SEO Optimization Lesson Plan

1. What is SEO Optimization?

- SEO Optimization (Also known as Search Engine Optimization), dives into the area of web design that is often overlooked, website visibility and website traffic.
- SEO Optimization should matter as it can help your website reach new and different areas on the website without having to copy and paste your link everywhere, and users can naturally find it on search engines.
- You can find SEO being used for almost every website, such as blogs, personal websites, and even big social media websites like Twitter, Instagram, and more.
- SEO doesn't require a high skill set to use, it's very accessible and easy to understand with a little bit of use.

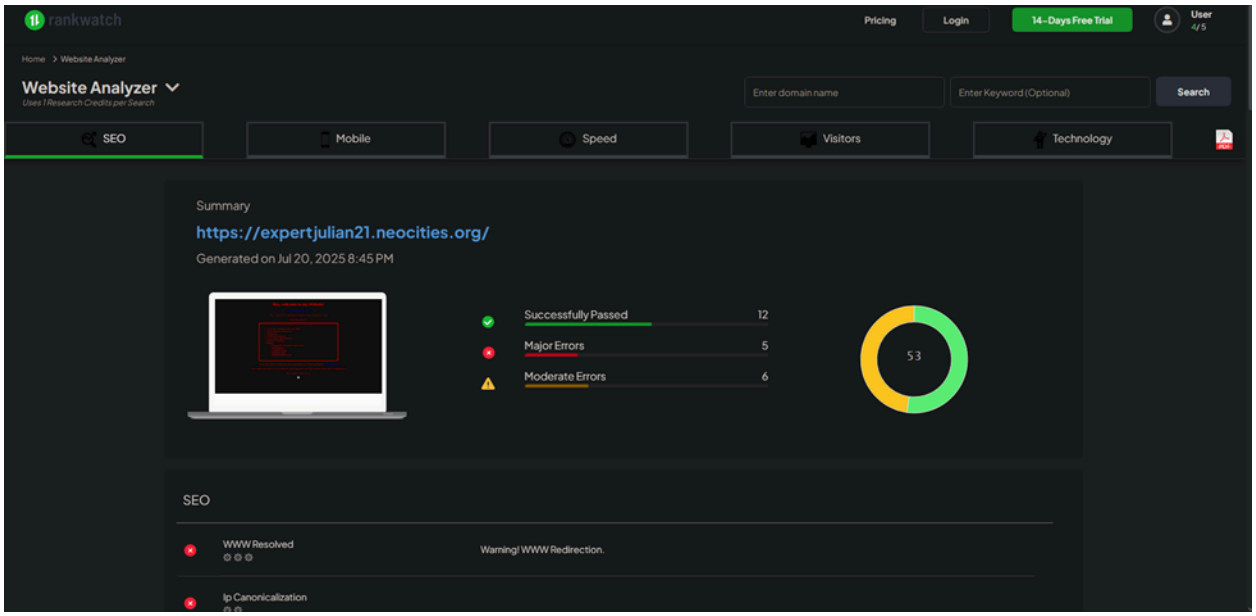
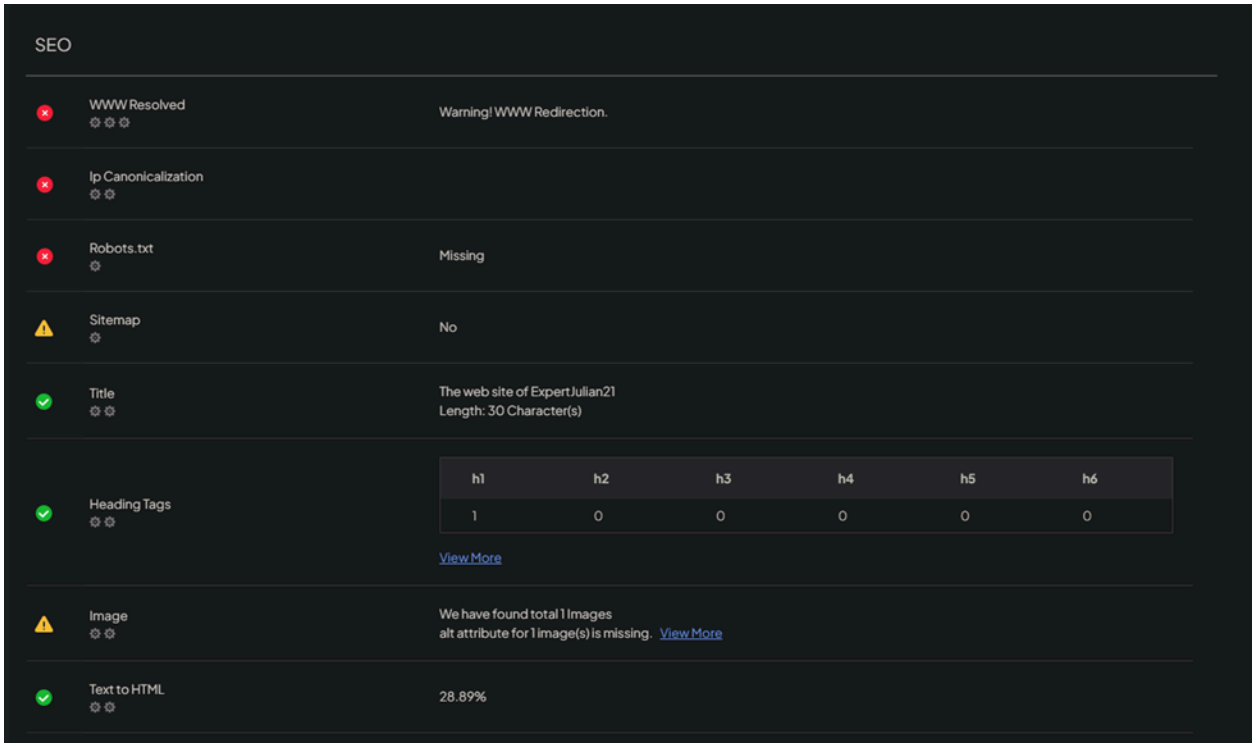
2. Basic Concepts and Terminology in SEO Optimization

- Keywords
    - Be able to use specific keywords to boost your website's popularity/traffic to allow for more users to search for it
- On-Page SEO

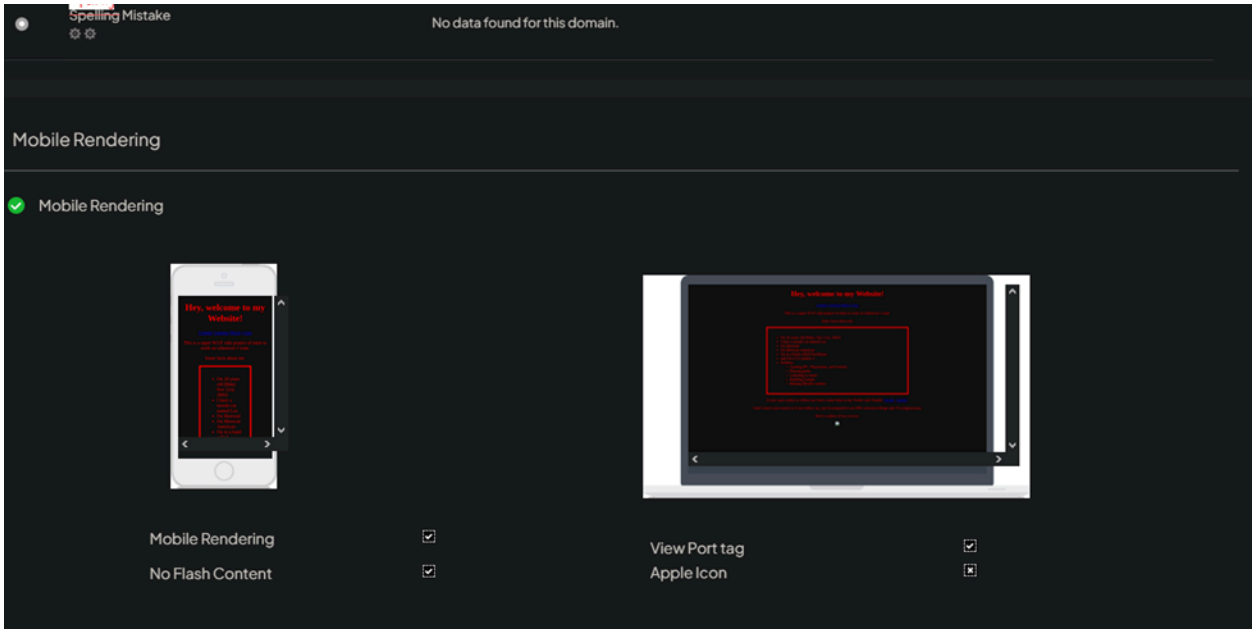
    - The actual content you're providing can also be a factor on how your website is viewed, and is also intertwined with the use of keywords, using more keywords in your content can boost views, interactivity, and traffic.
- Off-Page SEO
    - Boosting the reputation of your website with backlinks, social media engagement, and more
    - Backlinks
        - A hyperlink that redirects when clicked to the website (example: you partner with a big cooking blog that mentions your website by linking it, and thus allows users to be redirected to your website).

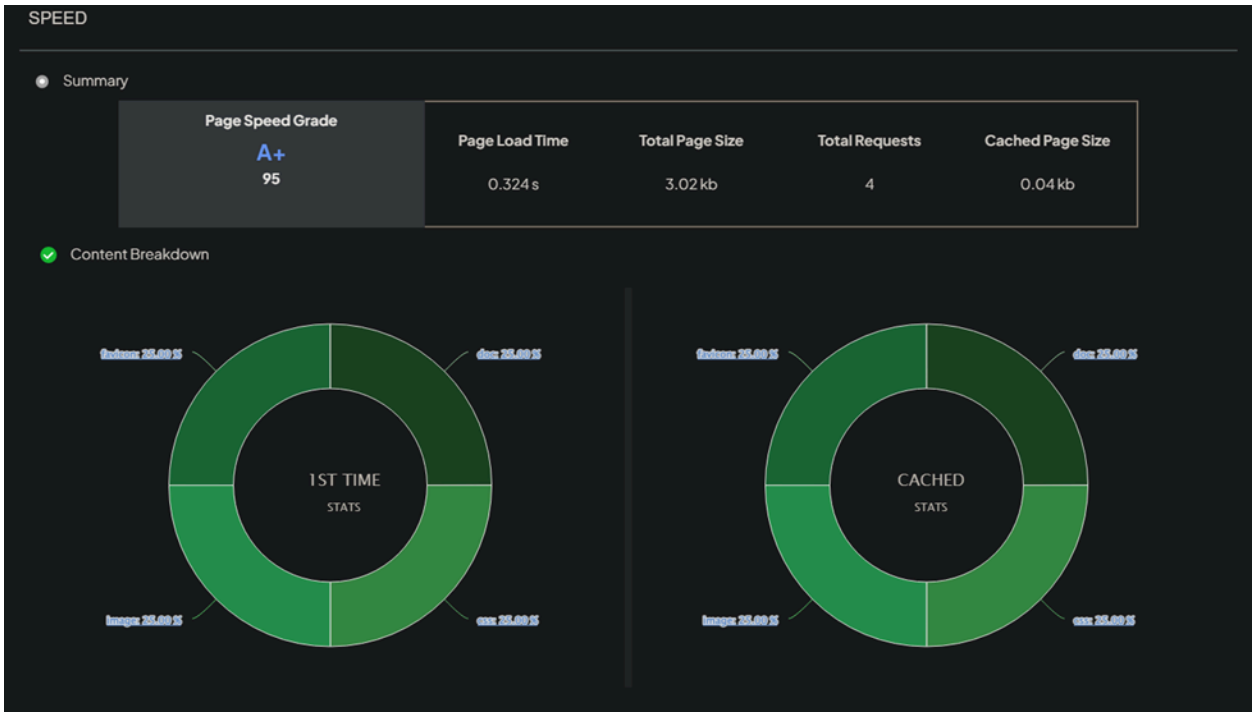
3. Example at SEO Optimization

- Using my webpage as an example, here's what to expect when using a SEO Optimizer website

- 
rankwatch
Pricing
Login
14-Days Free Trial
User
4/5
Home > Website Analyzer
Website Analyzer
Uses 1 Research Credits per Search
Enter domain name
Enter Keyword (Optional)
Search
SEO
Mobile
Speed
Visitors
Technology
Summary
https://expertjulian21.neocities.org/
Generated on Jul 20, 2025 8:45 PM
Successfully Passed 12
Major Errors 5
Moderate Errors 6
53
SEO
WWW Resolved
Warning! WWW Redirection.
Ip Canonicalization
- 
SEO
WWW Resolved
Warning! WWW Redirection.
Ip Canonicalization
Robots.txt
Missing
Sitemap
No
Title
The web site of ExpertJulian21
Length: 30 Character(s)
Heading Tags
h1 h2 h3 h4 h5 h6
1 0 0 0 0 0
View More
Image
We have found total 1 Images
alt attribute for 1 image(s) is missing. View More
Text to HTML
28.89%

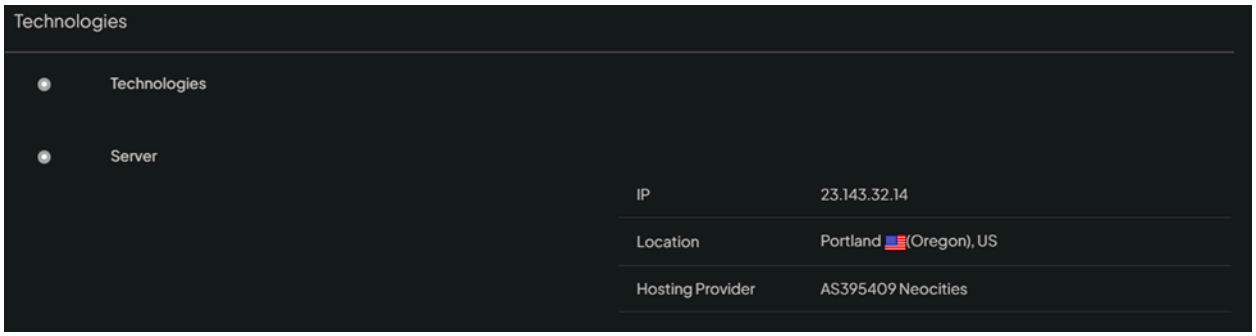
-
Flash
No
Iframe
No
Page Links
We found a total of 6 link(s)
External Links: doFollow (33.33%)
External Links: noFollow (0.00%)
Internal Links : (66.67%)
Favicon
No Favicon Found
Print CSS
No
Open Graph
No
W3C Validation
No
SSL Enabled
Yes

- 
Spelling Mistake
No data found for this domain.
Mobile Rendering
Mobile Rendering
Mobile Rendering
No Flash Content
View Port tag
Apple Icon

- 
SPEED
Summary
Page Speed Grade
A+
95
Page Load Time
0.324 s
Total Page Size
3.02 kb
Total Requests
4
Cached Page Size
0.04 kb
Content Breakdown
1ST TIME
STATS
CACHED
STATS

-
Speed Tips
Recommendation
Grade
Type
Priority
Make fewer HTTP requests
CSS, JS, Content
Medium
Add Expires headers
CSS, JS, Content
Medium
Compress components with gzip
CSS, JS
High
Make JavaScript and CSS external
CSS, JS
Medium
Remove duplicate JavaScript and CSS
CSS, JS
High
Traffic
Traffic Estimator
Global Rank
Not in Top 1M

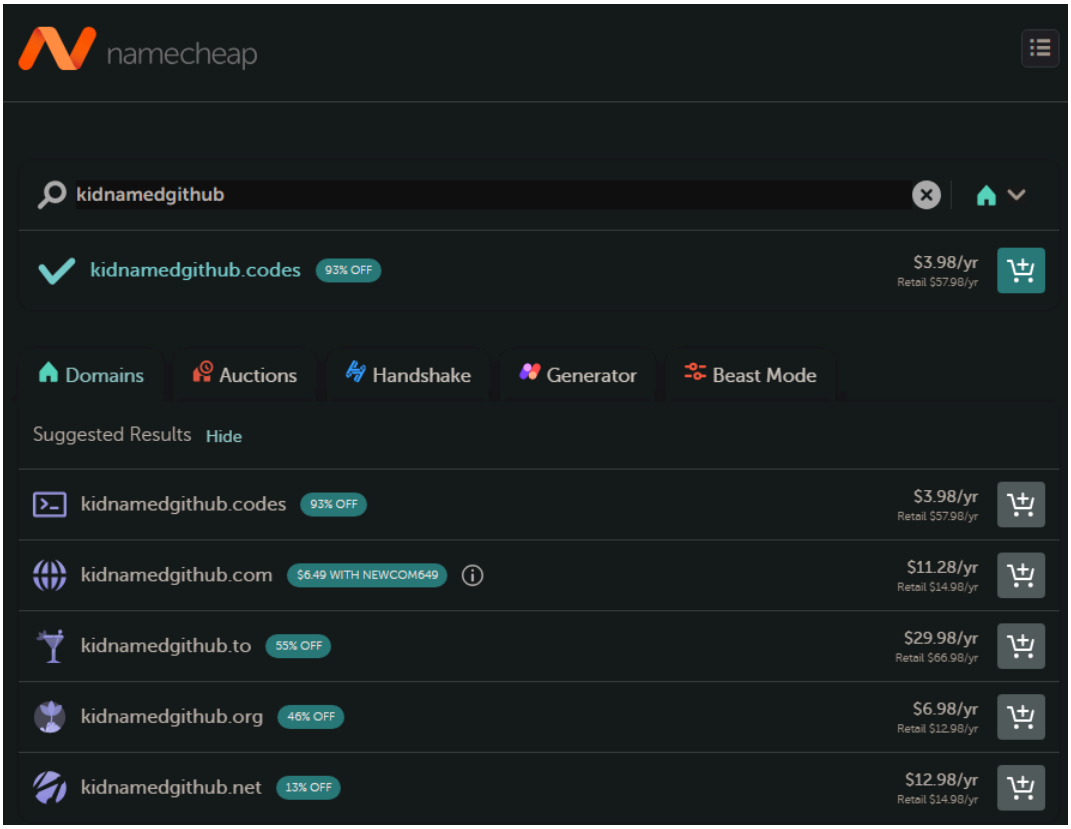
•

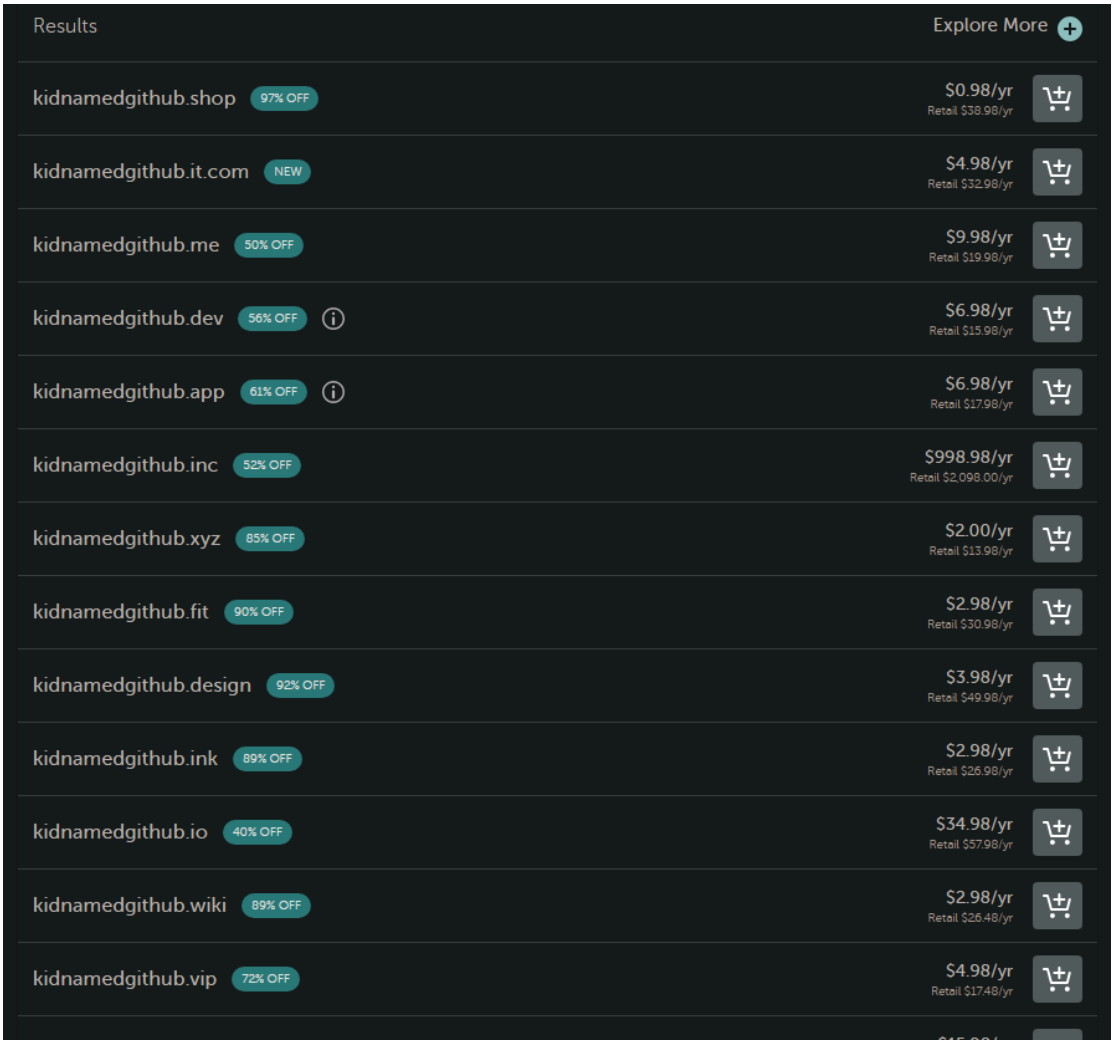


4. How can you use this in your projects?
    - SEO can be used in your project to help boost your website's traffic and interactions, for example; if you have a baking blog you can use keywords related to baking, use backlinks by being promoted by other users or websites, all of which can allow your website to gain more traffic and letting it grow to eventually one of the common results when searching for baking recipes.
5. Live Demo
    - We will use a website like https://www.rankwatch.com/tools/web-analyzer
    - We will use Nate's website to test https://www.natestech.site

Github Pages and Domains

Domains

1. What is a domain?
    - A domain is essentially an address to a website that you can assign to an IP/URL link to easily access said website.
    - You can acquire a domain very easily and at times without breaking the bank by using websites like namecheap.
    - 

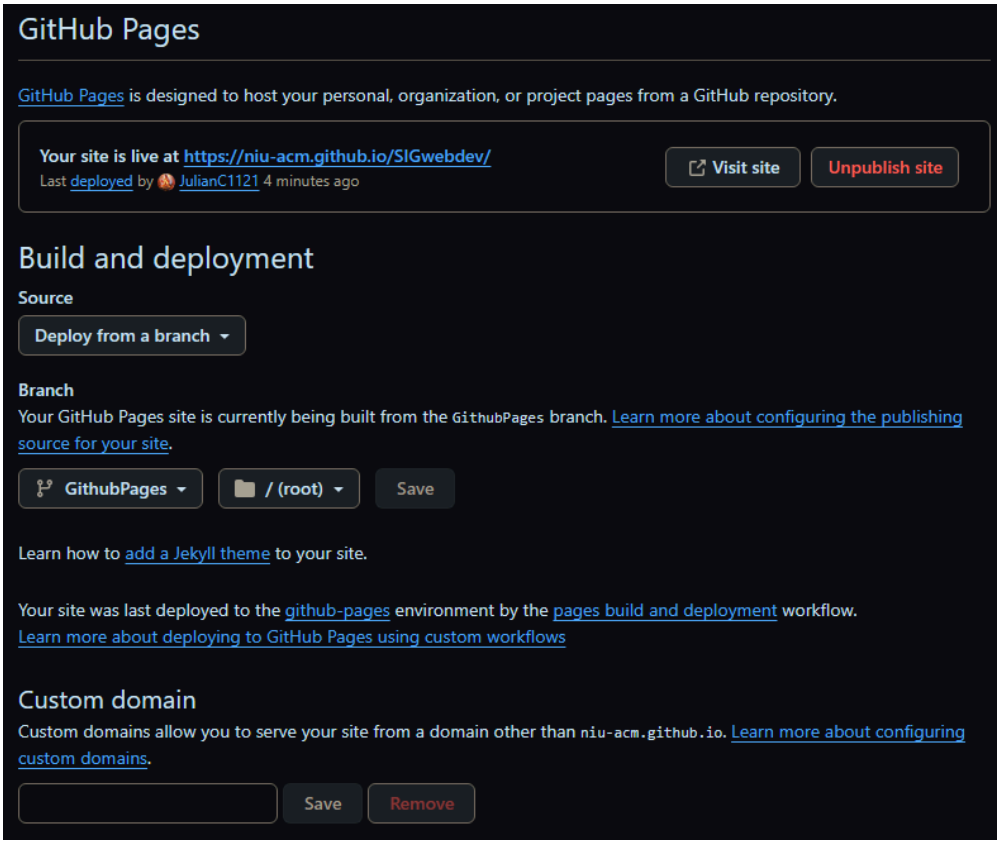
- 

2. How do they work?
    - When launching a website, you have the ability to use a domain to change the URL/search address to access your website.
    - EX: Say I have a website where the link is something like https:www.iamawebsite.com. Instead of having to manually type every single letter out to get to the correct page, you can instead use a domain like website.com and it would immediately redirect you to your website.
3. How do I acquire a domain?

- As mentioned earlier, you can use a service like Namecheap to get cheap/affordable domain names for your website
- Using a domain usually requires paying a subscription for it, and while certain names can be very expensive, you can usually find some solid domains for about $4-$25 a year, depending on what you want and how much you're willing to spend.

Github Pages

1. What is GitHub pages?
    - Github pages is a service within Github to launch and host a website for free.
    - Setting up your page isn't necessarily complicated, all you do is provide or create the files for your page in a specific repo, and once that's done, you can set it up within the GitHub website itself in the settings of your repository.
    - Github pages isn't hard or complicated to use, Github themselves do provide a quick and easy tutorial on how to publish/launch your website, which we will show here.
2. How do I use GitHub pages?
    - The first thing you do is create a new repository, specifically one that holds all of your current files for your project/website.
    - Once you have all the files, click on the settings tabs on Github and click on the pages tab.

- 

- On the pages tab, you can select whether you'd want to deploy using a branch, or with GitHub Action. In this case, we will be deploying from our branch.
- Select the specific branch where you have all the files for your website, whether it's a specific branch different from main, or from main itself.
- Click save, and GitHub will generate and host the website for you, it usually takes a little bit for it to be uploaded so give it a bit.
- Once your website is posted, you will be given a link to be directed to your new site!
- OPTIONAL: You can purchase a domain to then link it to your GitHub pages site. Instead of having to type the entire GitHub link, you can

instead use your domain to have a quicker/more accessible way of accessing your website. (Example: Typing ACMPage.com can just lead you to the website, instead of typing the entire URL)

3. Live Demo:
    - My personal GitHub Pages test site: https://julianc1121.github.io/SIGwebdev-main
    - ACM GitHub Pages test site: https://niu-acm.github.io/SIGwebdev