Website Documentation | Mobile Bay DSA

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Part I

Hosting

Introduction

Our website is built with Jekyll, Tailwind, and Markwhen; hosted with Github Pages from https://github.com/alabenian/mobilebaydsa; and presented to https://www.mobilebaydsa.org/ for the public to see. This little book exists to help members work on the site and consider any alternatives to the current setup if needed.

Chapter 1

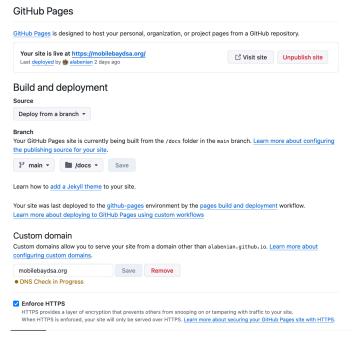
Basic Hosting Information

Our domain name mobilebaydsa.org is registered through Godaddy and currently presents the Github Pages site at https://alabenian.github.io/mobilebaydsa. It could present any other source, but I chose to use Pages because our Godaddy plan did not come with a site builder and other options would cost some money while Pages was free, and because it gives us complete control over the site as long as it's static (i.e. as long as we don't need to store data on the fly, and all processing can be left to the user's computer, unless an additional outside service is used) and its contents are safe to keep public. Godaddy is told where to get the website using four A-type "@" DNS records which give it the IP range of Github and one CNAME-type "www" record which tells it to use alabenian.github.io:

Type ②	Name ?	Data 💿	TTL ③	Delete	Edit
А	@	185.199.108.153	600 seconds	Ū	<u>0</u>
Α	0	185.199.109.153	600 seconds	Ū	<u>@</u>
А	@	185.199.110.153	600 seconds	Ū	<u>e</u>
А	@	185.199.111.153	600 seconds	Ū	<u>e</u>
CNAME	www	alabenian.github.io.	11	Hour Ū	<u>@</u>

All this is available from Domain/DNS/DNS Records at the mobilebaydsa.org control page in Godaddy; a more in-depth tutorial is available at this Medium page. Part of the original process involved also deleting the DNS records for the fallback site generated by Godaddy.

Github makes things easy to set up on its end: we publish the site to Github as a repository (https://github.com/alabenian/mobilebaydsa), enable Github Pages, which will automatically deploy it to [username].github.io/[repository name], then tell it to use the domain name mobilebaydsa.org and enforce HTTPS:



This should then automatically add a CNAME document containing "mobilebaydsa.org" to the repository.

1.1 Github Pages and Potential Alternatives

Github Pages is a nice, free choice of hosting which gives us maximal control over the website as mentioned before, but it can be somewhat daunting and even inaccessible to anyone who isn't already used to working with websites this way. The biggest con besides this is the fact that, on the free plan, all contents of the site have to be public unless an external service is used to store private, member-only information. Despite the extra difficulty of getting set up for those who would already have access, it's arguably more democratic than any other hosting service – changes are published to the site when someone makes changes on their own download of the repository and sends them to

Github through a **commit** with details of the changes they made to a local **branch** via the Github Desktop app (or via the command line), before making a **pull request** that, when accepted, will publish them to the **main** branch and thereby the official website. The pull request can be accepted by the owner (currently "alabenian," but could be transferred to an official Mobile Bay DSA account) or anyone who has been listed as a collaborator on the project. When it comes to something simple like editing text on the website or publishing a new page based on an existing layout, this can be done directly through the Github site by opening one of the markdown files in the root directory, clicking the edit icon, making changes, then making a request to commit them. This setup has the benefit of allowing *anyone* to suggest changes to the website to be confirmed by authorized accounts. This way everyone has a voice to publish blog posts, new pages, design ideas, etc. to the site such that official collaborators can see every change and prevent security problems.

One alternative would be a site builder like Wordpress.com which allows easier visual editing and supports blogs, etc. the same as Jekyll. Wordpress is especially nice because it would allow us to include member-only content on the website without a separate service, secured either by password or a whitelist of Wordpress accounts. Wordpress does not allow free sites to use custom domains, however, and the cheapest plan that *does* is priced at \$96/year. Godaddy has a forwarding feature that would let us send anyone at mobilebaydsa.org to the Wordpress site, though I don't know how this would affect the site's presence in Google searches. The other major differences to consider are restrictions on design (which can also be removed with a \$24/year custom CSS add-on) and a Wordpress watermark that comes with the free plan (I've seen this on other DSA chapter sites, and it's not *too* bad).

Part II

Basic Structure & Working on the Repository

Chapter 2

Basic Setup

2.1 Getting Started

If you want to make simple changes to the website like editing the text on certain pages, you can do this directly through the Github page https://github.com/alabenian/mobilebaydsa without going through the rest of the setup listed here. Just open the markdown file you want to edit on the Github repository site, click the edit icon on the top right, make the changes you want, and finally make a request to commit them.

If you want to make more complex changes to the site, you'll first need to establish a local branch to work on. I'm writing this guide under the assumption that you've never used Github before, in which case I'd recommend working through Github Desktop and Visual Studio Code. After downloading those apps, open Github Desktop, set up a Github account and follow the app's instructions to clone the repository alabenian/mobilebaydsa into whatever directory you'd like. Then open the folder with Visual Studio Code, and install the following command-line tools in your terminal (either as a standalone "command prompt" window or from the bottom terminal tab in VSCode).

There are three command-line tools in total used to build the site: **Jekyll**, **Tailwind**, and **Markwhen**. Installing Jekyll takes the greatest priority, as it is necessary to build the site to view your changes before publishing. Tailwind is second, because it generates CSS for any Tailwind class you use (and I'd rather not move away from using Tailwind classes primarily across the site). Finally, Markwhen is only used to render and update the timeline used on the Calendar page of the site, and isn't necessary to install locally at all – this should already be automated with Github actions.

Jekyll (https://jekyllrb.com/) simplifies work on the site by structuring the files by root directory markdown (or HTML) files containing the contents of

each page, _layout HTML files which are referenced in each to determine how the contents are presented, and _include HTML files which are referenced in either the layout or content files to display some extra piece of the website (e.g. a navbar or a commonly-occurring button or icon). The resulting file structure of the site will be discussed further in "Repository Structure." It requires Ruby (installation information here) and RubyGems (which should be included with Ruby) to install via gem install bundler jekyll in the terminal. After installation, the site can be built by opening the repository folder in the terminal (or cd-ing into it; this is already done if you've opened the entire folder in VS-Code, so you can use the terminal tab at the bottom) and running bundle exec jekyll serve. I've used some additional plugins on the site, so it'll throw an error on the first build and prompt you to install those; from there any work with Jekyll should be smooth sailing!

Tailwind (https://tailwindcss.com/) simplifies writing CSS for the site by supplying a set of classes with short and easy-to-remember names. It can be installed as a CLI tool with npm install tailwindcss @tailwindcss/cli. (This uses npm, so unfortunately you'll need to install Node first: https://docs.npmjs.com/downloading-and-installing-node-js-and-npm) To use it on the site, just open the folder in another terminal tab and run npx @tailwindcss/cli -i ./styles/initstyles.css -o ./styles/finalstyles.css --watch. It will then replace the "@import "tailwindcss";" in the initial styles file and watch for future changes to re-run the command in that terminal instance.

2.1.1 TLDR ("Just give me the instructions already!")

- 1. Create a Github account
- 2. Download and install Github Desktop and Visual Studio Code
- 3. Open Github Desktop and follow the instructions to log in and clone a repository. Use the link https://github.com/alabenian/mobilebaydsa or alabenian/mobilebaydsa.
- 4. Open Visual Studio Code, and within it, open the folder you created by cloning the repository in the previous step. Tell VSCode that you trust the author, then find the "terminal" tab at the bottom of the window.
- 5. (Windows) Download and install a Ruby release from https://rubyinstaller.org/downloads/.
- (Mac) Use Homebrew (if you don't already have it installed, first run /bin/bash -c "\$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAI to update your Mac's built-in installation of Ruby: brew update and then brew install ruby in your VSCode terminal.
- 6. (Windows) Download and install a release of NVM Windows from https://github.com/coreybutler/nvm-windows/releases. Then run "nvm install latest in your VSCode terminal.
- (Mac) Run the NVM install script: curl -o- https://raw.githubusercontent.com/nvm-sh/nvm | bash

- 7. Still in your VSCode terminal, run these commands:
- gem install bundler jekyll
- npm install tailwindcss @tailwindcss/cli
- 8. Mouse over to the "+" button to the right of the terminal and click it to create another terminal tab. In each of the tabs now open, run one of the following commands:
- bundle exec jekyll serve This will prompt you to install some additional plugins. Afterwards, it will build and serve your website to some localhost port. Take note of the "server address" it gives you immediately after this, open it in your browser, and bookmark it if necessary for future reference to see the effects of your changes.
- npx @tailwindcss/cli -i styles/initstyles.css -o styles/finalstyles.css --watch This will add any Tailwind classes used throughout the website to the base stylesheet, generating finalstyles.css, which is used as the main stylesheet for the whole website.
- 9. Start working!