OIM3690 - Web Technologies

Publishing Your Website

Process of Publishing a Static Website

1. Create pages locally

  i. Create *.html* files, *images*, *styles*, *scripts* folders

  ii. Test and validate pages to ensure that they render correctly.

2. Select a web hosting service.

3. Register a domain name.

4. Transfer and maintain pages to the web hosting service.

5. Search engine optimization (SEO).

Prepare Your Web Pages

Test and Validate Pages

- Use HTML validator and CSS validator
- Test the website with different browsers
  - Chrome, Firefox, Edge, Safari
  - Other browsers
- Remove or correct any broken links found during testing.
  - Link Checker (after the website is published)

Improve Website Performance

- Code your website for quality and speed

- Optimize images, such as by compressing them and reducing their file size.

- Make the page simple and clean, with a clear and easy-to-use design.

- Advanced approaches:
    - Load JavaScript asynchronously to improve page loading times.

    - Consider using a content delivery network (CDN)

    - Use caching to reduce server load and improve response times

    - Minify and compress code

    - Limit the number of HTTP requests

    - Monitor website performance using analytics tools like Google Analytics

Read More about Website Performance

- Web Performance 101

- web.dev - Fast load times

- Yahoo - Best Practices for Speeding Up Your Web Site

Add Metadata in `<head>`

- Use appropriate `<title>` for each page

- Use `<meta>` elements to provide additional information about the webpage.
  - The `name` and `content` attributes:
    - `name` specifies the type of meta element.
    - `content` specifies the actual meta content.
  - Many types of `<meta>` elements for SEO and other purposes.

- Visit the homepage of your favoriate website, view page source or inspect
  - what `<meta>` elements do you find?

Common `<meta>` elements

- `description` :
  - A short description of the page

  - `<meta name="description" content="...">`

  - Google your favoriate website, then read the search result

- `keywords` :
  - A comma delimited list of search terms

  - `<meta name="keywords" content="...">`

- `author`
  - The author of the page

  - `<meta name="author" content="...">`

`<meta>` for Social Networking Sites

- **Open Graph Data**
  - A metadata protocol to provide richer metadata for website when shared on social media platforms.
  - Example: `<meta property="og:image" content="..."`
  - Read more about the Open Graph protocol
- Twitter Cards
  - Tehy allow you to attach rich photos, videos, and media experiences to tweets, helping to drive traffic to your website.
  - Read more about Optimizing Tweets with Cards

Select a Web Hosting Service

Evaluate Web Hosting Services

- Price

- Storage and transaction limits

- Technical features
  - Server uptime, backup and restore options, security measures, ...

- E-Commerce features
  - SSL certificates, shopping carts, payment processing options, ...

- Customer service features

- Reliability

Web Hosting Providers

- Some web hosting providers:
    - Godaddy

    - Bluehost

    - HostGator

- Cheap (or **free**) **cloud** alternatives for small websites
    - Amazon Web Services (AWS)

    - Google Cloud Platform

    - DigitalOcean

- **GitHub Pages** (*We will be using this for project*.)

Register Domain Name

- Web hosting service may bundle domain name registration.
  - Recommended if you have paid for web hosting.

- Check your desired names on domain registrars
  - For best recognition, aim for `.com` or `.org`
  - Other top-level domains (TLD):
    - *.us* (located in the U.S.)
    - *.co* (Columbia, but open to public and seems like *.com*)
    - *.info*, *.me*, *.name* (good for personal website)

- Domain privacy

WHOIS babson.edu

```
Domain Name: BABSON.EDU

Registrant:
        Babson College
        Horn Computer Center
        Babson Park, MA 02457
        USA

Administrative Contact:
        Babson Dns
        Babson College
        Horn Computer Center
        Babson Park, MA 02457
        USA
        +1.7812396483
        dns@babson.edu

Technical Contact:
        Domain Admin
        Babson College
        Horn Computer Center
        Babson Park, MA 02457
        USA
        +1.7812396483
        dns@babson.edu

Name Servers:
        NS1.DNSMADEEASY.COM
        NS4.DNSMADEEASY.COM
        NS3.DNSMADEEASY.COM
        NS2.DNSMADEEASY.COM
        NS0.DNSMADEEASY.COM

Domain record activated:    07-Oct-1992
Domain record last updated: 26-Sep-2022
Domain expires:             31-Jul-2023
```

Transfer files

- Use FTP client to upload files
  - many web hosting website also provide web-based file transfer

Search Engine Optimization (SEO)

- Google's Search Engine Optimization Starter Guide

- Lynda course - Danny Sullivan on SEO

- YouTube: SEO For Beginners

SEO: Keywords

- Keywords are those words/phrases that
  - describe your web site
  - users type in to search the web
  - your competitors are using
- You can
  - use keywords in internal links
  - use keywords in `alt` attribute tag
  - place keywords in `<h>` tags
  - use keywords multiple times in a page

Questions?