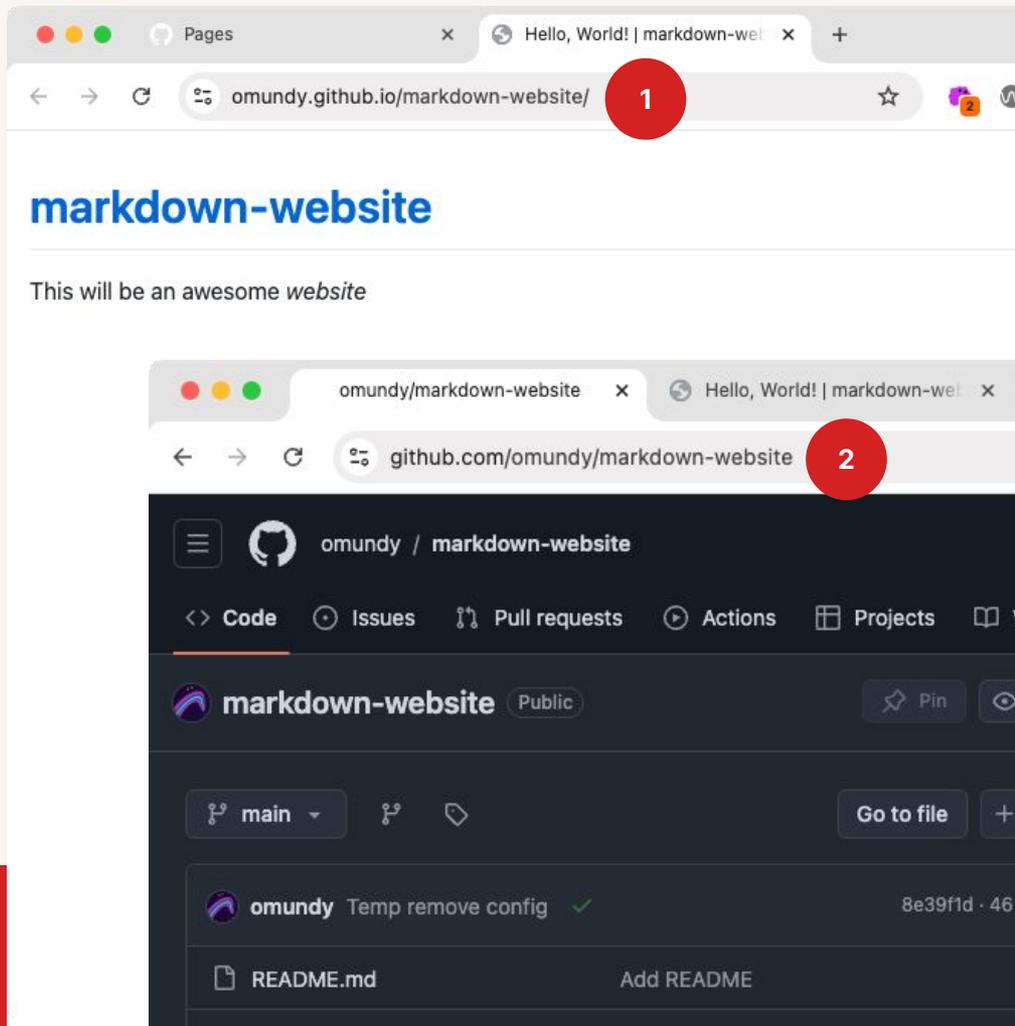
Your website address uses github.io

1. `username.github.io/repo-name`

The repository URL uses github.com

2. `github.com/username/repo-name`

They use different **TLDs (top-level domain)**

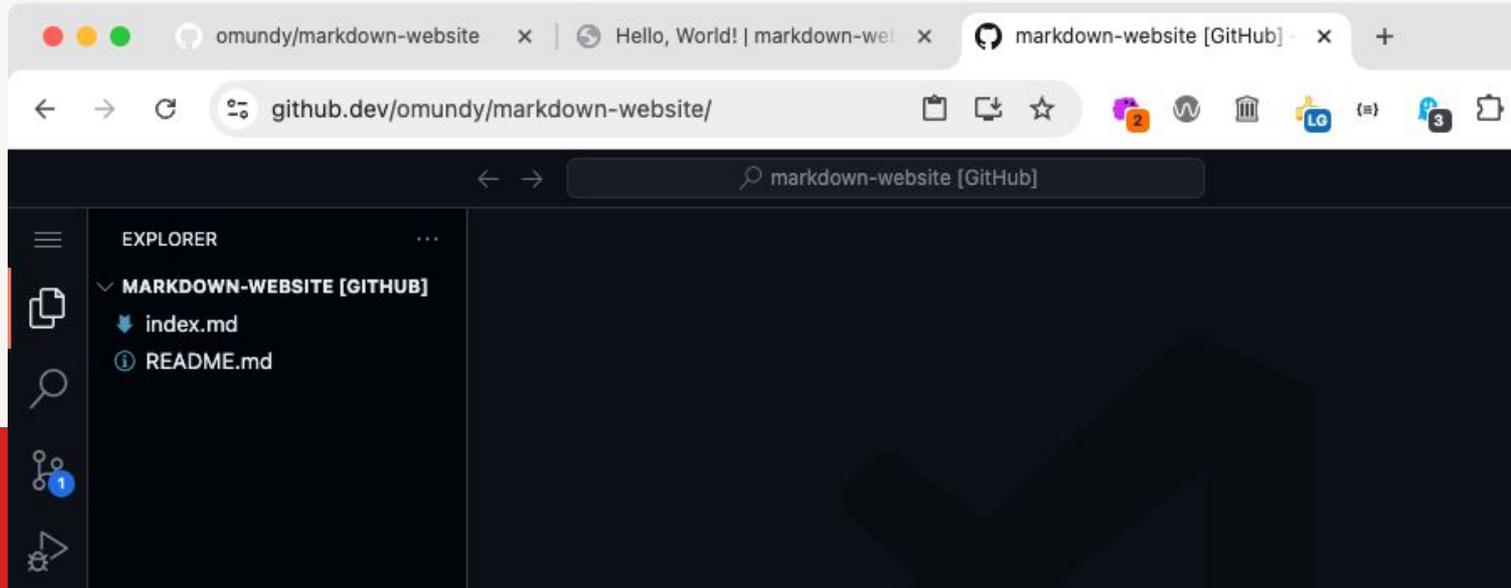


Add Jekyll themes with github.dev

Open github.dev

👉 Let's change the appearance of your site. We'll be using the **github.dev** online editor:

1. Leave these two tabs open (so to switch back and forth), and open a third tab.
2. Type the following url, but with your username: **github.dev/username/markdown-website**
3. Allow github.dev to login with Github. e.g. <https://github.dev/omundy/markdown-website/>



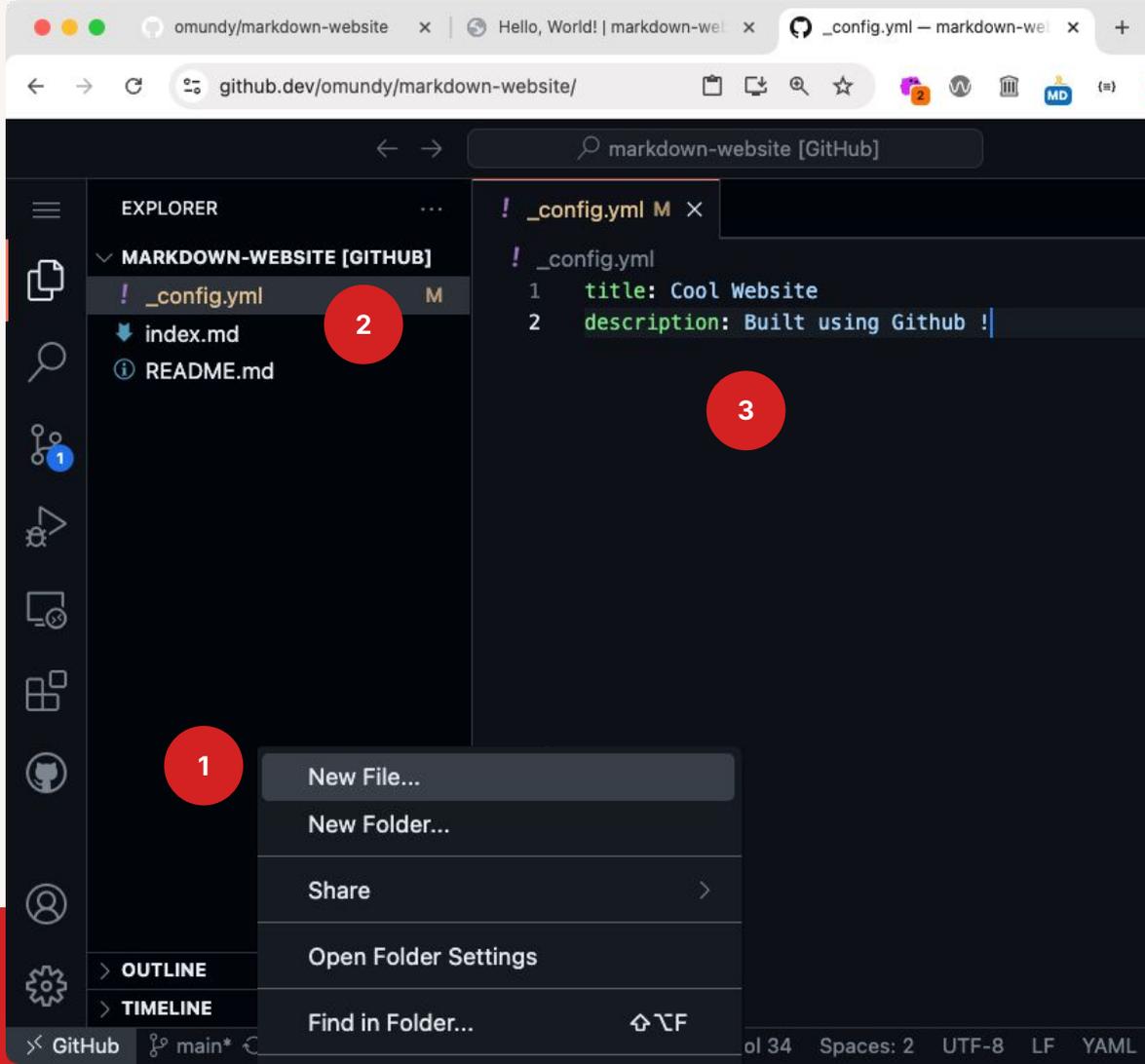
😊 Github.dev is an online version of VS Code!

Create a config

👉 Add a [Jekyll](#) configuration file

1. Right click in the file explorer (below the list of files) and choose **New file...**
2. Name it **_config.yml**
3. To add configuration rules you add a key and value separated by a colon. Add these two rules now with whatever value you like.

⚠ **_config.yml** begins with an underscore



Commit your changes

👉 Commit the changes to your repo with github.dev...

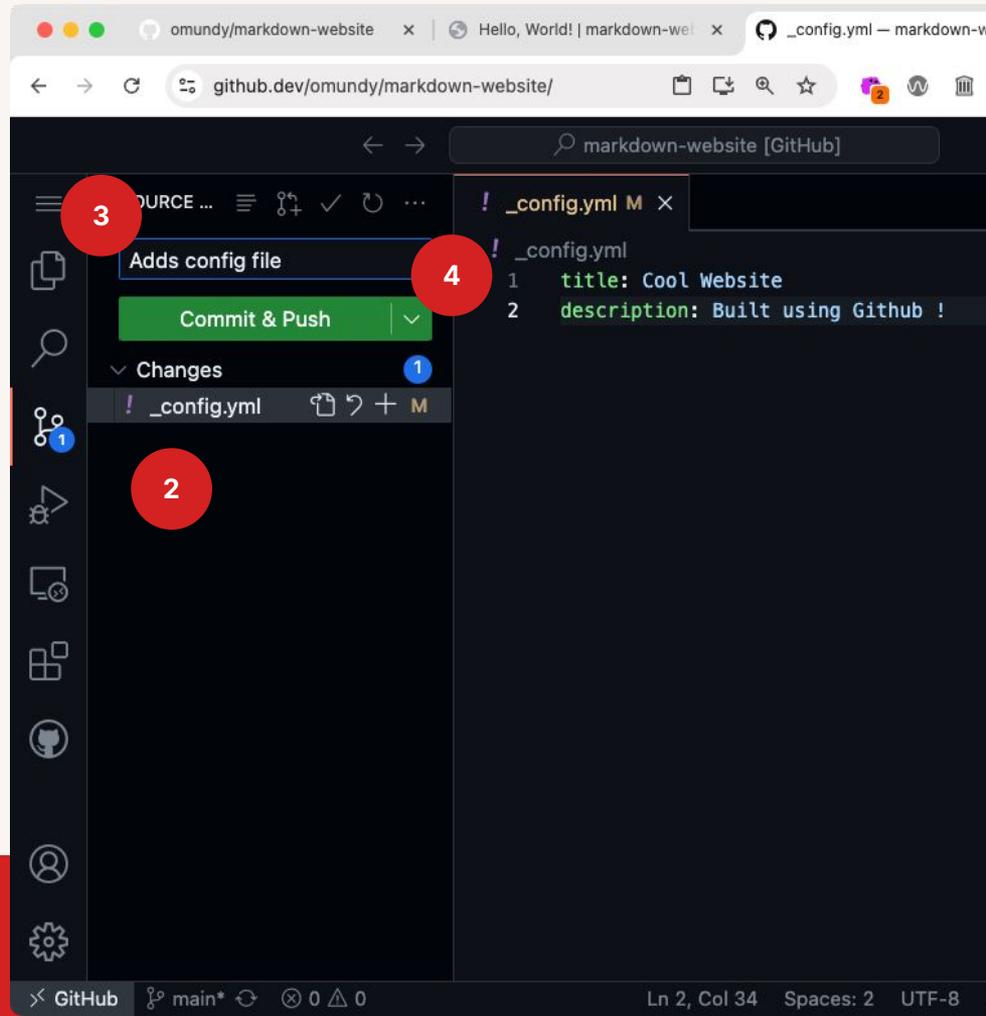
1. Click the **Source Control** icon on the left.
2. The blue dot indicates changes to your repo, which you can see in the Changes list.
3. Add a descriptive commit message like **"Adds config file"**
4. Press **Commit & Push** to commit your changes and initiate a new build.

1

2

3

4



Markdown

While we wait for the build...

- Markup languages let you create rich text (bold, italics, lists, headings, links, etc.) using a [special syntax](#)
- We've been using markdown. Later on we'll use HTML

```
1
2 # H1
3 ## H2
4 ### H3
5
6 > blockquote
7
8 **bold text**
9
10 *italicized text*
11
12 ## Ordered List
13
14 1. First item
15 2. Second item
16 3. Third item
17
18 ## Unordered List
19
20 - First item
21 - Second item
22 - Third item
23
24 `a code sample`
25
26 \[link\]\(https://www.markdownguide.org\)
27
28  !\[cat\]\(https://omundy.github.io/dig245-hel\)
29
```

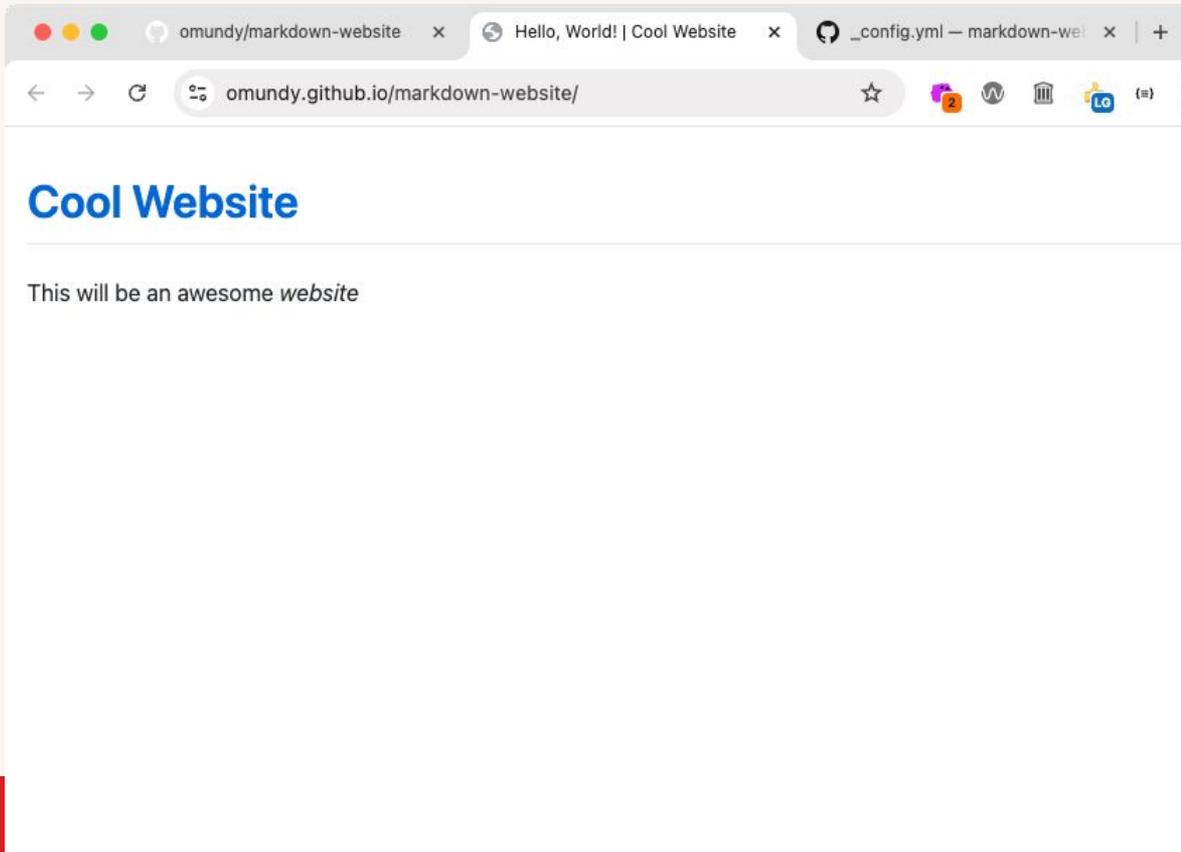
```
H1
H2
H3
| blockquote
bold text
italicized text
Ordered List
1. First item
2. Second item
3. Third item
Unordered List
• First item
• Second item
• Third item
a code sample
link
```



View your changes

👉 To see your changes:

1. After a minute.
2. Click on the website tab
3. Refresh the page to see your updates.

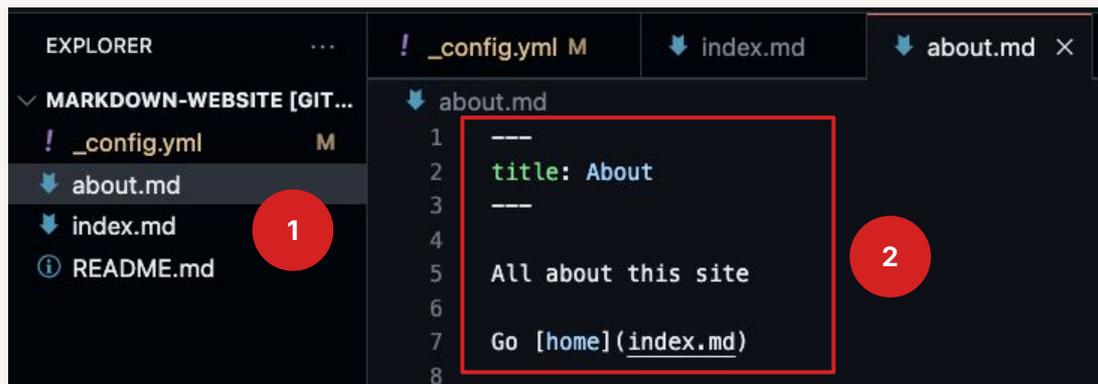


Add a new page

👉 In the github.dev tab...

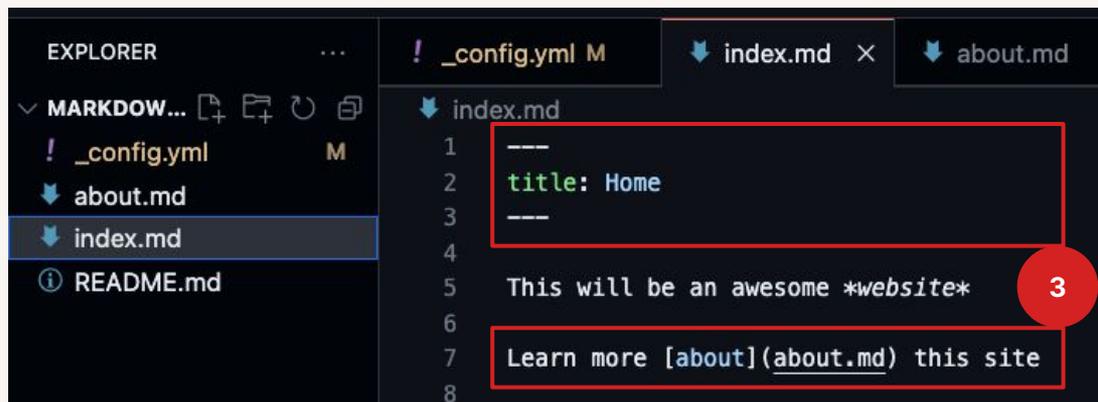
1. Right click in the file explorer and create a new file named **about.md**
2. Add the text (red box).
3. Then in **index.md** add the new text (red boxes).
4. Click on the **Version Control** tab and commit your work.

👉 Line #7 creates a [hyperlink](#) using Markdown. The text inside the square brackets [...] will be shown as a clickable link letting others navigate to the page defined inside the parentheses (...).



The screenshot shows the VS Code interface. On the left, the Explorer sidebar shows a file explorer for 'MARKDOWN-WEBSITE [GIT...]'. The files listed are `_config.yml`, `about.md`, `index.md`, and `README.md`. A red circle with the number '1' is placed over the `about.md` file. On the right, the editor shows the content of `about.md`. The text is: `---`, `title: About`, `---`, `All about this site`, and `Go [home](index.md)`. A red box highlights the first three lines (the front matter), and another red circle with the number '2' is placed to the right of the text.

😊 The three dashes defines "[front matter](#)" (metadata) for a Jekyll page.

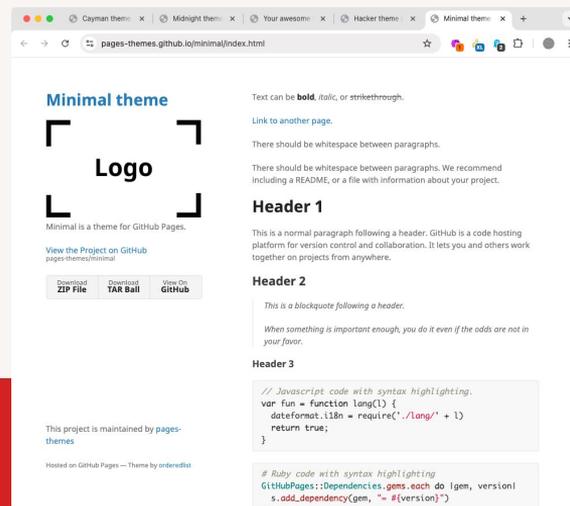
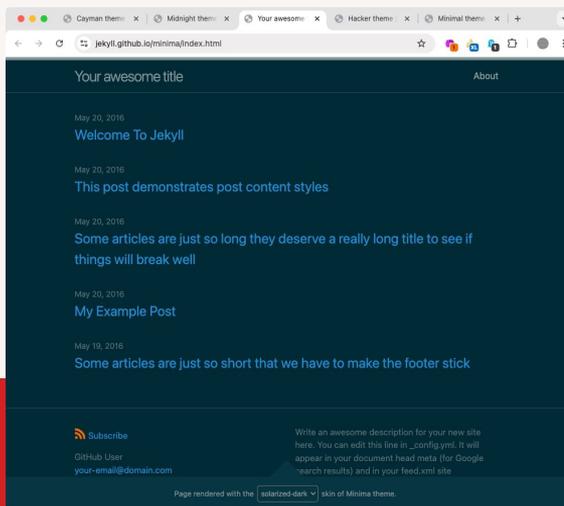
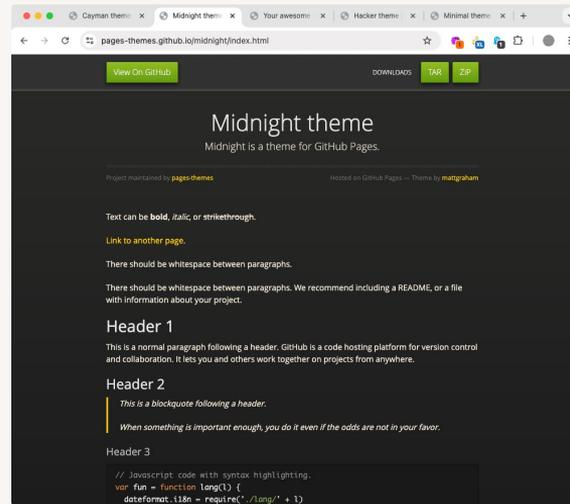
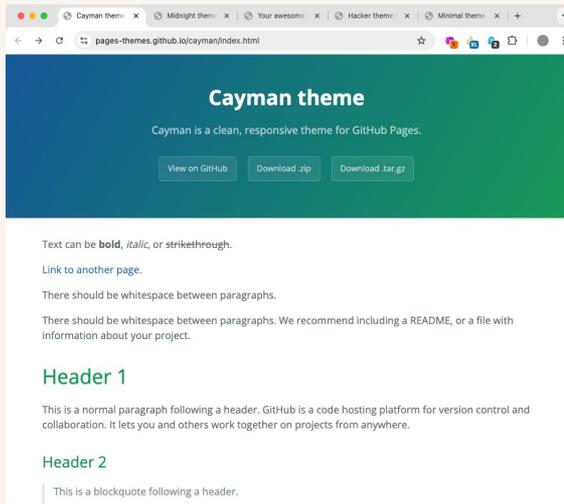


The screenshot shows the VS Code interface. On the left, the Explorer sidebar shows the same file explorer as the previous screenshot. The `index.md` file is selected. On the right, the editor shows the content of `index.md`. The text is: `---`, `title: Home`, `---`, `This will be an awesome *website*`, and `Learn more [about](about.md) this site`. A red box highlights the first three lines (the front matter), and another red box highlights the last line (the link). A red circle with the number '3' is placed to the right of the text.

About Jekyll themes

While we wait...

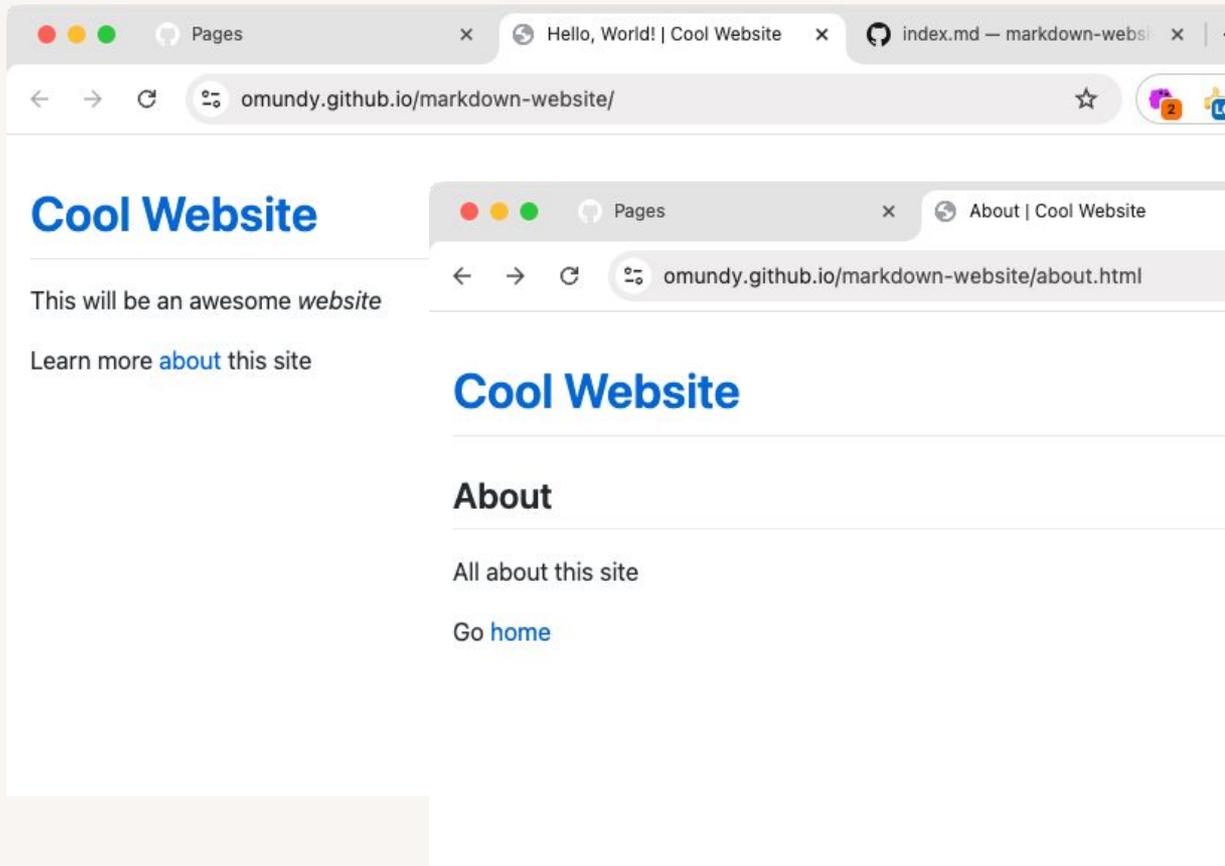
- GitHub Pages uses Jekyll to transform Markdown to HTML documents.
- Markdown is super simple to write but it lacks a usable layout.
- Adding a Jekyll theme can let you incorporate a navigation bar, columns, a logo, and even a blog!



Test your links

👉 Refresh your website and click to navigate between the two. Notice two things:

- Files named **index.*** are treated in a special way on web servers. They are the default page (a.k.a. Home page) for a directory or domain.
- The about page on your published site is now called **about.html**



Add a Jekyll theme

👉 Add a [Github-supported Jekyll theme](#):

1. Edit your `_config.yml` file
2. Add to the bottom

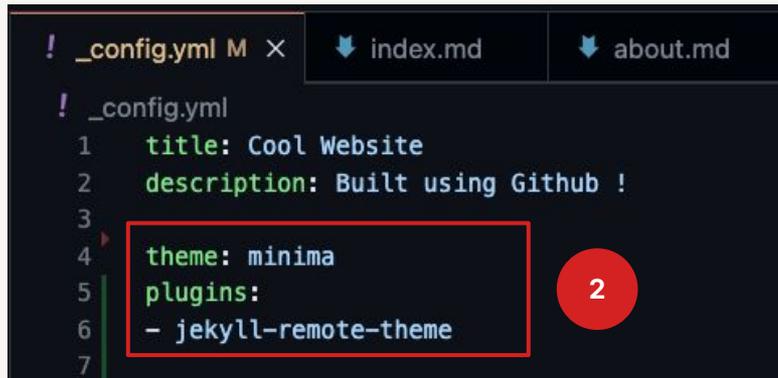
theme: minima

plugins:

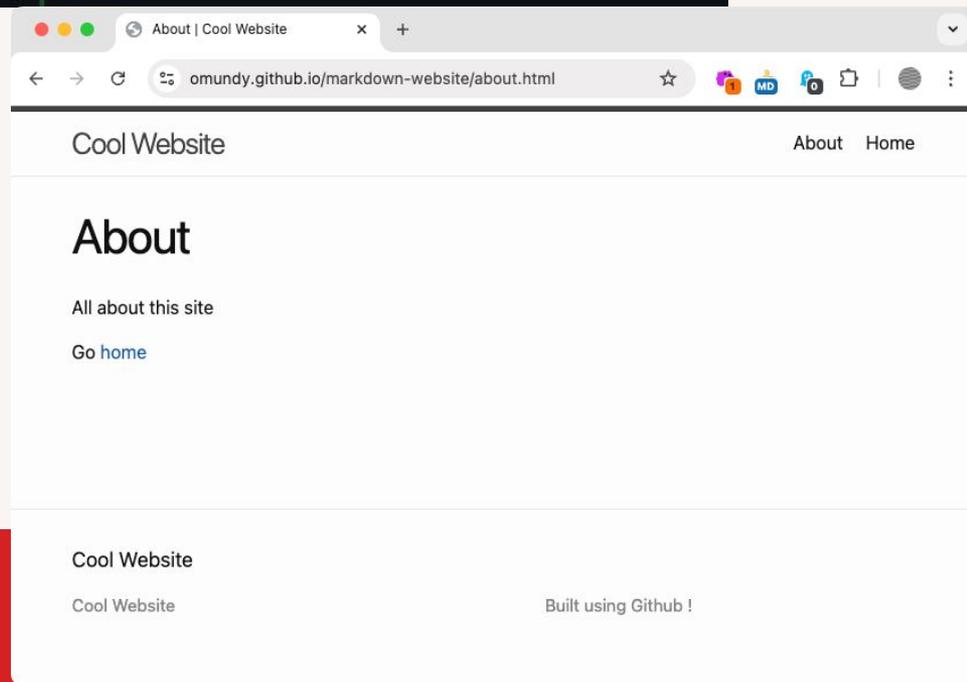
- jekyll-remote-theme

3. Commit your work and Jekyll will use the [Minima](#) theme when it builds your site.

The [Minima](#) theme adds navigation and several other features.



```
! _config.yml M x index.md about.md
! _config.yml
1 title: Cool Website
2 description: Built using Github !
3
4 theme: minima
5 plugins:
6 - jekyll-remote-theme
7
```



Build & Deployment

1. Changing files in your repo initiates a new build. Github.dev saves time by letting you edit several files per each build.
2. 👉 The **Deployments** link on the main page of your repo will show you the status of each build.
3. ⚠️ Builds can fail if there is a typo or an unsupported theme in the config file. Click through to find out why and make a new commit to retry.

In-progress

Deployments 19

github-pages

[+ 18 deployments](#)

2

Deployments 14

github-pages 6 minutes ago

[+ 13 deployments](#)

Completed

The screenshot shows the GitHub interface for the repository 'omundy/markdown-website'. The 'Deployments' tab is active, showing a list of deployments. The most recent deployment is 'github-pages', which was deployed 4 minutes ago to the 'main' branch. Below it, there are two failed deployments: 'minima theme?' and 'Test theme (again)', both failed 4 and 7 minutes ago respectively. The 'Add about' deployment failed 28 minutes ago. The interface includes navigation links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings.

2

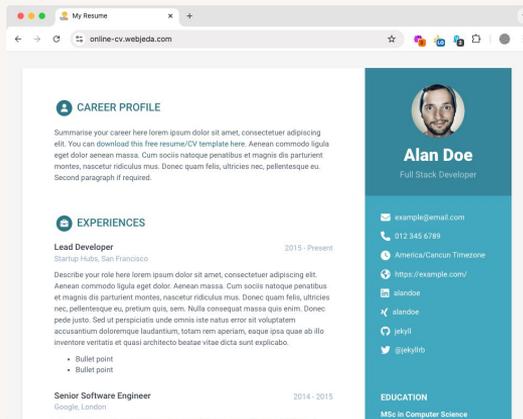
The screenshot shows the 'Summary' page for a failed GitHub Actions workflow. The workflow is named 'build' and failed 8 minutes ago in 15s. The 'Jobs' section shows three jobs: 'build' (failed), 'report-build-status' (succeeded), and 'deploy' (pending). The 'build' job is expanded, showing a failure in the 'Build with Jekyll' step. The error message is partially visible: 'Configuration from...' and 'process'.

Jekyll Themes

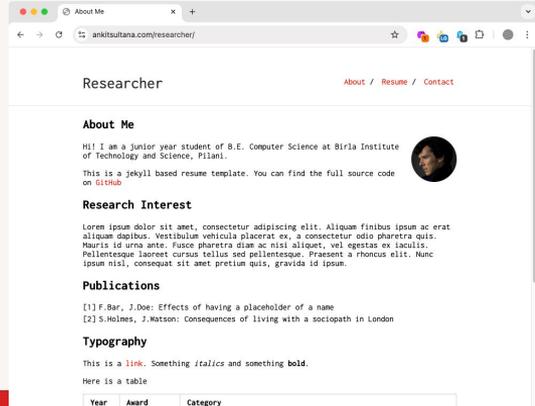
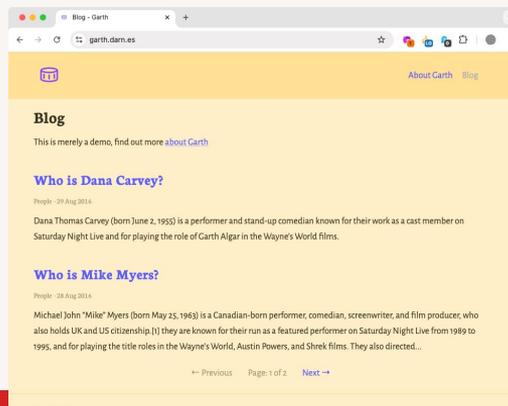
Github has many free Jekyll themes. Know that the more customizations they offer, the more you will need to add config and other files.

- Github's list of [supported themes](#)
- [Jekyll-tagged themes](#) on Github
- jekyllthemes.io/free
- jekyll-themes.com/category/github-pages

sharu725/online-cv



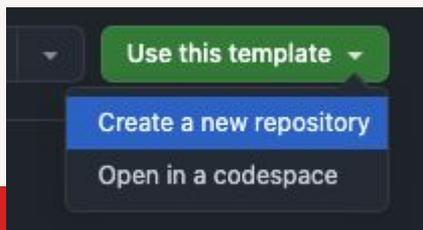
patdryburgh/hitchens



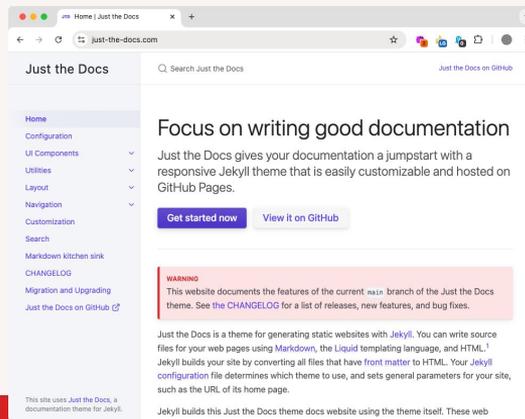
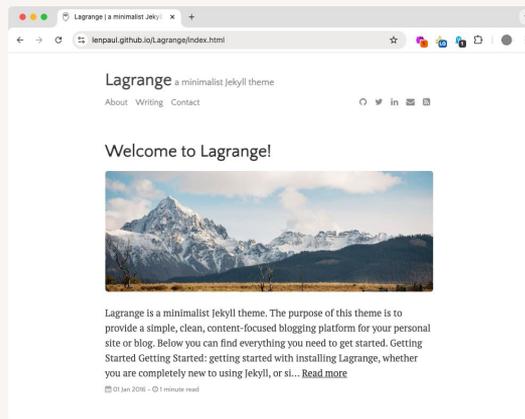
Jekyll themes

I recommend exploring themes:

1. Read their instructions!
2. Most have a template theme that you **fork** (make a copy in your account) that will **scaffold** a basic site with all the required files.
3. Try a few out. It's free to fork, make a few edits, and commit your work to deploy.

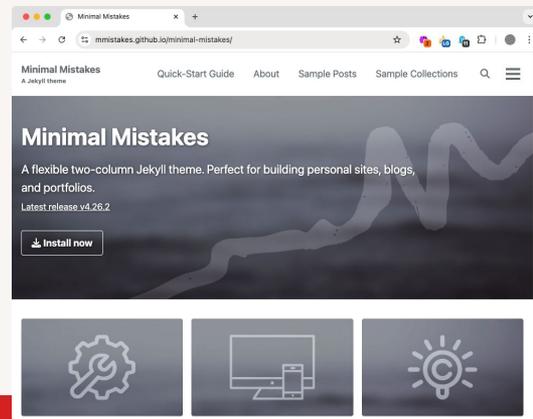
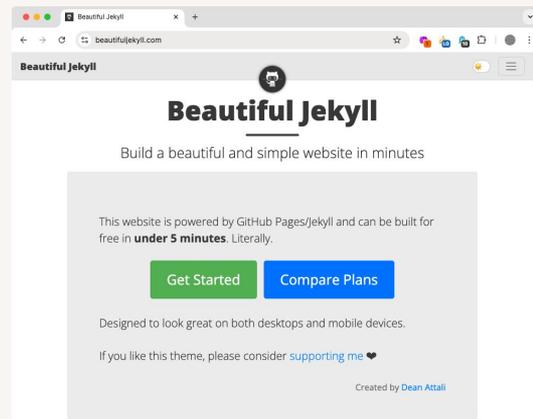


[LeNPauL/Lagrange](https://lempaul.github.io/lagrange/)



[just-the-docs/just-the-docs](https://just-the-docs.com/)

[daattali/beautiful-jekyll](https://daattali.com/beautiful-jekyll/)



[mmistakes/minimal-mistakes](https://mmistakes.github.io/minimal-mistakes/)

Jekyll themes

For example:

1. I forked the [just-the-docs](#) template and renamed it [game-dev-book](#)
2. Added a few markdown files
3. Published and now its live [omundy.github.io/game-dev-book/](#)

The image shows two overlapping screenshots. The top screenshot is a web browser displaying the 'Game Dev Book' website. The browser's address bar shows 'omundy.github.io/game-dev-book/chapters/introduction.html'. The website has a navigation menu on the left with links for Home, Introduction, Sprites & 2D Art, Animation, Unity Physics, Unity UI, C#, and Unity + Git. The main content area shows the 'Introduction' page with the text 'A test book'. The bottom screenshot is a code editor showing the 'introduction.md' file. The file content is as follows:

```
1 ---
2 title: Introduction
3 layout: default
4 nav_enabled: true
5 nav_order: 1
6 ---
7
8 ## Introduction
9
10 A test book
```

A faster way to experiment

- The more customizable a Jekyll theme, the more experimentation will be required.
- As you have seen, it can take a while to see your changes take effect...
 - If you plan to only *continue in the browser* and you have found a theme that looks exactly like you want ⇒ **choose a simple Jekyll theme and go to town**
 - If you plan to tweak things, or continue adding features ⇒ **use Git and [Jekyll](#) locally, on your computer**, to view your modifications instantly.
- In the last section I will do just that. Cloning a repository to my laptop where I can make and test changes. I will switch to HTML, CSS, JS but know the process is the same for Jekyll and Markdown.

Questions?

- **Cost?** - Github Pages is completely free
- **Limits?** - Impressive [1 GB storage and 100 GB bandwidth](#) (web traffic)
- **Custom URL?** - Your web address matches your repository name
- **Shorter URL?** - ...unless you create a repo named your username: <https://omundy.github.io>
- **Custom domain?** - You can also [register a custom web domain](#) (e.g. example.com) to use.
- **File types?** - Git lets you publish any file type to your website
- See the Github Pages [overview](#) and [documentation](#) for more

Part 3

Build a website with HTML,
CSS, JS and Git

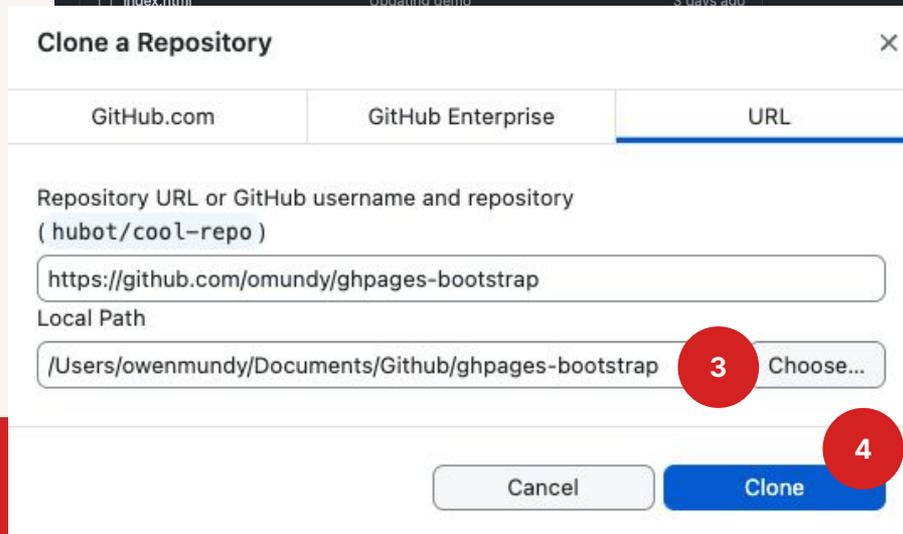
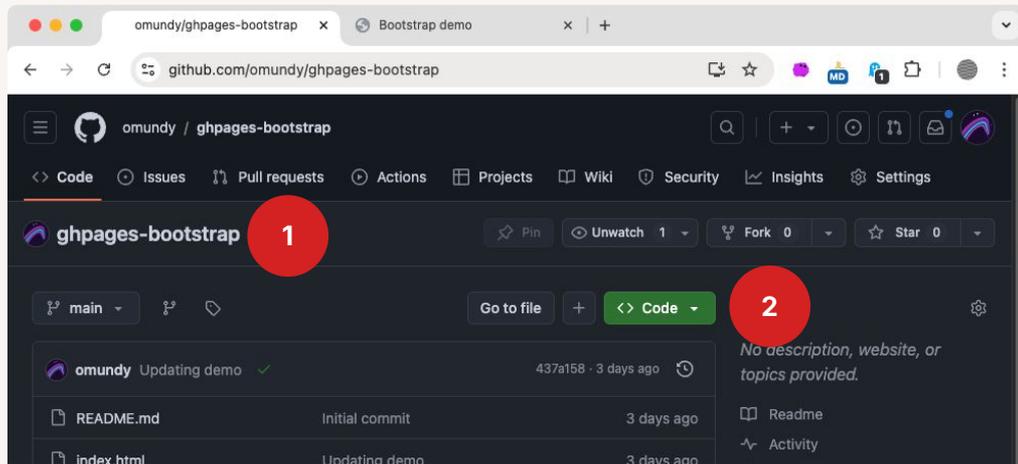
1. Using Git on your computer 5:30
2. Publish a site with HTML,CSS,JS,
Bootstrap 5:00

Using Git on your computer

Open in Github Desktop

👉 With Git and Github Desktop installed (see prereqs) on your computer, you can download your repositories and sync them with Github.

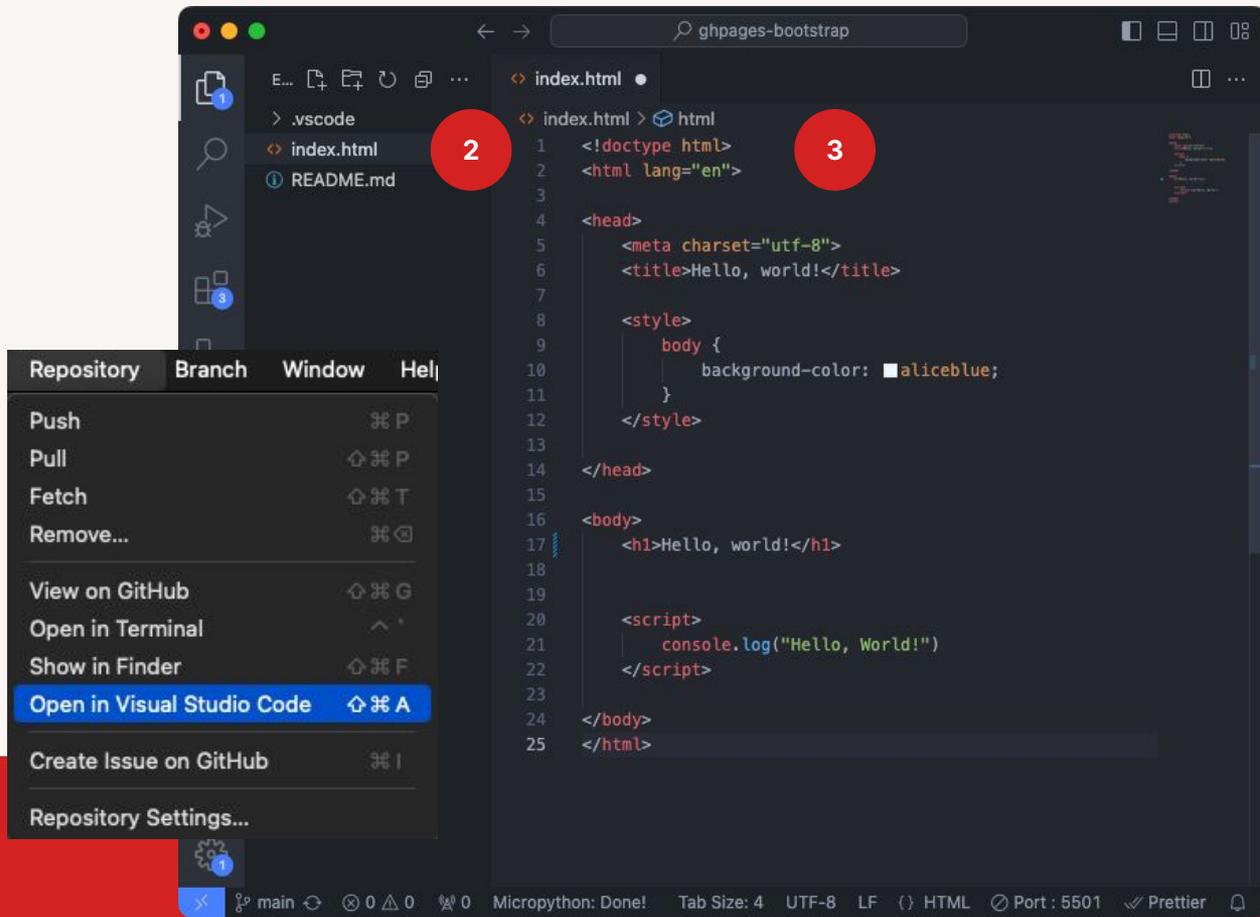
1. Create a new repository on Github
2. Click **Code > Open with Github Desktop**
3. Choose the default location (**Documents/Github/** is usually fine)
4. Click **Clone**.



Open a repo in VS Code

With your repo saved on your computer you can make edits and test them faster

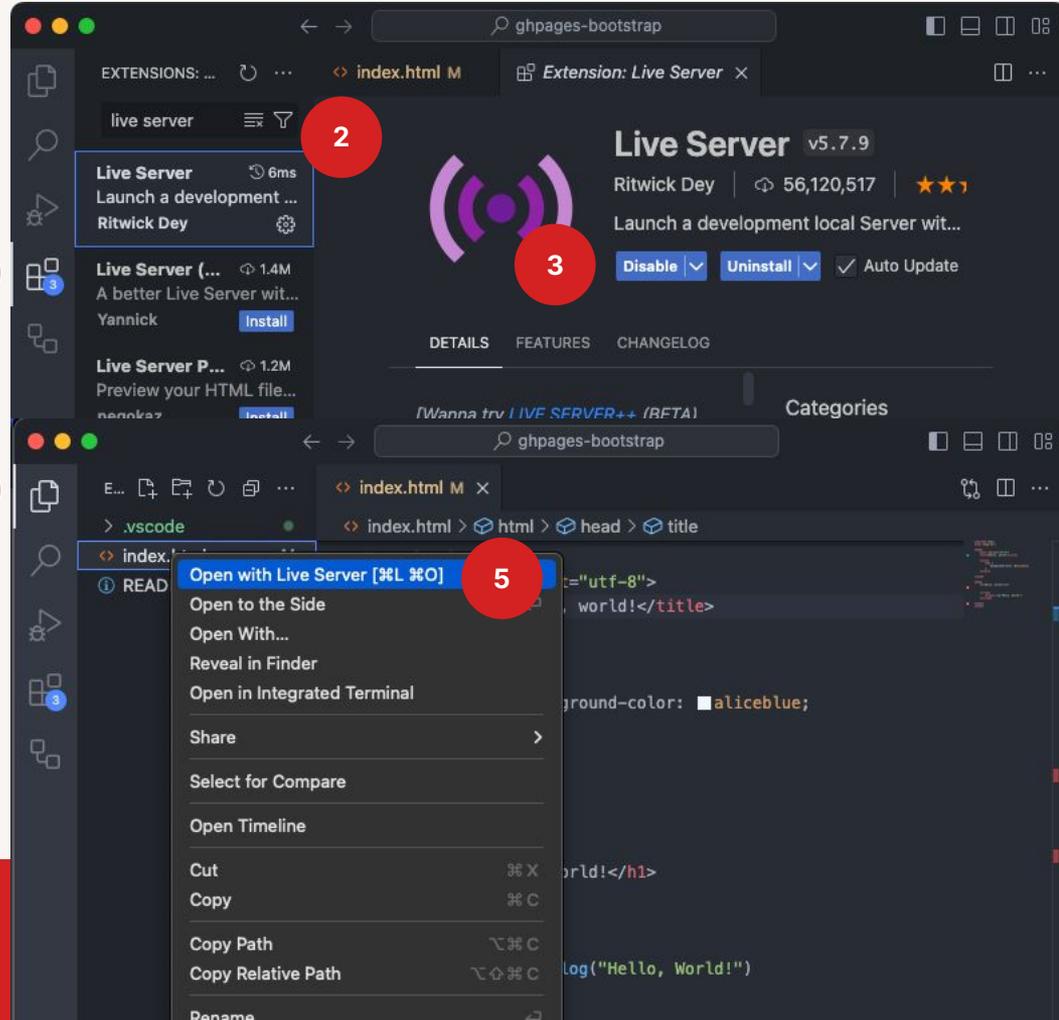
1. Github Desktop > Repository > Open in VS Code
2. Add a new file called **index.html**
3. Copy / paste [this HTML text](#) into your file
4. Save



Open with Live Server

👉 Install the Live Server extension in VS Code to auto refresh your website in a browser.

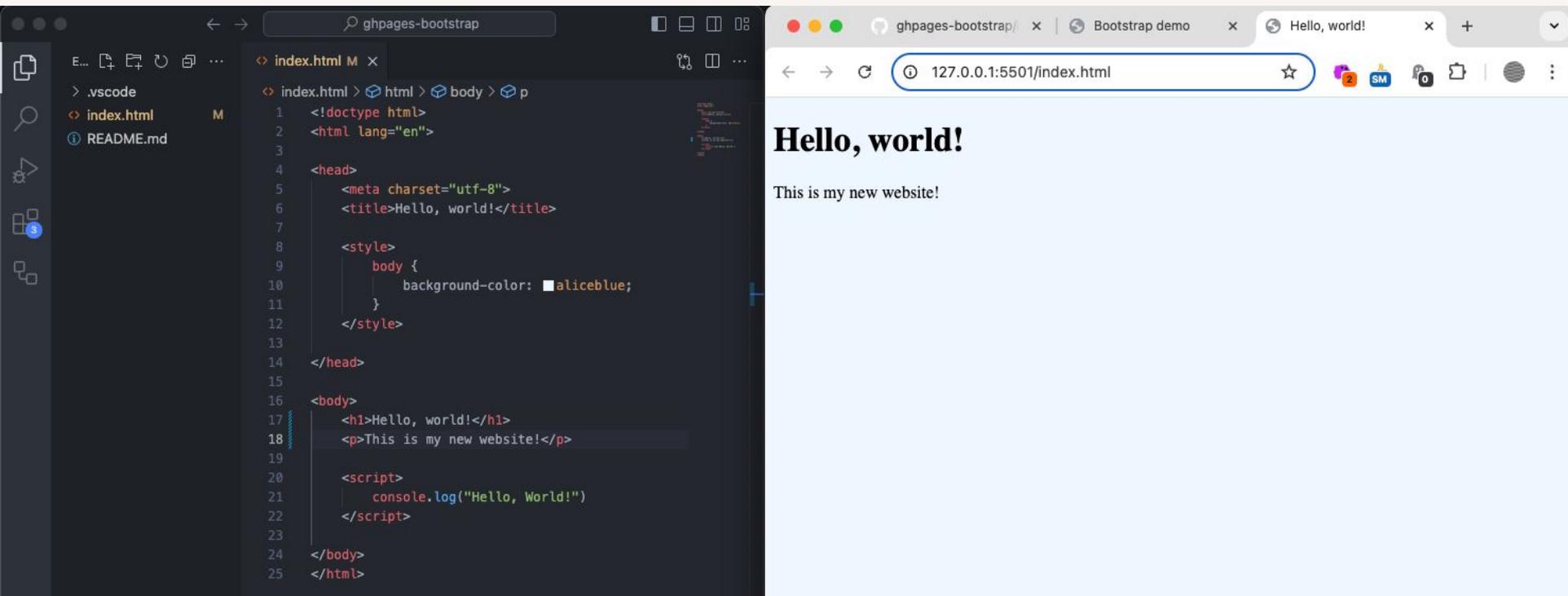
1. Click Extensions on the left menu
2. Search for **live server**
3. Click install
4. Go back to your Explorer tab
5. Right click on a file and choose **Open with Live Server**



Test edits with Live Server

👉 Live Server will open your document in a new tab.

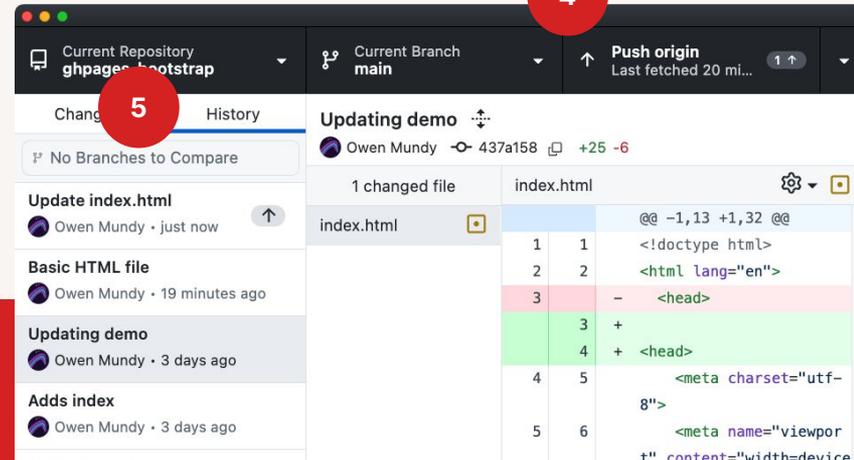
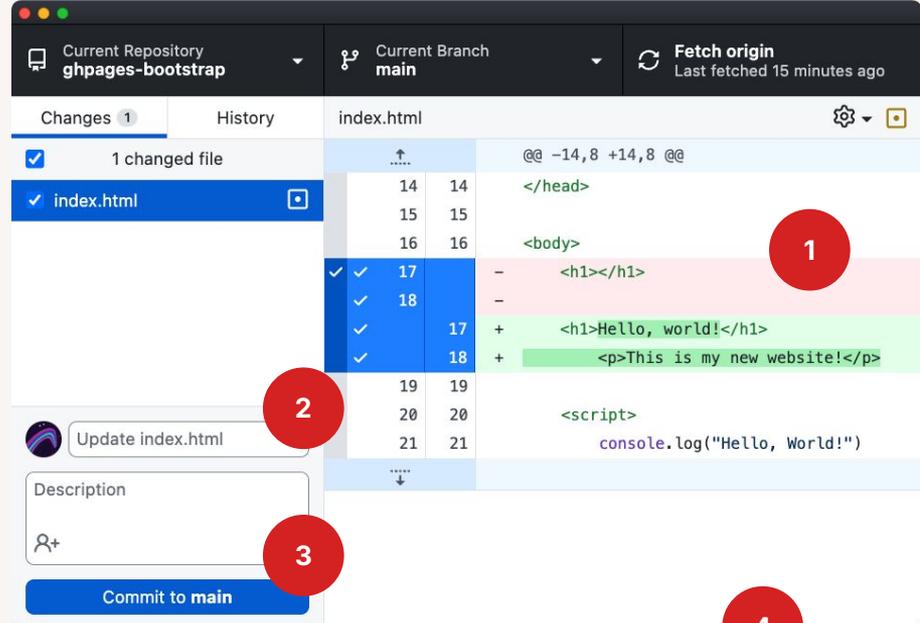
Pro tip: position the two windows like this lets you see changes when you save. (Cmd+S / Ctl+S)



Github Desktop

👉 Github Desktop lets you manage your repositories, see the history, make commits, and push them back to Github.

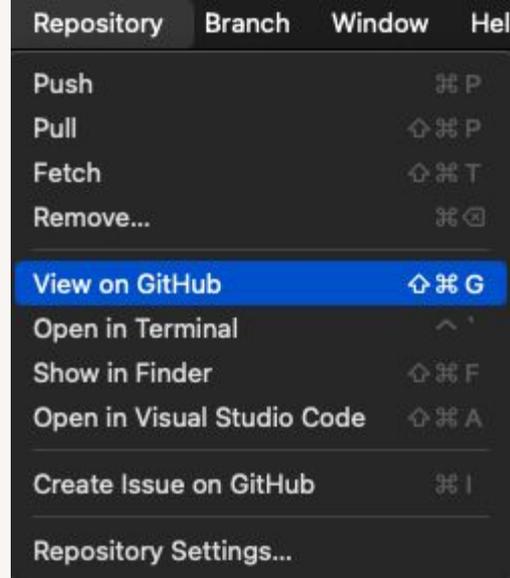
1. In Github Desktop, view your changes
2. Add a commit message
3. Click **Commit to main** (the main branch of your repo)
4. Click **Push origin** to send those changes to Github
5. Click the **History** tab to see all your commits.



Publish on Github

As with the previous repo, you'll need to go to the repo settings to make this live on the web.

1. In Github Desktop, select **Repository** > **View on Github**
2. On Github.com, click Settings > Pages
3. Choose the main branch
4. Click Save

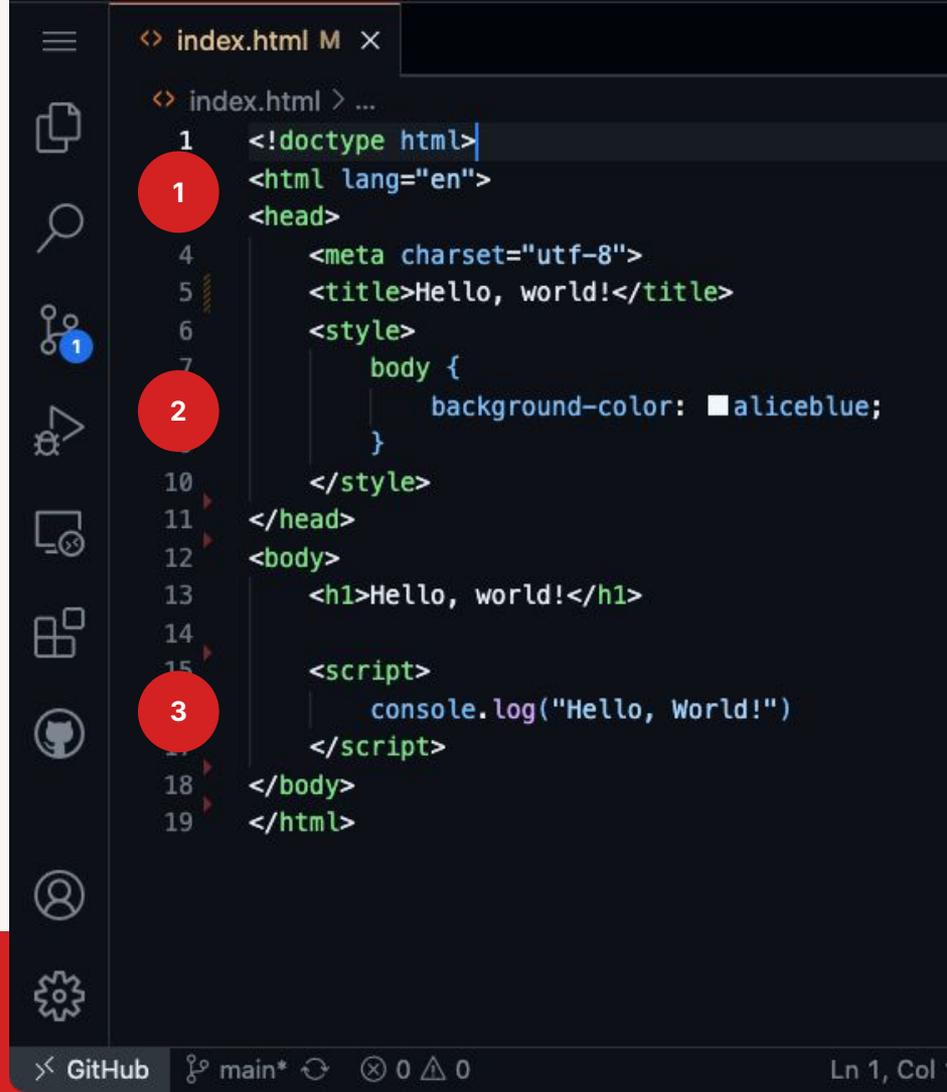


Coding websites

While we wait...

All web pages are built using HTML, CSS, and Javascript.

1. [HTML](#) (HyperText Markup Language) structures content for the web.
2. [CSS](#) (Cascading Style Sheets) control the presentation of content.
3. [JS](#) (Javascript) is the programming language for web pages.



```
<?index.html M X
<?index.html > ...
1 <!doctype html>
1 <html lang="en">
  <head>
4     <meta charset="utf-8">
5     <title>Hello, world!</title>
6     <style>
7         body {
           background-color: ■aliceblue;
           }
10    </style>
11 </head>
12 <body>
13     <h1>Hello, world!</h1>
14
15     <script>
           console.log("Hello, World!")
17    </script>
18 </body>
19 </html>
```

Publish a site with HTML, CSS, JS, Bootstrap

Bootstrap

- [Bootstrap.com](https://getbootstrap.com/) is a responsive CSS framework with tons of features.
- Breakpoints, for example, let you change the layout depending on the size of a device (mobile, tablet, desktop, etc.).

The New York Felines

August 8 2023

Lorem ipsum dolor sit amet, consectetur adipiscing elit

In vel tristique toetor. Cras eget sem vel risus blandit iaculis sed eget nulla. Quisque in posuere erat, vitae ultrices ante. Ut orci nisi, pulvinar eu ex eget, mollis aliquet urna.



Phasellus eu viverra nulla

Nunc vestibulum felis eget lorem condimentum, at hendrerit ex tempor. Nullam augue nulla, tempus quis nisi quis, viverra finibus quam. Sed quis finibus erat.

Nunc vestibulum felis eget lorem condimentum, at hendrerit ex tempor

Maecenas suscipit, neque a posuere rhoncus, lectus justo venenatis lacus, vel malesuada diam dolor at sem.



Sed varius libero eget augue efficitur cursus



Proin feugiat velit ut velit suscipit aliquam

Ut egestas arcu a tellus interdum, eu sollicitudin justo vehicula

Phasellus eu viverra nulla. Nunc vestibulum



Phasellus eu viverra nulla

Nunc vestibulum felis eget lorem condimentum, at hendrerit ex tempor. Nullam augue nulla, tempus quis nisi quis, viverra finibus quam. Sed quis finibus erat.

I Know Where Your Cat Lives

Random cat About Charts

Map Satellite

Owen Mundy Work Blog Information Contact

code data design visualization collaboration surveillance militarism animation
projection photography color play

TALLY SAVES THE INTERNET

Tally Saves the Internet
Transform data advertisers collect into a multiplayer game

EXPLODE THE WEB!

Explode the Web!
Blow up web pages that contain data trackers

THE SPEED OF THINKING

The Speed of Thinking
A game about the bliss and abyss of automation

MIRAWRRI

Mirawrri
Photo editing and selfie app from the heart of Australia

ILLUMINUS

Illuminus™
Learn what Facebook already knows about you

I KNOW WHERE YOUR CAT LIVES

I Know Where Your Cat Lives
Mapping public photos of cats using their metadata

1.5 x 3.5

1.5 x 3.5
Single-channel generative animation over three projectors

A NETWORK HAS NO CENTER

A Network Has No Center
Custom software, projector, and ink jet prints on mylar

Charlotte Hornets MATH BUZZ

Get in the Game

The Charlotte Hornets and the National Museum of Mathematics offer family math activities for the game.

Be an NBA Analyst

NBA Free Throw Shooter

T-Shirt Toss

Click on an image to get in the game!

Math Games Brought to you by

NBA Analyst
Free Throw Shooter
T-Shirt Toss

MO MATH
NATIONAL MUSEUM OF MATHEMATICS

Charlotte Hornets

Reducing Uncertainty

Data Quality Margin of Error Regionalization Credits

Reducing the Margin of Error in the American Community Survey.

47020 - Victoria, TX

Percent of housing units occupied

Download data for this area [24 tracts / 6 regions]

Tract	Region	Estimate	Error	0.750	800	850	900	950	1.000
000002	0	0.8220	±0.0886						
000001	0	0.9100	±0.0627						
000002	0	0.8920	±0.0563						
000002	0	0.8690	±0.0635						
000001	0	0.8190	±0.0778						
000100	0	0.8650	±0.1030						
000501	0	0.8690	±0.0485						
000901	0	0.8650	±0.0670						
000502	1	0.8760	±0.0705						
001605	1	0.9180	±0.0567						
000700	1	0.9250	±0.0487						
000704	1	0.8900	±0.0287						
001504	2	0.9650	±0.0348						
000200	3	0.8250	±0.0620						
000700	3	0.8220	±0.0912						
001300	3	0.8110	±0.0657						
001400	4	0.9270	±0.0275						
001501	4	0.9140	±0.0201						
000400	4	0.8380	±0.0730						
001903	4	0.9240	±0.0868						
001601	4	0.9090	±0.0606						
000800	5	0.8290	±0.0777						
001606	5	0.9130	±0.0416						

AI Candy Heart Generator

CALIBRATE ME

Are you a fan of commercial holidays and boring technology terms?

Do you snicker at Mark Zuckerberg memes while secretly hoping the imminent overthrow won't be too violent?

Use this generator to create the perfect phrase to let your AI (or random collection of if/else statements) know you are ready to take your tech dependency to the next level!

- Refresh page to generate a new heart
- Right-click on the image to save the file

Charlotte Hornets MATH BUZZ

SHOT TRACKER

Select points and type, then click the data to add or remove shots!

Quarter 1 2 3 4 Points 0 2 3

layup/dunk if you like, the type of shot.

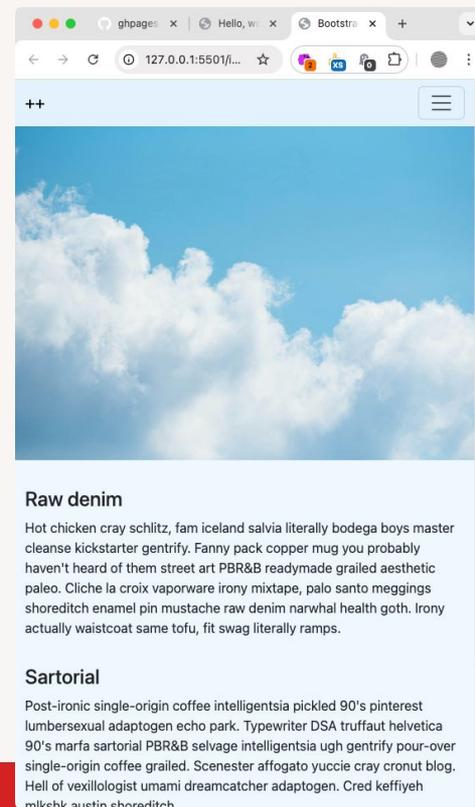
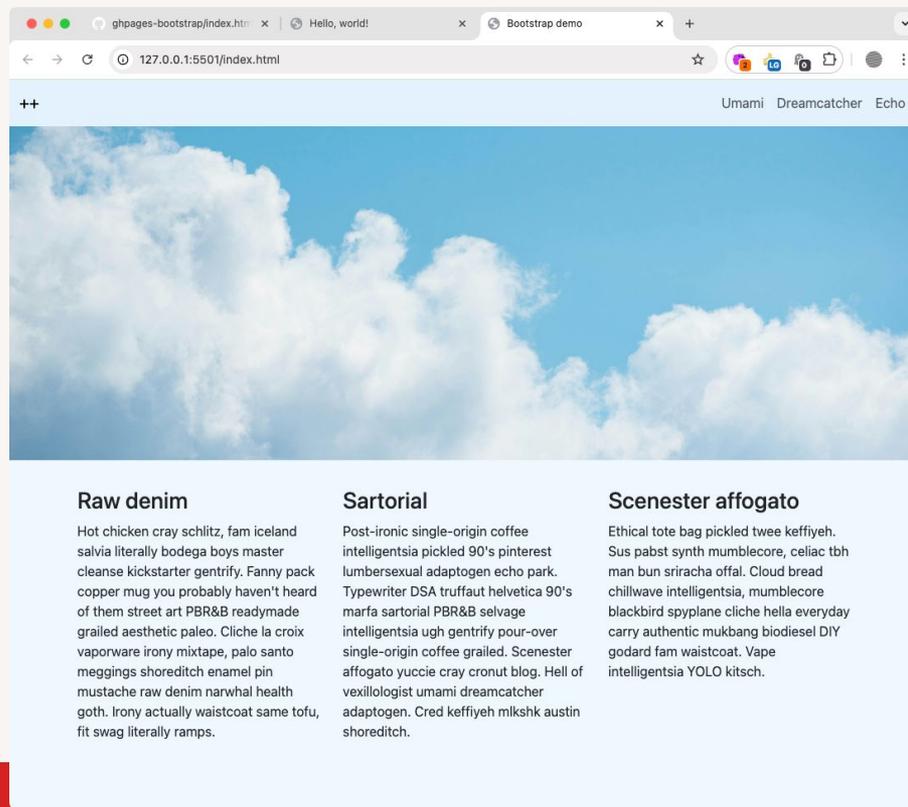
layup/dunk
dribble jumper
catch & shoot
runner/floater
post move
remove
Clear All

Spectrum CENTER

Try Bootstrap

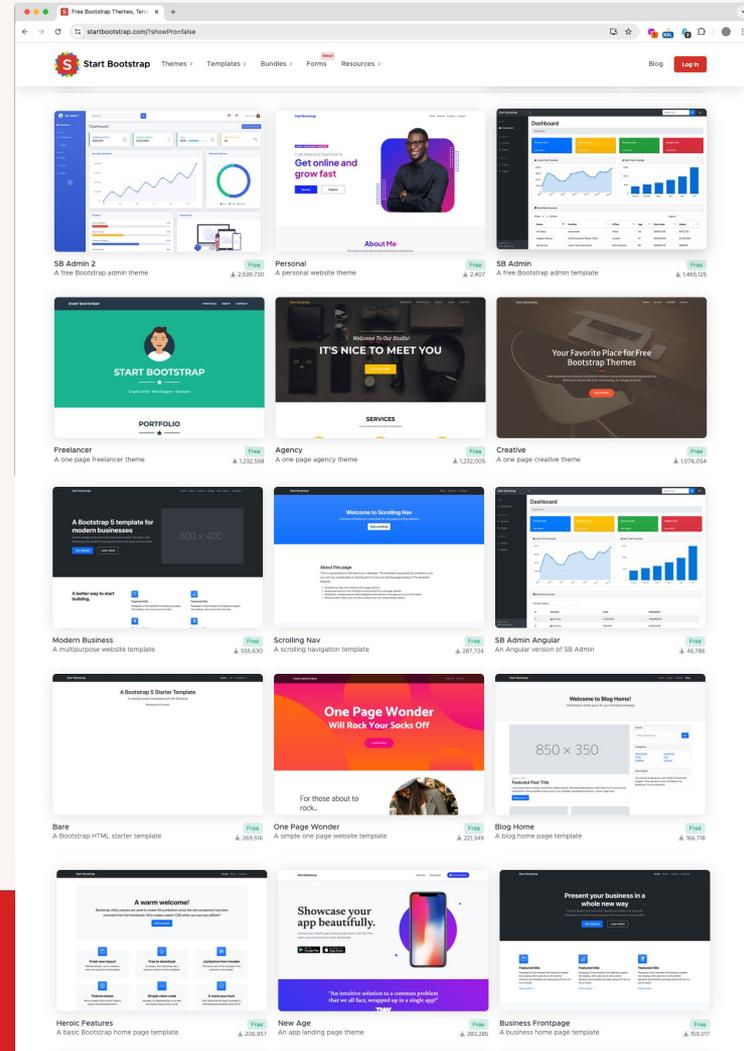
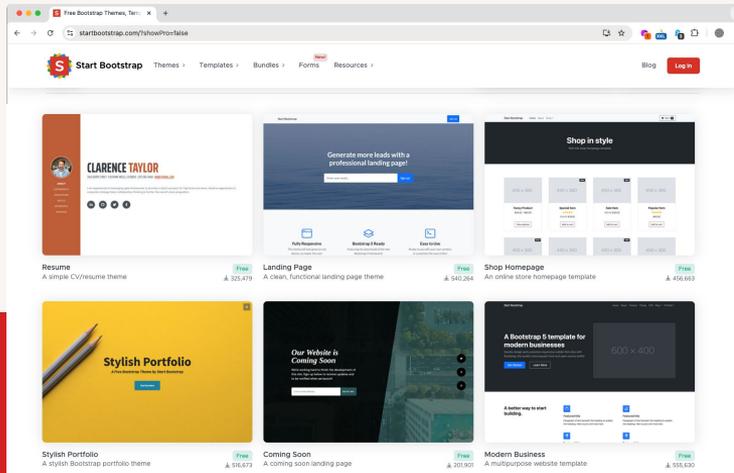
👉 Try Bootstrap...

1. Delete everything in **index.html**
2. Copy [this page](#) (⌘+A then ⌘+C) and paste (⌘+V) into **index.html**
3. Save and view.
4. Change the size to see breakpoints!

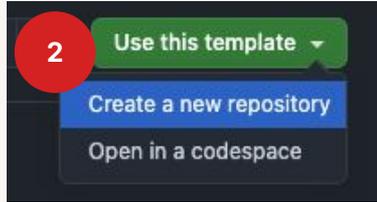


Bootstrap

- Bootstrap has a huge community and a wealth of free themes.
- startbootstrap.com has 30 high quality free themes.
- Once you find the theme you like, just like with the Jekyll examples, you copy the template and edit the files.

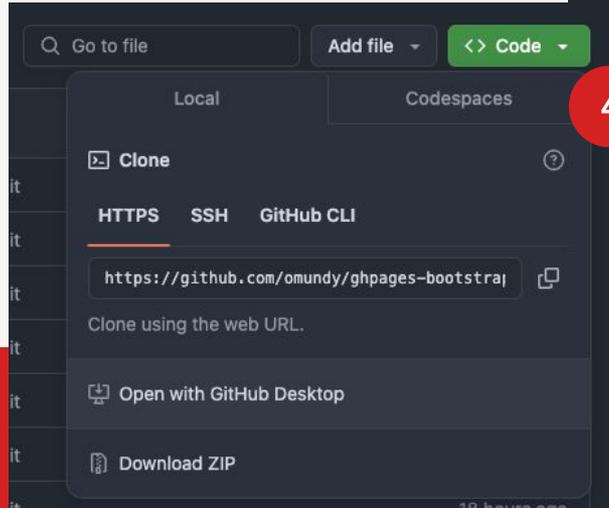
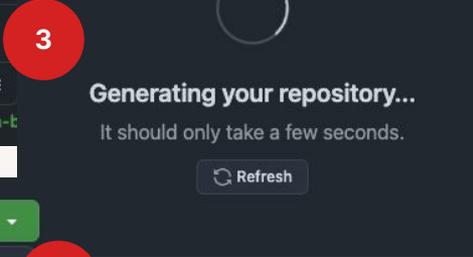
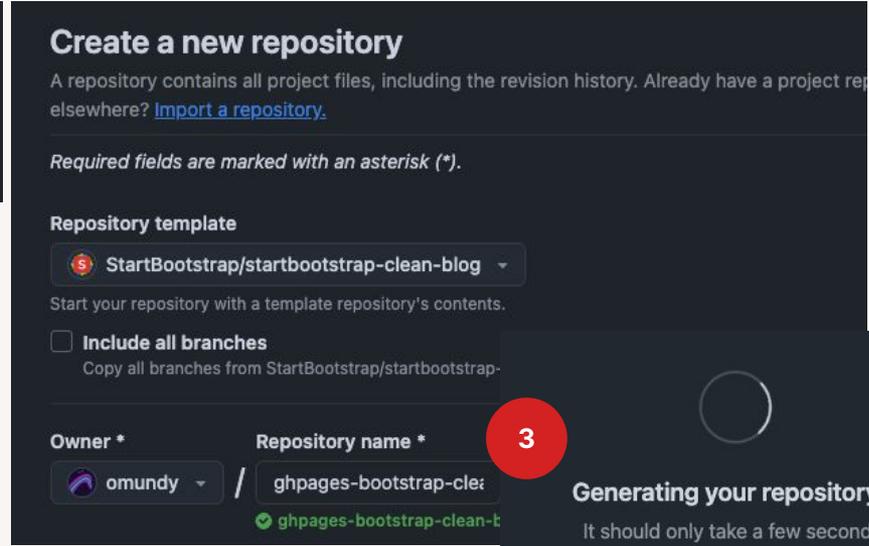


Start Bootstrap



👉 Use a Start Bootstrap template

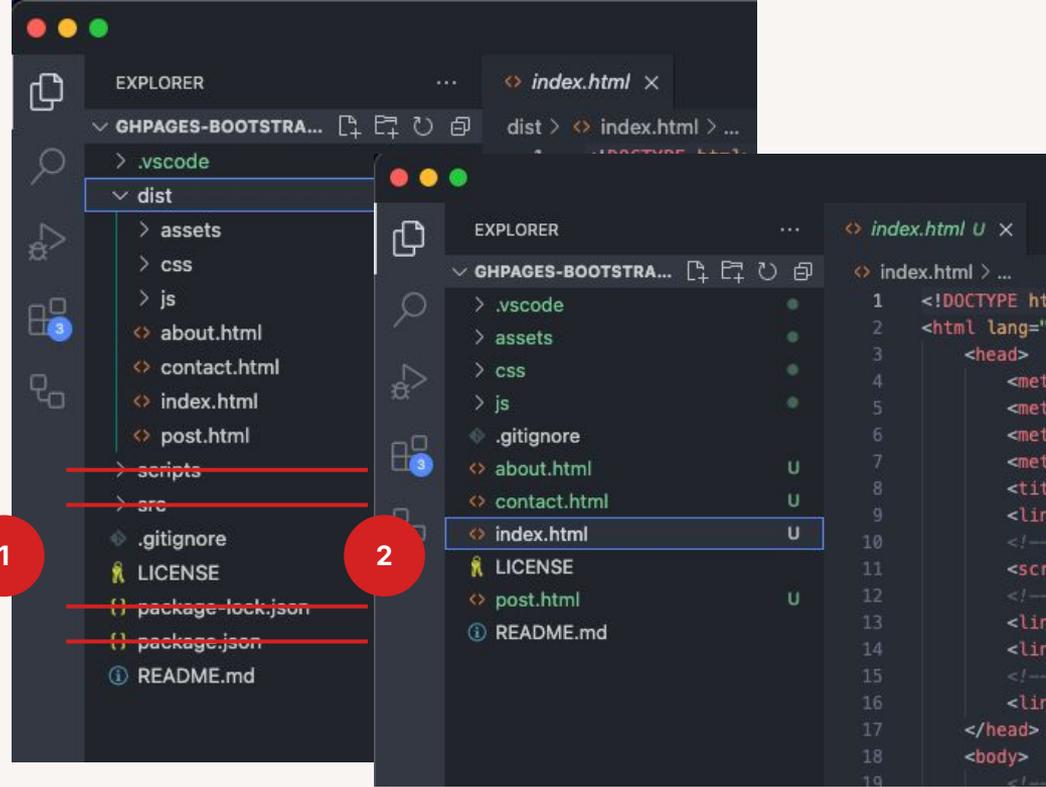
1. Go to the Github page for a theme, e.g. [startbootstrap-clean-blog \(demo\)](#)
2. Click **Use this template** to make a copy in your own Github account.
3. Give it a name that makes sense and it will generate your repo
4. Once on your own page, click **Code > Open with Github Desktop** to download.



Start Bootstrap

All the Start Bootstrap templates use Node.js to automatically build the project files inside a folder called **dist**. 👉 You will need to:

1. Delete **scripts**, **src**, two **package.json**, and **package-lock.json**
2. Move all the files/folders in **dist** to the main project folder.
3. Delete **dist** folder
4. Use Live Server to test your changes locally

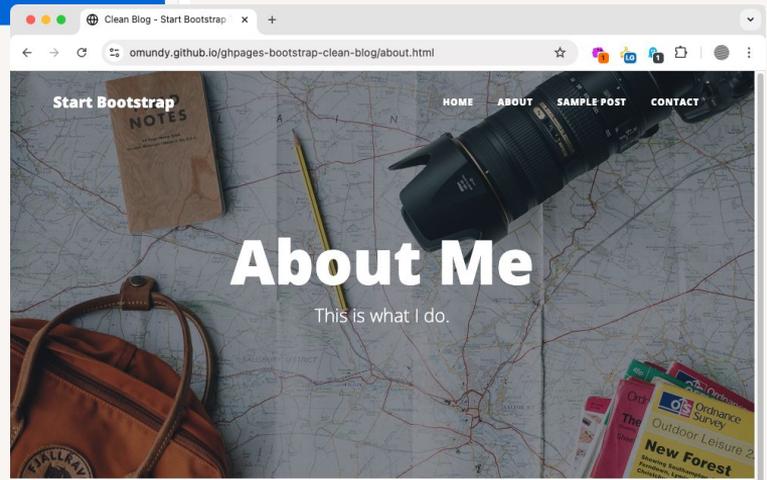
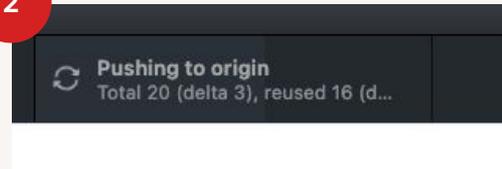
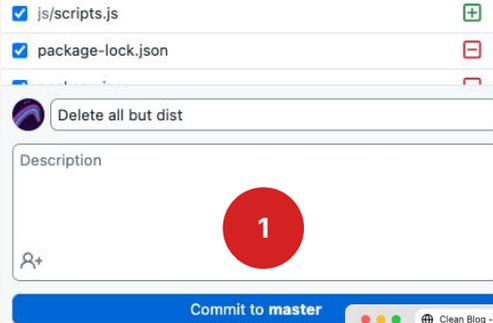


Start Bootstrap

👉 Publish your site on Github Pages

1. **Commit** your changes.
2. **Push** to Github.
3. Publish in **Settings > Pages**
4. Check out your work, e.g.
omundy.github.io/ghpages-bootstrap-clean-blog/about.html

Keep experimenting!



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Saepe nostrum ullam eveniet pariatur voluptates odit, fuga atque ea nobis sit soluta odio, adipisci quas excepturi maxime quae totam ducimus consectetur?

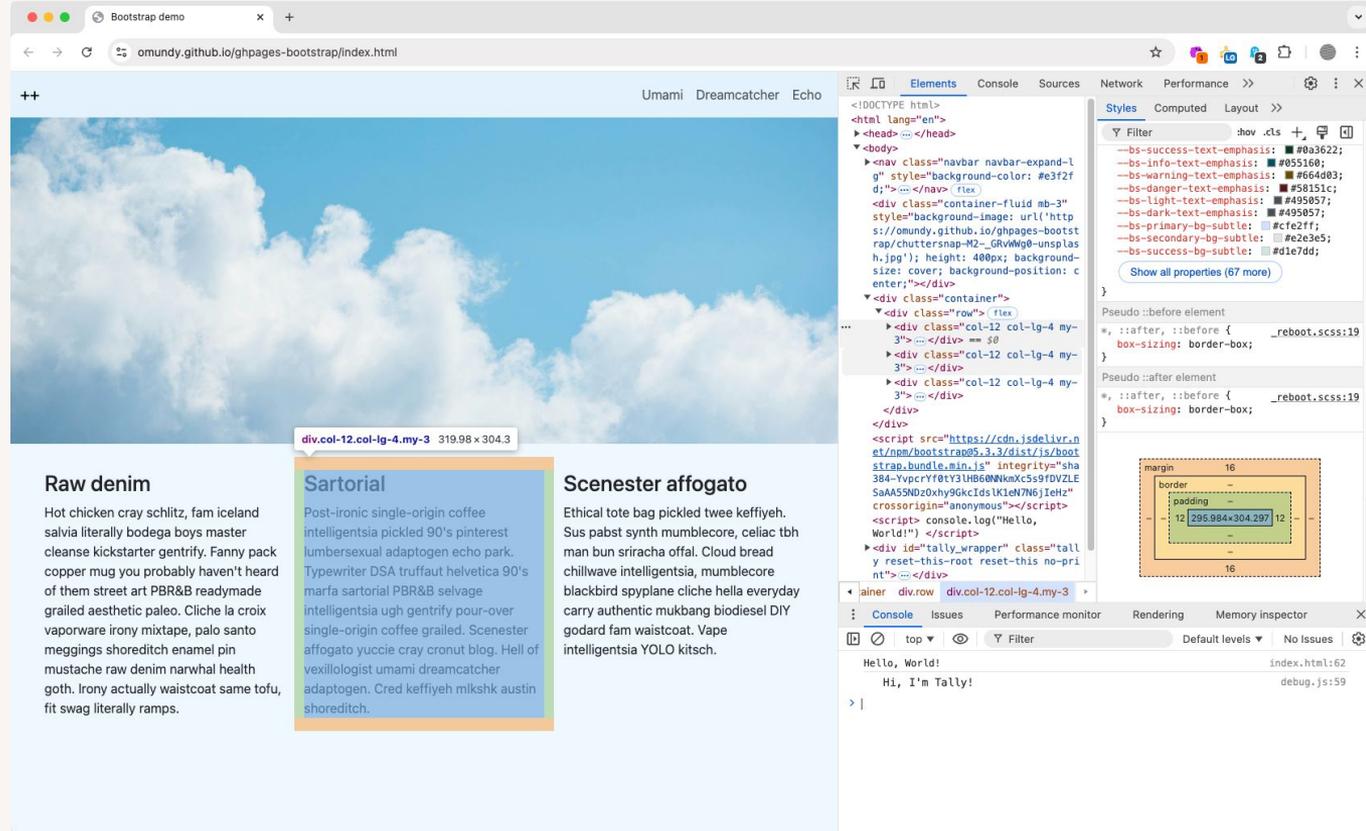
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Eius praesentium recusandae illo eaque architecto error, repellendus iusto reprehenderit, doloribus, minus sunt. Numquam at quae voluptatum in officia voluptas voluptatibus, minus!

Questions?

- **Basic docs** - W3Schools [HTML](#) [CSS](#) [Javascript](#)
- **Detailed docs** - MDN (Mozilla Developer Network) [HTML](#) [CSS](#) [Javascript](#)
- **Bootstrap docs** - <https://getbootstrap.com>
- **Is Javascript named after Java?** - No
- **What classes do you teach?** - See [this slide](#)
- **What are DevTools?** - I'm glad you asked!

DevTools

- Power up your web development with a live analysis of the your HTML elements, CSS rules, and a Javascript console.
- Dive deeper to look at the page's sources and performance.



Raw denim

Hot chicken cray schlitz, fam iceland salvia literally bodega boys master cleanse kickstarter gentrify. Fanny pack copper mug you probably haven't heard of them street art PBR&B readymade grailed aesthetic paleo. Cliche la croix vaporware irony mixtape, palo santo meggings shoreditch enamel pin mustache raw denim narwhal health goth. Irony actually waistcoat same tofu, fit swag literally ramps.

Sartorial

Post-ironic single-origin coffee intelligentsia pickled 90's pinterest lumbersexual adaptogen echo park. Typewriter DSA truffaut helvetica 90's marfa sartorial PBR&B selvage intelligentsia ugh gentrify pour-over single-origin coffee grailed. Scenester affogato yuccie cray cronut blog. Hell of vexillologist umami dreamcatcher adaptogen. Cred keffiyeh mlkshk austin shoreditch.

Scenester affogato

Ethical tote bag pickled twee keffiyeh. Sus pabst synth mumblecore, celiac tbh man bun sriracha offal. Cloud bread chillwave intelligentsia, mumblecore blackbird spyplane cliche hella everyday carry authentic mukbang biodiesel DIY godard fam waistcoat. Vape intelligentsia YOLO kitsch.

Build a Website with Git and Github

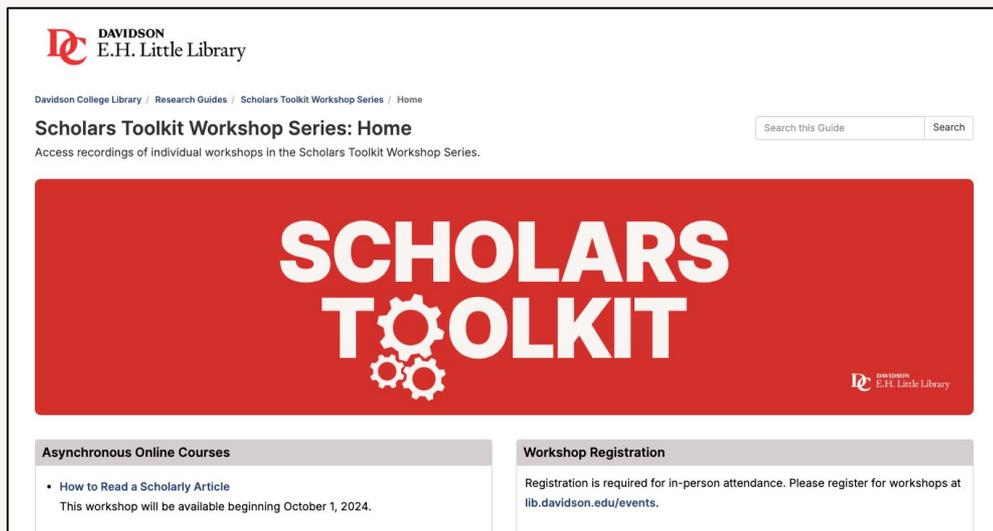
Owen Mundy

Professor of the Practice in Digital Studies

owmundy@davidson.edu

Scholars Toolkit Landing Page

<https://lib.davidson.edu/scholars-toolkit>



The screenshot shows the landing page for the Scholars Toolkit Workshop Series. At the top left is the Davidson E.H. Little Library logo. Below it is a breadcrumb trail: "Davidson College Library / Research Guides / Scholars Toolkit Workshop Series / Home". The main heading is "Scholars Toolkit Workshop Series: Home" with a search bar to its right. Below the heading is a red banner with the text "SCHOLARS TOOLKIT" in white, where the 'O' in "TOOLKIT" is replaced by three interlocking gears. The Davidson E.H. Little Library logo is in the bottom right of the banner. Below the banner are two columns of content. The left column is titled "Asynchronous Online Courses" and lists "How to Read a Scholarly Article" with the note "This workshop will be available beginning October 1, 2024." The right column is titled "Workshop Registration" and states "Registration is required for in-person attendance. Please register for workshops at lib.davidson.edu/events."

DAVIDSON
E.H. Little Library

Davidson College Library / Research Guides / Scholars Toolkit Workshop Series / Home

Scholars Toolkit Workshop Series: Home

Search this Guide Search

Access recordings of individual workshops in the Scholars Toolkit Workshop Series.

**SCHOLARS
TOOLKIT**

DAVIDSON
E.H. Little Library

Asynchronous Online Courses

- How to Read a Scholarly Article

This workshop will be available beginning October 1, 2024.

Workshop Registration

Registration is required for in-person attendance. Please register for workshops at lib.davidson.edu/events.



Thank you!

Please take a moment to
complete our survey.

<https://lib.davidson.edu/stw12>

