



# Cornell DTI + ACSU Portfolio Workshop

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Please download a text editor of your choice, and sign up for a GitHub account

Text Editors: Atom, Brackets, Sublime, Visual Studio Code



# Agenda

- 1) Intro to HTML
- 2) Intro to CSS
- 3) Intro to Bootstrap
- 4) Your Brand New Website
- 5) Making it yours



# Intro to HTML

What is HTML?

Hypertext Markup Language

It is not a programming language (at least, not in the way we think of one)



# Intro to HTML

```
function greetUser (user) {  
    var userFullName = user.name.trim();  
    var userLoc = user.location;  
    alert("Good morning, " + user + "!");  
    alert("The weather in " + userLoc + " looks  
great today!");  
}
```

```
<html>  
    <head>  
        <title>Hello</title>  
    </head>  
    <body>  
        <p>Hello, Shea!</p>  
        <p>The weather in Ithaca looks great  
today!</p>  
    </body>  
</html>
```



# Intro to HTML

HTML is a **markup language**, not a programming language.

Web developers use it to dictate the **structure** and **content** of a website.

It has **very limited control** over its visual styles.



# Intro to HTML

`<html>` - Tells the browser that this is an HTML page

`<head>` - Contains links and instructions for the browser, mostly CSS imports and other technical info

`<body>` - Your content

`<title>` - The title of a webpage as it appears in browser tabs

HTML tags are represented with carrots `< >`, which wrap around the name of the HTML tag



# Intro to HTML

```
<html>
  <head>
    <title>My Portfolio</title>
  </head>
  <body>
    <p>Hello! This is my portfolio!</p>
  </body>
</html>
```



# Intro to HTML

`<p>` - A paragraph element, adds a small amount of margin above and below the element. Adds a new line when the element is done.

`<div>` - A “divider” element. Adds a new line when the element is done.

`<span>` - A “span” element. Does not add a new line when the element is done.





# Intro to HTML

```
<span>This is a span element.</span>
```

```
<span>This is another span element.</span>
```

```
<span>Another!</span>
```

```
<p>This is a paragraph.</p>
```

```
<p>There's a few paragraphs here...</p>
```

```
<div>A wild div appeared!</div>
```

```
<div>Another wild div appeared!</div>
```



# Intro to HTML

This is a span element. This is another span element. Another!

This is a paragraph.

There's a few paragraphs here...

A wild div appeared!

Another wild div appeared!



# Intro to HTML

Most HTML tags need to be closed with an identical tag, and adding `</tagname>` once the content is done

This tells the browser the exact confines of the HTML element

Some elements, such as `<img>` and `<input>` are *self closing* and do not need a `</img>` or `</input>`. Their content comprises of only the HTML element we are writing.



# Intro to HTML

```
<html>
  <head>
    <title>Pusheen</title>
  </head>
  <body>
    
  </body>
</html>
```



# Intro to HTML

```

```

“Src” attribute on “img” tells us where to look for an image.

If it is an absolute image on the Internet, it should be equal to that image’s exact URL

If it is a local image (hosted on your current website), it should be a **URL relative to the current file**



# Intro to HTML

- index.html
- img
  - pusheen.jpg
- about
  - about.html

If I'm in "index.html" and want to use "pusheen.jpg", I use the url "img/pusheen.jpg".

If I'm in another directory "about", and want to reference the same image, I have to "go up" a directory  
“../” instructs the browser to look in the parent directory, and go from there.  
“../img/pusheen.jpg”



# Intro to HTML

Let's code! I'm talking too much

1. Open your text editor and create a file called "index.html"
  - a. "Index.html" is the standard convention for the "home" page of websites
2. Create an HTML page using the standard HTML tags, plus one paragraph, one div, and one image



# Intro to CSS

## Cascading Stylesheets

CSS allows us to dictate the structure and visual representation of our site

Needs to work with HTML





# Intro to CSS

CSS combines HTML attributes with its own properties to change how a browser renders HTML

HTML is targeted through IDs, classes, the specific kind of HTML tag, and even more specific notation including its position with respect to other elements in the code

`<div id="home">...</div>` - `#home`

`<p class="content">...</p>` - `.content`



# Intro to CSS

## Class

HTML classes are represented with a period

## ID

HTML IDs are represented with the pound symbol (hashtag?)

## Rule

Instructions given to CSS on what to change about some HTML

## Selectors

How we tell CSS what HTML element(s) to target for some CSS rules



# Intro to CSS

**a** – Selects all links (a tags)

**img** – Selects all images (img tags)

**.class1** – Selects a class named “class1”

**#id2** – Selects an id named “id2”

**#id1.class2** - Selects an element with **both** an ID of “id1” and class of “class2”



# Intro to CSS

- CSS Selector options (wordy, just provided as a visual reference)
- **elementA + elementB**
  - Selects any elementB that is a sibling or neighbor of elementA
- **.class1 .class2**
  - Selects all class2 elements that are children (direct or distant) of class1
- **elementA > elementB**
  - Selects all elementB that are direct children of elementA
- **elementA.classB**
  - Selects all elementA elements that have a class of classB as well
- **elementB \***
  - Selects everything that is a child (direct or distant) of element. Use with caution.
- **#id1, #id2**
  - Select id1 and id2.



# Intro to CSS

Important version of the last slide

`.class1 .class2` – Selects all `class2` elements that are children (direct or distant) of `class1`

`#id1, #id2` – Select `id1` and `id2`



# Intro to CSS

## Common CSS Rules

- **color**
  - Change the color of text. RGB, hexadecimal, color name
  - Search “css colors”
- **text-align**
  - Changes alignment of text. left, center, right
- **font-family**
  - Changes font of text. “web safe”, custom, Google Fonts
  - Search “web safe fonts”
- **font-size**
  - Changes font size. pixel, percentage, em units.
- **text-transform**
  - Changes capitalization of text. uppercase, capitalize, lowercase



# Intro to CSS

## Common CSS Rules

- **height**
  - Changes height of image; pixels, em, %
- **width**
  - Changes width of image; pixels, em, %
- **background-image**
  - If you want to give your site a background image. You would not need to use an img tag for this, just make sure your site has the appropriate CSS class. You can also use just background or background-url.
- **float**
  - Force an image to the left or right.
- **display: block; margin: 0 auto**
  - Centers your image on the page. Two different lines, just written on one here because they need to go together or it won't work



# Intro to CSS

Let's code something cooler

- On the same page as before, create a new directory called “css”, and inside of it, make a new file called “styles.css”
- Experiment with some of the CSS properties I just described, up to you
- Link your CSS to your HTML in the <head> tag with the below tag:
  - `<link rel="stylesheet" type="text/css" href="css/styles.css">`





# Intro to Bootstrap

Bootstrap makes websites more consistent in design, and provides a set of reusable modules for web design that looks cool, clean, and is great to work with

Bootstrap is most known for the **grid system**; this allows content to be positioned and centered on a page in an intuitive and intentional manner, rather than letting the browser determine where something should go.



# Intro to Bootstrap

<https://getbootstrap.com/docs/4.0/examples/grid/>

Bootstrap works with a 12 column system to predict where content on a page will go, and give a clearer sense of intention as to where something might go

```
<div class="row">  
  <div class="col-4">.col-md-4</div>  
  <div class="col-4">.col-md-4</div>  
  <div class="col-4">.col-md-4</div>  
</div>
```

.col-md-4

.col-md-4

.col-md-4



# Intro to Bootstrap

<https://getbootstrap.com/docs/4.0/examples/grid/>

Bootstrap works with a 12 column system to predict where content on a page will go, and give a clearer sense of intention as to where something might go

```
<div class="row">  
  <div class="col-md-8">.col-md-8</div>  
  <div class="col-md-4">.col-md-4</div>  
</div>
```

.col-md-8

.col-md-4



# Intro to Bootstrap

Containers are the most common types of content in Bootstrap; they center an element on the page and provide consistent typography and coloring for your element

Fluid containers also allow content to take up the max width of their parent

You're free to change both with your own desired stylistic choices if you wish

I don't expect you to be able to read the image text, it's just there as a visual reference

[Image source](#)



```
<div class="container">
  <!-- Content here -->
</div>
```

Copy



```
<div class="container-fluid">
  ...
</div>
```

Copy



# Intro to Bootstrap

Brief code demo with containers!



# Intro to Bootstrap

Bootstrap comes with a lot of components that let you style elements and content on your site based on what you have

<https://getbootstrap.com/docs/4.0/components/>

Try experimenting with some components in your own time



# Intro to Bootstrap

More code!

1. Use the [nav](#) or [navbar](#) (more complicated but more function) component to create a new navigation menu on your page. Feel free to create corresponding pages on the navigation menu as well.
2. Use the [jumbotron](#) component to add your name and a brief description of yourself as a student, developer, designer, business leader, etc.
3. Add several [cards](#) to describe some cool projects or things you've worked on



## What's next?

1. Bootstrap is much more expansive than what was covered here. Feel free to [read more about it](#)
2. Lynda.com has many excellent web design tutorials and guides to help you understand HTML, CSS, and visual web design in more detail
3. JavaScript is a powerful web design tool. Learn how to make your websites pretty *and* functional!





# What's next?

Cool portfolios!

[Sheabelsky.me](https://sheabelsky.me) - No Bootstrap but still good for content and design

[Mattbarker.me](https://mattbarker.me) - Bootstrap, great design and functionality

Templates!

<https://colorlib.com/wp/bootstrap-portfolio-website-templates/>



# What's next?

PLS fill out

<https://dticornell.typeform.com/to/NNhl4D>