HTML & CSS: LEVEL 1

Instructor: Sean Thompson

seanmarshallthompson@gmail.com

Week 1 - January 12, 2017

https://seanmthompson.github.io/svc/

INTRODUCTIONS

- Who are you?
- What do you do/study/etc?
- What is your experience with web development?
- What are you hoping to get out of this class?
- What is a fun fact about you?

CLASS SCHEDULE

- Thursdays, 1/12 - 2/9, 6:30 - 9:30pm
- 10 minute break
- No grades, no tests.
- No homework, but practice is important!
- Questions and feedback highly encouraged.
- Each class will have a small project practicing skills from that class.

CLASS OVERVIEW

- Overview of Web Technologies
- HTML5 Elements
- CSS3 Properties and styling web pages
- Difference between HTML5/HTML & CSS3/CSS?
- Website structure, navigation and file organization
- Intro. to related technologies (Javascript, Git, Hosting)

SESSION OVERVIEW

- Overview of components of a website
- Code editors and web authoring tools
- Developer Tools
- Anatomy of an HTML Document
- Intro to Basic HTML Elements
- HTML Attributes
- Code and file organization and best practices
- Build your first webpage!

ODDS AND ENDS

- Save your work!
- Best way is to use a thumb drive!
- Other options:
  - Dropbox
  - Class folder server on computer (gets deleted at end of quarter!)
  - Let me know if I'm going too fast!

ODDS AND ENDS

- https://seanmthompson.github.io/svc/
- Class files and slides will be posted here.
- Download the zip of “start” files and save them on your flash drive or on Dropbox and work off of there.
- **seanmarshallthompson@gmail.com**

COMPONENTS OF A WEBSITE

CONTENT, DESIGN, & CODE

Content is the most important part of any website

Design is critical to the best user experience.

Code is the language of the browser to bring the content and design to life.

CONTENT

What am I presenting?

TEXT

- Articles
- Links
- Captions
- Lists

MEDIA

- Images
- Videos
- Audio
- Games

DESIGN

What is the experience?

USER EXPERIENCE & INFORMATION ARCHICTECTURE

- Layout
- Navigation
- User flows
- Ease of use

GRAPHIC DESIGN

- Colors
- Fonts
- Backgrounds
- Borders
- Icons

</> CODE

How does the computer understand?

- **HTML** structures and organizes **CONTENT**
- **CSS** stylizes the content and creates layout.
- **Javascript** adds interactivity.

PRACTICE, STUDY, PRACTICE

- Learning to write code is hard!
- Practice as much as you can. To get good at web development, it takes lots of repetition!
- Ask questions
- Consult online resources
  - https://developer.mozilla.org/en-US/
  - https://developer.mozilla.org/en-US/docs/Web/HTML
  - https://developer.mozilla.org/en-US/docs/Web/CSS
  - http://reference.sitepoint.com/css

CODE EDITING TOOLS

WEB BROWSERS

- **Chrome** - All platforms
- **Firefox** - All platforms
- **Safari** - Mac, iPhone, iPad
- **Internet Explorer** - PC/Windows

CODE EDITORS

VS Code*

Brackets*

Atom*

Sublime Text

Coda

* free

🛠 DEVELOPER TOOLS

- Firefox: **Firebug** 
  - http://getfirebug.com/
- Chrome: **Build in Developer Tools**
  - Right click > Inspect
  - Or View > Developer > Developer Tools
- Safari: **Built in Developer Tools**
  - Open Preferences > Advanced > Show Develop menu in menu bar
  - Right click > Inspect Element
- Internet Explorer: **Built in Developer Tools**
  - F12

<html>

HTML DOCUMENTS

HTML DOCUMENT

```
<!doctype html>
<html>
<head>
    <meta charset="UTF-8">
    <title>My First Page</title>
</head>
<body>
    <h1>The body is what the browser sees.</h1>
    <p>Several ways to format text.</p>
</body>
</html>
```

HTML ELEMENTS

```
<!doctype html>
```

- HTML elements have tags in <> brackets.
- Most times, an HTML tag will have an **opening** tag and **closing** tag. (some elements are “self-closing”)

```
<element>Content goes in here</element>

<p>I’m a paragraph!</p>
```

HTML RULES

- Tags are ALWAYS written in lowercase
  - <a> **NOT** <A>
- Tags must be closed
  - Stuff in here.
  - Content in here
  - <img src="myimage.png"> ("self-closing" tag)
- Indent tags that are nested for readability.

DOCTYPE DECLARATION

```
<!doctype html>
```

- The very first thing in any HTML document.
- Goes before <html> tag. (not an official actual tag)
- Tells the browser what version of HTML the document is written in.

HTML DECLARATION

`<html>`

- The top line after `<doctype>` declaration.
- Tells the browser “This is where everything starts!”

```
<html><!-- everything else --></html>
```

HEAD ELEMENT

`<head></head>`

- Must include a `<title>` for the document.
- Information about the document not visible to user.
- Styles in the form of CSS (inline or linking a stylesheet)
- Javascript (inline or linking a script file)

```
<head>
    <!-- metadata and resources —>
</head>
```

META TAGS

```
<meta charset="UTF-8">
```

- Used to specify meta information to the browser.
- Page title, page description, author, search engine keywords, and character encoding.
- UTF-8 represents Unicode, a system to handle text consistently in a variety of languages.

```
<head>
    <meta charset="UTF-8">
    <meta name="author" content="Your Name">
    <meta name="description" content="A thrilling page of
  HTML.">
</head>
```

TITLE TAG

```
<title>My First Page</title>
```

- Meta tag, goes in the <head>
- Required in all HTML documents.
- Defines the title in the browser toolbar.
- Provides title when page is bookmarked.
- Displays a title for the page in search results. (Google, Bing)

<!--HTML COMMENTS-->

- Can be used anywhere in the HTML document.
- Are not visible to the user.
- Great for leaving notes for yourself or other developers.

```
<!--  Comments are great for everyone! -->
```

BODY ELEMENT

`<body></body>`

- Area of the HTML document visible to the user.
- Contains all content of the document, such as tags, links, images, tables, etc.

```
<body>
    <!-- all my content —>
</body>
```

<html>

PRACTICE TIME!

MAJOR BODY ELEMENTS

- **Headings** for dividing up your page and content.
- **Paragraphs** of text.
- Bulleted, ordered, unordered **lists.**
- **Images**
- **Links** to other pages, websites or resources.

HEADINGS

```
<h1>My Page Header</h1>
```

- **Headings** range from most important to least important. (<h1> to <h6>)
- Search engines use the **<h1>** to determine important information about the page.

PARAGRAPHS

```
<p>Hi! I'm a paragraph!</p>
```

- Most text in the document. (main content)

LIST ELEMENTS

```
<ul>
  <li>Puppies</li>
  <li>Kittens</li>
</ul>
```

- Common types are **unordered** (aka **bulleted**) and ordered <ol> (aka **ordered**)
- Lists always contain **list items** (<li>)

IMAGES

```
<img src="kitten.jpg" alt="a picture of a kitten">
```

- Images <img> do not have a closing tag.
- Images have two required **attributes**:
  - **src** is where the file lives (local or external)
  - **alt** is a description of the image (used for screen readers, search engines, etc.)

LINKS

```
<a href="http://google.com">Google</a>
```

- Defines an anchor or link that creates a path to other pages or websites.
- Have a **required *href*** attribute that says where the link should send the user.
- Anything inside **<a>** tags are clickable.
- Can be text, an image, or any valid HTML.
- **target="_blank"** –> opens link in a new tab.

File Organization

- HTML files (.html)
- CSS files (.css)
- Javascript files (.js)
- Image files (.png, .jpg, .gif, etc)

FILE NAMING RULES

- NO spaces in filenames
- Capitalization matters (kittens.png is not the same as Kittens.png)
- Use only letters, numbers, hyphens (-) or underscores (_)
- Always start with a letter for file names.
- Your homepage is always **index.html**
- Recommended to use lowercase and hyphens (**about-us.html**)

FILE STRUCTURE

- On the web, folders are called **directories.** This is what dictates paths to resources such as html files, images, and CSS and Javascript files.
- HTML should usually go in the **main (root) directory.**
- Make **subdirectories** for media, CSS, and Javascript files.

FILE PATHS

- On the web, all resources have a Universal Resource Locator **(URL)**
- **Absolute paths** are URLs that always goes to the same place (e.g.
- http://google.com
- https://www.svcseattle.com/assets/images/logo.gif
- If someone renames or deletes the file, your link will be broken.
- Helpful read: http://www.coffeecup.com/help/articles/absolute-vs-relative-pathslinks/

FILE PATHS (RELATIVE)

- Relative paths are URLs that go to a resource in relation to what page you're on. (e.g **css/layout.css**)
- Resources "local" to you should all be relative paths. (your images, fonts, CSS and JS files)

`<img src="image.gif">` image is in the same folder as this file

`<img src="images/image.gif">` image is in a subfolder named "images"

`<img src="../images/image.gif">` image is in a superior folder named "images"

PRACTICE TIME!

ASSIGNMENT

- Create a website that has 2 pages (home page and about page)
- Each page should link to the other.
- Each page should contain a link to outside website
    - Bonus: have the link open in a new tab!
- Use 3 heading tags.
- Create a paragraph under each heading.
- Show 2 images, (one local, and one outside resource.
- Add one HTML comment

"HOMEWORK"

- Practice!
- Read the MDN Introduction to HTML
- Optional Reading
  - *HTML5 for Web Designers ch. 1-2*