Intro to GitHub Pages
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Agenda

- **What is GitHub Pages?**

- **Why should you use GitHub Pages?**

- **What can't you do with GitHub Pages?**

- **How to get started**

- **Setting up a custom domain**

- **Interactive Demo:**

  - **Creating a simple static site**

  - **Deploying the site to GitHub pages**

  - **Connecting a custom domain to your site**

- **Questions?**

What is GitHub Pages?

What is GitHub Pages?

- GitHub pages is a way to host your static files and websites on GitHub

- It's very simple to use and set up, only requiring a few clicks for existing repositories!

- It's one of the best ways for new and experienced developers to quickly get your websites live

- Event the WinHacks website, winhacks.ca, uses GitHub pages!

- GitHub pages can also be used to render Markdown files (like README.md) to HTML automatically!

  - It uses something called Jekyll to accomplish this
  - You can also use Jekyll to make blogs!

Why should you use GitHub Pages?

Why should you use GitHub Pages?

- **It's easy**
  - There are only a few steps needed to get your website live

- **It's free!**
  - It's completely free to use GitHub pages, so why not try it out?

- **It's convenient**
  - Instead of using GitHub to store the code for your website and another service to host it, why not just use GitHub for everything?

- **Show off your work**
  - If you don't already have a way to host your static sites, GitHub pages is a great way to do so!
  - This is perfect for showing off your hack so people can actually use it!

What you can't do with GitHub Pages (Drawbacks)

Drawbacks

- ## You can't host backend websites.
  - GitHub Pages is for static content only. For backend servers, you will need to use some sort of server like Google Cloud Platform (GCP).
  - What's the difference between backend and static?
    - Backend websites will be created using something like PHP, NodeJS, Python, Rails, etc.
    - Static websites are normally just HTML, CSS, and Javascript
- ## You can't as-easily host websites that use frontend frameworks
  - Some websites are built using frontend frameworks such as React, Svelte, and Vue.
  - These websites can be hosted on GitHub pages, but you need to **build them** first
  - This creates static files that GitHub pages can host.
  - We won't be covering this today, but there are many resources on how to do this, simply search up "how to host a React website on GitHub pages" or something similar

How to get Started

Getting Started

- Create a GitHub account (if you don't already have one) and log in
- Create a new repository where you'll host your static site
- Upload any files to the repository that you would like to be hosted
  - The "main" page of your website should be called "index.html"
- Enable GitHub pages in your repository
  - Go to your repository settings, and go under the "pages" section
  - This should bring you to the "Github Pages" settings screen
  - Under "source", select a branch (this is probably either "main" or "master")
  - Hit "save"
- Check out your new website!
  - It should give you a link to your website on the GitHub Pages settings screen we were on earlier
  - Now, every time you push to this repository your website will be automatically updated!

Setting up a Custom Domain

Setting up a Custom Domain

- Purchase a domain from a domain registrar. We recommend Namecheap
- Edit the domain's DNS records:
  - Create a new CNAME record
  - Make the "host" the subdomain you want (for example, 'www' for 'www.example.com')
  - Make the "destination" "YourUsername.github.io", replacing "YourUsername" with your GitHub username
  - Note: it may take a few minutes to an hour for this change to propagate!
- Go back to the repository settings and put your domain under the "custom domain" field
- Check out your new website!

Apex Domains on GitHub Pages

- What if you don't want your website to use a subdomain?
- Apex domains are the "root" domain. For example, in the website www.example.com, example.com is the apex domain
- Apex domains on GitHub pages can get a bit tricky
- Instead of using Apex domains, we recommend the following:
  - Configure the domain as normal using the "www" subdomain
  - Creating a URL redirect on your domain's DNS settings that points your apex domain to your www subdomain.
    - How this is accomplished is different depending on what registrar you bought your domain from
- If you want to learn more, read this article

Interactive Demo

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