Cookies Cupcakes and Coding

GITHUB PAGES

ORGANIZED BY *VU WOMEN IN TECH*

Agenda

- Intro to Git & GitHub
- GitHub Pages
- Chirpy and Uno Templates
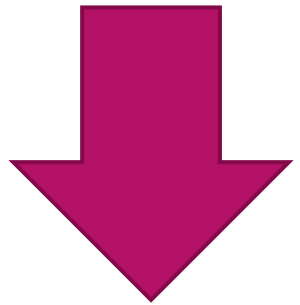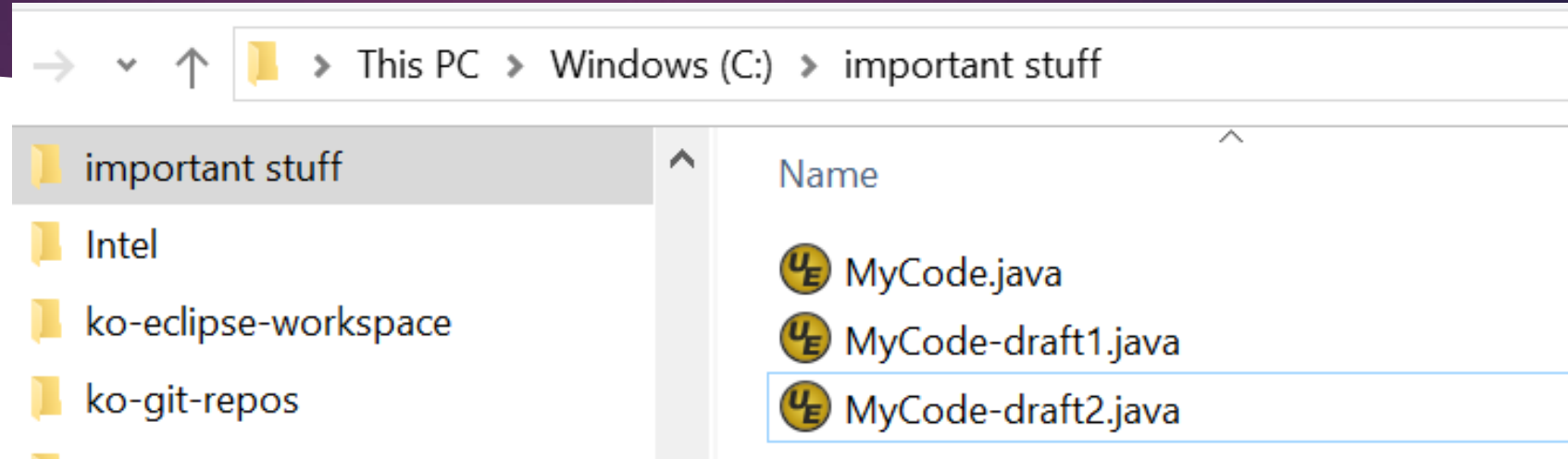
Old School Version Control

Portable polygraph owned by Thomas Jefferson, American Philosophical Society
https://www.amphilsoc.org/item-detail/portable-polygraph-owned-thomas-jefferson

DIY Version Control

Ersatz versioning on local computer

Backup to remote computer

Version Control

- System for keeping track of changes to a group of files over time

- History of changes is visible from initial to current version of each file

- No code is ever lost

- Facilitates collaboration

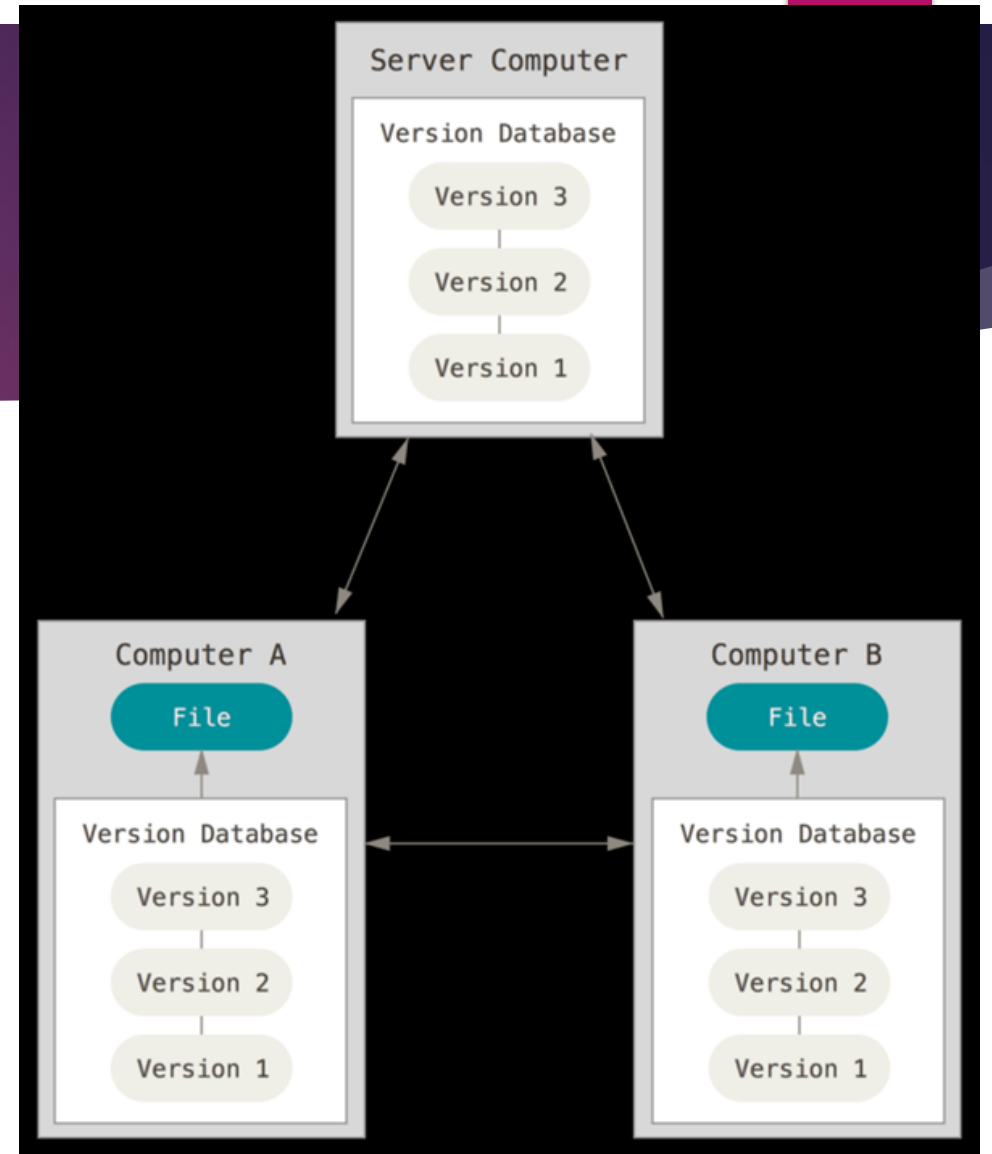- Time machine – can revert to earlier, working version if a change causes problems

DeLorean Dashboard, Back to the Future, Wikimedia Commons, author Frank Schwichtenberg
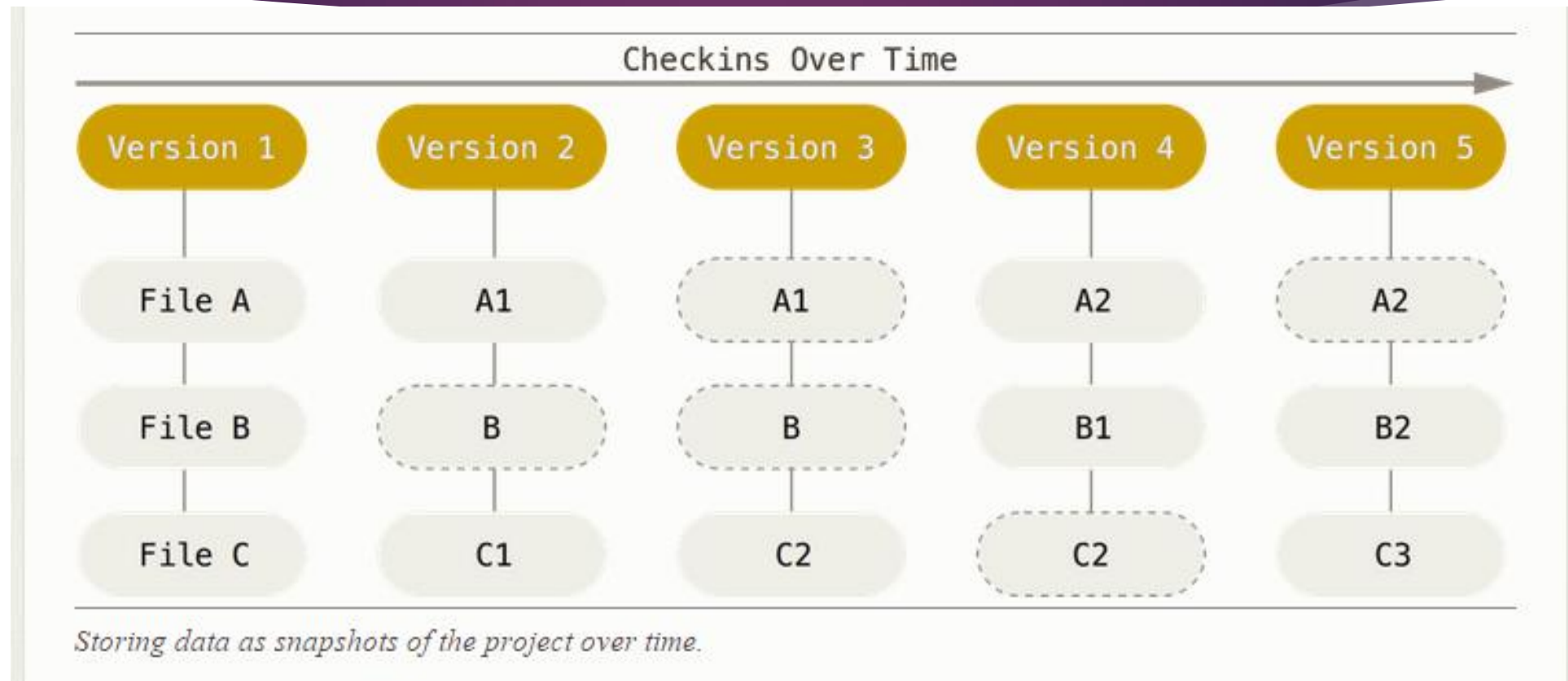https://commons.wikimedia.org/wiki/File:DeLorean_DMC-12_-_Back_to_the_Future_%E2%80%93_CeBIT_2016_15.jpg

- Git is a popular distributed version control system (DVCS)

- Git stores files in a *repository*

- Each local *clone* fully mirrors the remote (canonical) repository

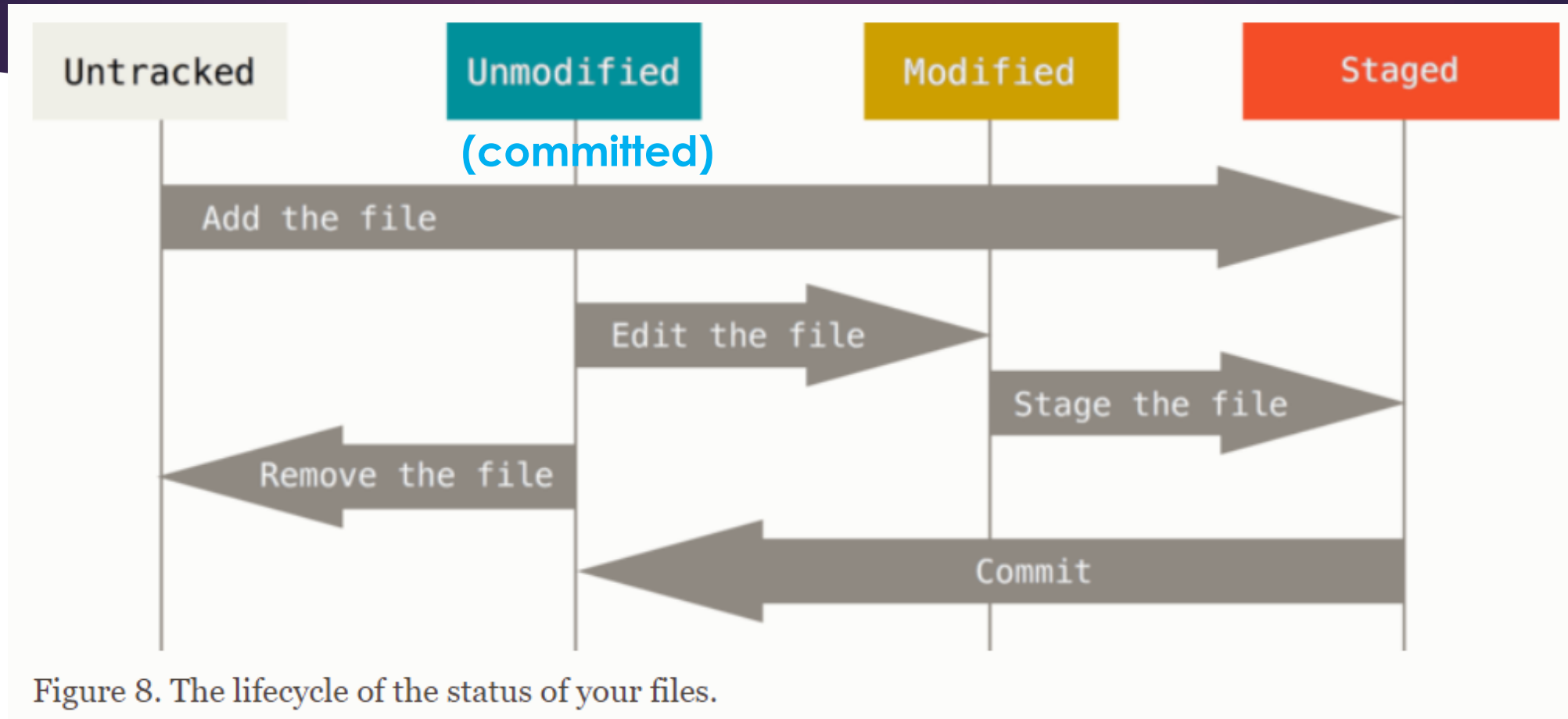- The local clone has *everything* – all history – so most operations are fast

ProGit by Chacon and Straub, Creative Commons
http://git-scm.com/book/en/v2/Getting-Started-About-Version-Control

Each Git *commit* forms a snapshot

Storing data as snapshots of the project over time.

Lifecycle of a file in Git

Figure 8. The lifecycle of the status of your files.

ProGit by Chacon and Straub, Creative Commons
http://git-scm.com/book/en/v2/Git-Basics-Recording-Changes-to-the-Repository

Some Git Commands

clone - get a copy of an existing repository

commit - record changes to the repository

add - begin tracking a new file, or stage a modified file

status - how current state of working tree

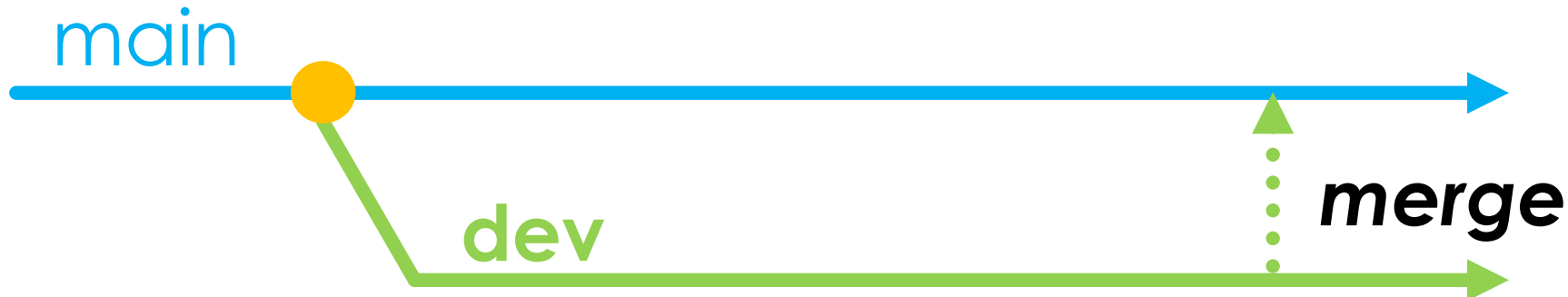**push** - update remote repository

pull – get updates from remote repo

branch – create a branch

checkout - switch to an existing branch

Branches

▶ Branches let us manage multiple lines of development, such as for different versions of software, new features and bug fixes

▶ When a new repository is created, it has a default branch named "main"

▶ New branches can be created from existing ones

▶ Git supports merging branches back together, too

Simple Git Workflow

- Clone repo locally
- (Optional) Create/checkout a branch to work on
  - main is the default branch
- Add or edit files
- Stage the files for commit
- Commit with message
- Push to remote repo

GitHub

- Popular code hosting provider
- Features include Git version control, issue tracking, code reviews, wiki and more
- Today we'll create a repository on GitHub and will use it to store the code for our web portfolio

GitHub Repository

- Cloud based repository to store files.
- Makes sharing and collaborating with team members simple.
- Includes all of git's version control features.

Get Ready for GitHub Pages

▶ Get a GitHub account if you don't already have one.

▶ Download and install GitHub Desktop - https://desktop.github.com/

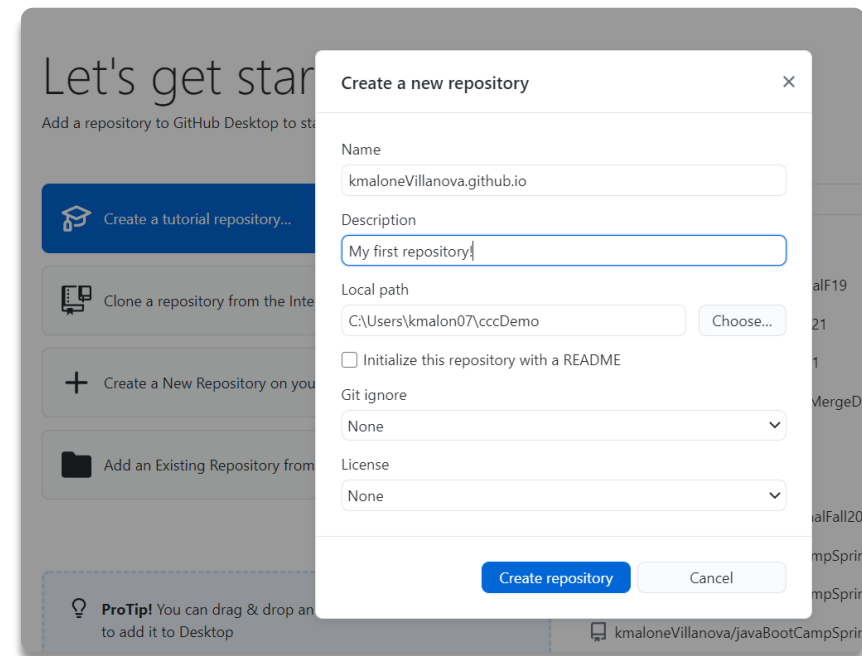▶ We're going to create a repository for an HTML page that will be hosted by GitHub Pages.

GitHub Pages

- GitHub's free web hosting service

- Turn any GitHub repository into a website

- Ties your repository to a personalized URL which includes your GitHub username eg. https://kmalone.github.io

Create a Repository for GitHub Pages

- Open GitHub Desktop
- Select Create a New Repository on your hard drive.
- Name the repository
- **<github-username>.github.io**
- Take note of the Local path location. This is where you'll store web files.
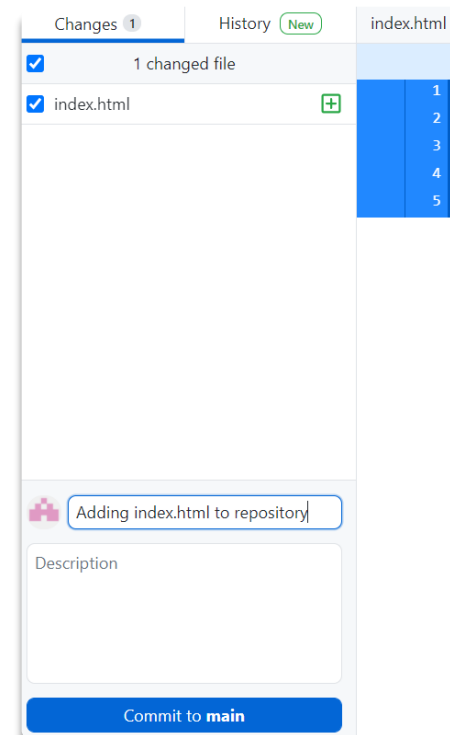
Add index.html to repository

- Open Notepad or any editor and create a simple html page.

- Name it index.html Github Page requires the home page be named index.html

- Save index.html in the Github repository local folder.

```
File  Edit  Format  View  Help
<html>
<body style="background-color:black;">
<h1 style="color:white;">Kathleen Malone's Website</h1>
</body>
</html>
```
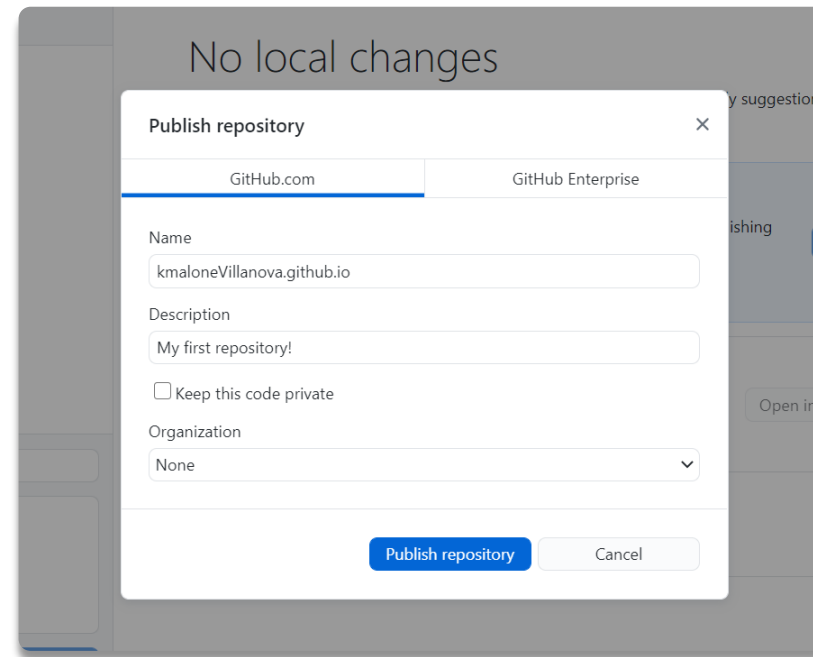
Commit changes to repository

▶ Commit index.html to the
 local repository.

▶ This tells git it is ready to be
 stored in the repository.

▶ Make sure to add a
 comment about the changes
 that were made.

Publish repository to Github

▶ Click Publish repository.

▶ Make sure "Keep this code private" IS NOT CHECKED!

▶ Otherwise, your code will not be published to the Internet.

View your website!

GO TO HTTPS://<USERNAME>.GITHUB.IO TO VIEW YOUR SITE!

Make changes to your website

- **If you make a change to your website, go to GitHub Desktop. In the main area of the Desktop, you'll see the files that have been changed.**

- **Write a comment about the changes you made and hit "Commit to main".**

- **Click "Push Origin" and changes will be pushed to GitHub.**

Already Have a Website?

▶ **Have GitHub host it in three simple steps:**

▶ 1. Create a repository <**github-username**>**.github.io** The repository name must be your username + github.io for it to be recognized by GitHub pages. Eg. kmalone.github.io

▶ 2 Add web content to the repository. The home page should be named index.html.

▶ 3. Commit files and push to GitHub.

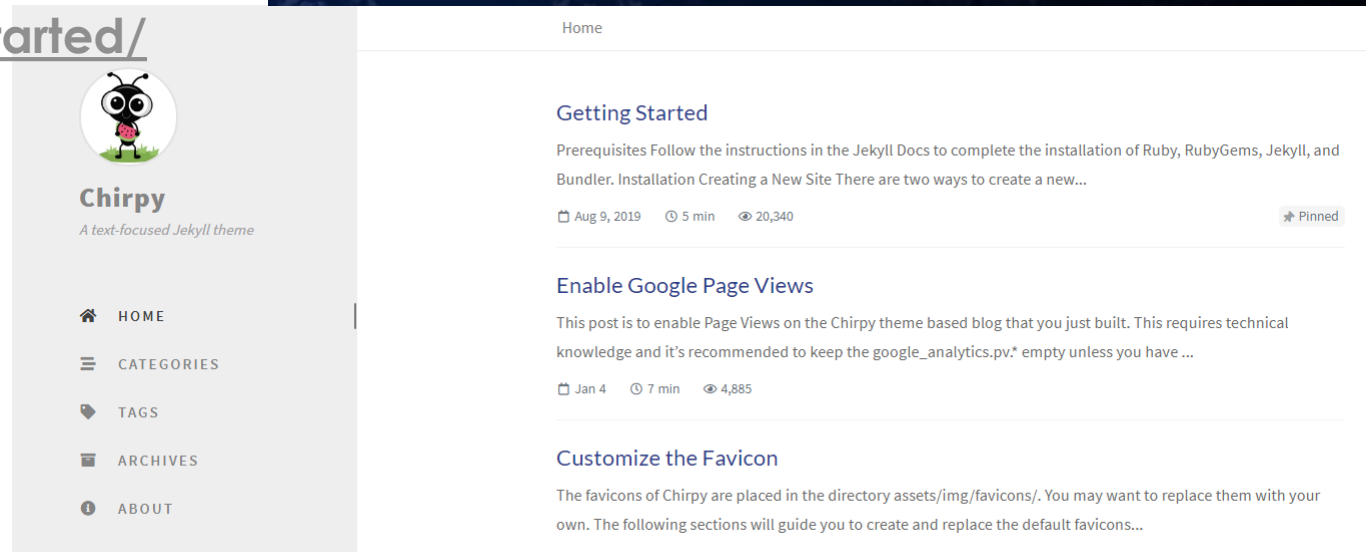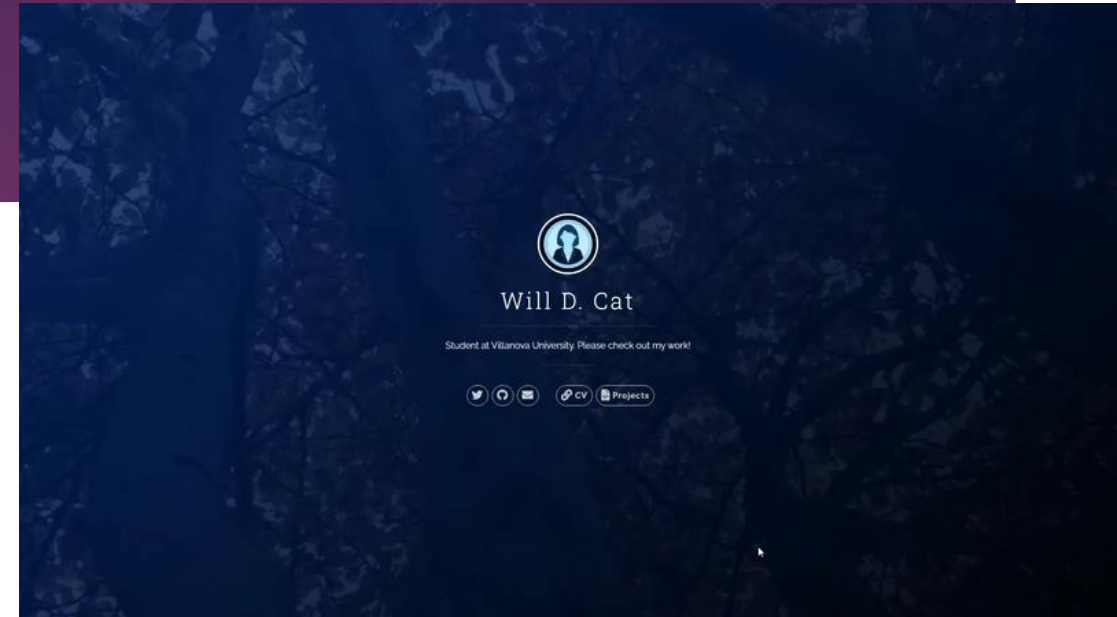▶ Go to <**github-username**>**.github.io** to view your site**.**

Need a Website?

▶ **Clone and edit a template:**

1. *Uno-timeline theme*: HTML+CSS

https://github.com/velthuis/uno-timeline-villanova

2. *Chirpy theme*: Jekyll+Markdown

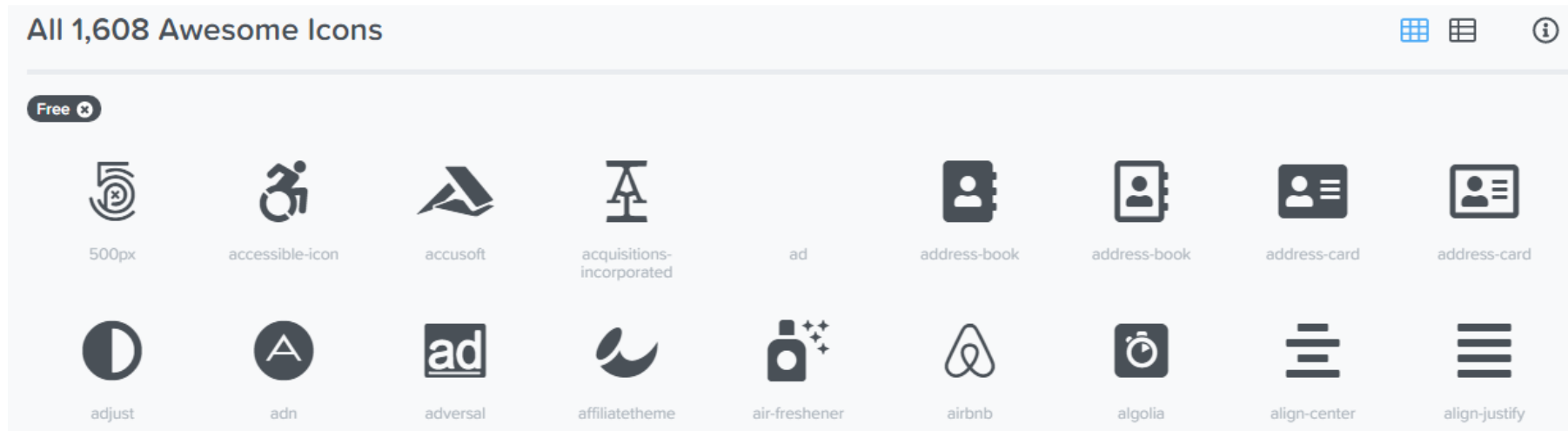https://chirpy.cotes.info/posts/getting-started/

Uno-timeline Theme (HTML+CSS)

▶ Clone the template: https://bit.ly/CCCGH1

▶ Enable GitHub Pages

▶ Update your settings:

  ▶ Edit _config.yml to add your personal details and links

  ▶ Link to projects in _data/project.yml

  ▶ Edit Readme.md to describe the purpose of your repo

▶ Additional edits, if you know some CSS:

  ▶ Additional code in css/main.scss will overwrite earlier formatting settings

    ▶ E.g., background-color: rgba(0, 32, 92, 0.6); sets the overall background color to Villanova blue (60% transparent)

▶ After each commit, GitHub Pages will regenerate your site right away

Font Awesome & Academicons & Favicon

- Stylesheet of a set of logos to link to social media or reference other brands

- To have the most current versions, sign up for a free Font Awesome "kit" (ID)
- Academicons is a similar stylesheet focused on academic brands (SSRN, Google Scholar)
- Favicon is the name of the icon that displays in your browser tab (design separately)

Chirpy Theme (Jekyll & Markdown)

- The Chirpy website has more features and suits blog-style sites well
- It is powered by Jekyll
  - Focus is just on your content
  - You can run Jekyll locally and then upload & publish your site
  - Or GH Pages can compile it for you
- Clone the template: https://bit.ly/CCCGH2
- Edit _config.yml
  - GitHub Actions will generate a gh-pages branch with files you typically don't have to edit
- Enable GitHub Pages for the *gh-pages branch* of this repo

Chirpy Theme (Jekyll & Markdown)

- **Write a post**
  - Uses the markdown language (use a cheat sheet, or Google)
  - Add a new file in the _posts folder
    - File name needs to follow: YYYY-MM-DD-TITLE.MD
  - Header includes main settings
  - Example:
    - filename = `2021-01-12-New site, who dis.md`

      ```
      ---
      title: A new beginning
      date: 2021-11-12 15:00:00 -0500
      categories: [Skills,Code]
      tags: [website, workshop]    # lowercase
      ---

      # This is my first post
      Welcome to my site! I'm so happy you are here. I look forward to contributing my skills for a better world.
      ```
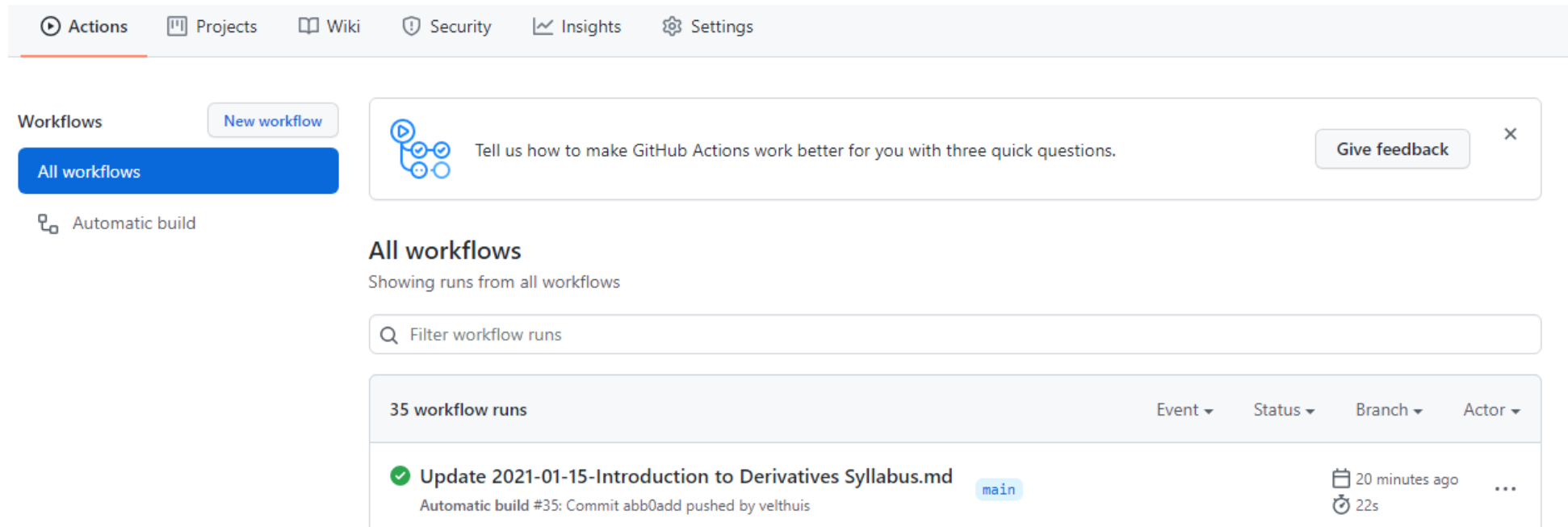   I can write code
      ```

      __Check back soon for more content!__
      ```

GitHub Actions

- ▶ As soon as you commit a change to your GH Page repo, GH Actions will rebuild your site
- ▶ Refresh your page to view the changes
  - ▶ Sometimes it helps to clear the browser cache or open it in a clean incognito browser, or wait a bit

Next Steps: Experiment & Learn!

- Continue to personalize or look for other templates
- Search Engine Optimization
- Sign up for Google Analytics
- Domain name
  - Register at NameSilo, Google Domains, or godaddy.com (~$10/year)
  - Update your GitHub Pages settings to include a custom domain
    - Follow GitHub Help instructions for all details
    - Wait 24 hours for DNS servers to update…
- Ensure accessibility
- Follow copyright and licensing guidelines
- Pull future updates from Chirpy

SAVE THE DATE!

7th Annual VU Women in Tech Conference

Saturday, January 29, 2022

Attend in person at the Inn at Villanova
Or
Virtually via our livestream

Registration information coming soon to www.vuwomenintech.org

VILLANOVA
UNIVERSITY
IGNITE CHANGE. GO NOVA!