

With Madeline O'Moore Web Development Instructional Associate,
General Assembly

CODE IN ONE DAY: HTML + CSS CRASH COURSE

Madeline O'Moore

TEAM



WHO AM I?



INTRODUCTIONS

Instructional Lead



Madeline O'Moore

CLASS



MEET YOUR CLASSMATES



STUDENT INTRODUCTIONS

1. Name
2. Pronouns (He/Him, She/Her, They/Them)
3. What do you do?
4. Why are you taking this class?
5. Fun fact?



CODING 101: HTML + CSS

LEARNING OBJECTIVES

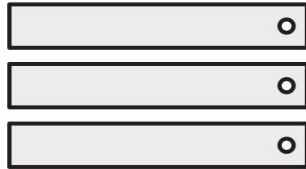
- Gain an overview of how the internet works and the web development landscape and where HTML/CSS fits in the web ecosystem.
- Use HTML and CSS to mark up a web page.
- Build a basic website from scratch and deploy it on the internet
- Get a basic understanding of what Javascript is for and how to learn it
- Describe the various opportunities to continue learning web-development.



THE WORLD WIDE WEB

HOW DOES THE WORLD WIDE WEB WORK?

THE WORLD WIDE WEB

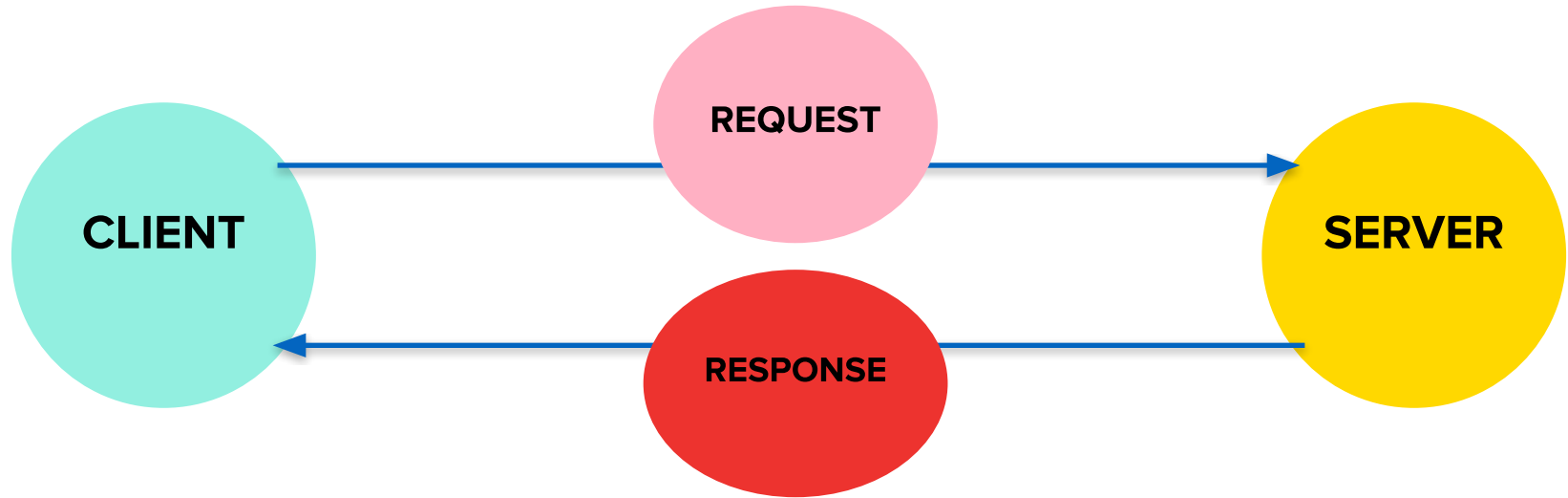


Server

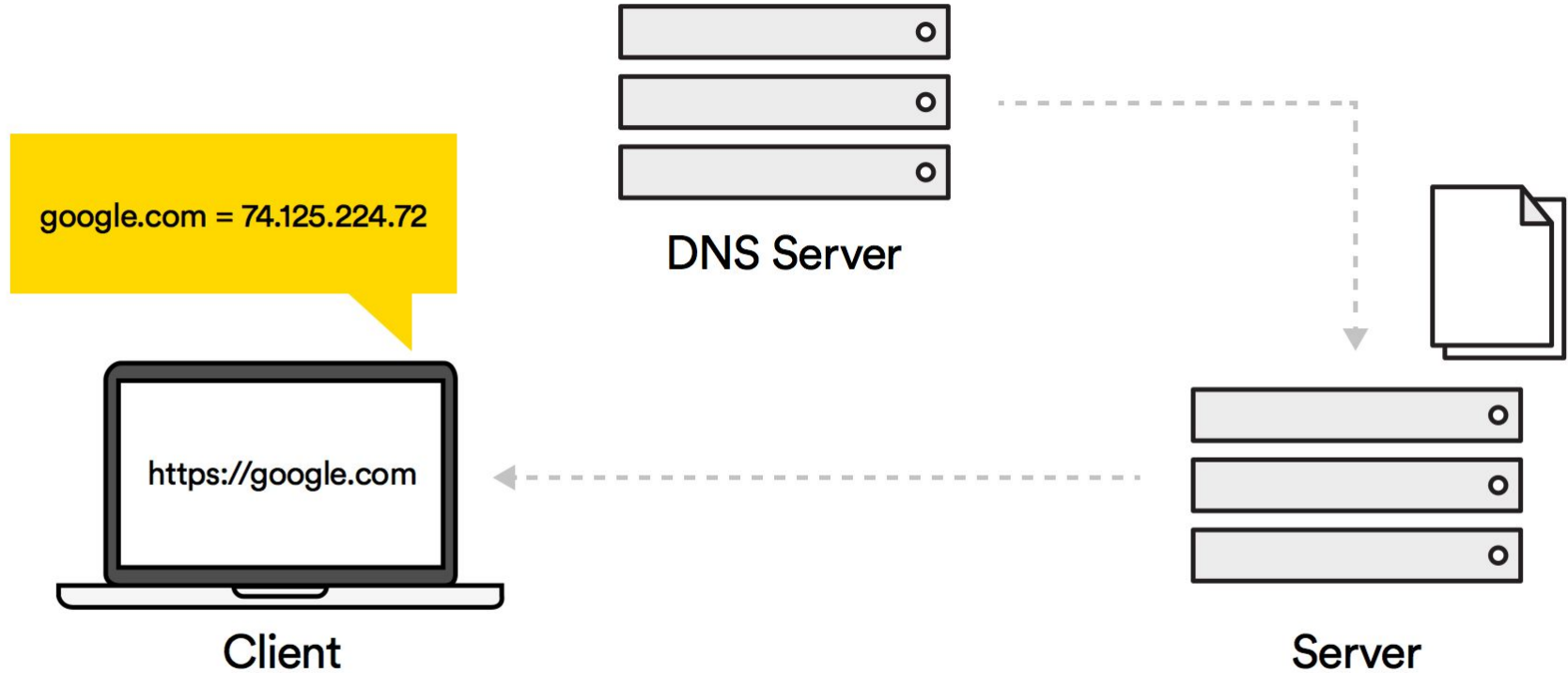


Client

THE WORLD WIDE WEB



THE WORLD WIDE WEB



WEB DEVELOPMENT

SO, WHAT'S WEB DEVELOPMENT?

WHAT'S WEB DEVELOPMENT?

- The creation and management of both websites and web-based applications
- Made up of the Front End and Back End
- Most Developers will try to convince you that it is magic, but it is mainly editing text files (coding / programming), and solving problems



WEB PRODUCTION WORKFLOW

THE FRONT END

WHAT DOES FRONT END EVEN MEAN?

“A mix of programming and layout that powers the visuals and interactions of the web.”



THE FRONT END IN SUMMARY...

- The Front End is what the user sees
- It powers the visuals and interactions of the web
- It is meant to be pretty, but doesn't always happen that way
- Made up of HTML, CSS and Javascript



WEB PRODUCTION WORKFLOW

THE BACK END

WEB PRODUCTION WORKFLOW

THE BACK END

- It is what goes on behind the scenes
- Consists of databases, servers etc.
- Lots of languages:
 - Ruby (Ruby on Rails), Node.js, PHP, Python, C++ etc.



The Three Amigos...

FRONT END LANGUAGES

FRONT END IS MADE UP OF

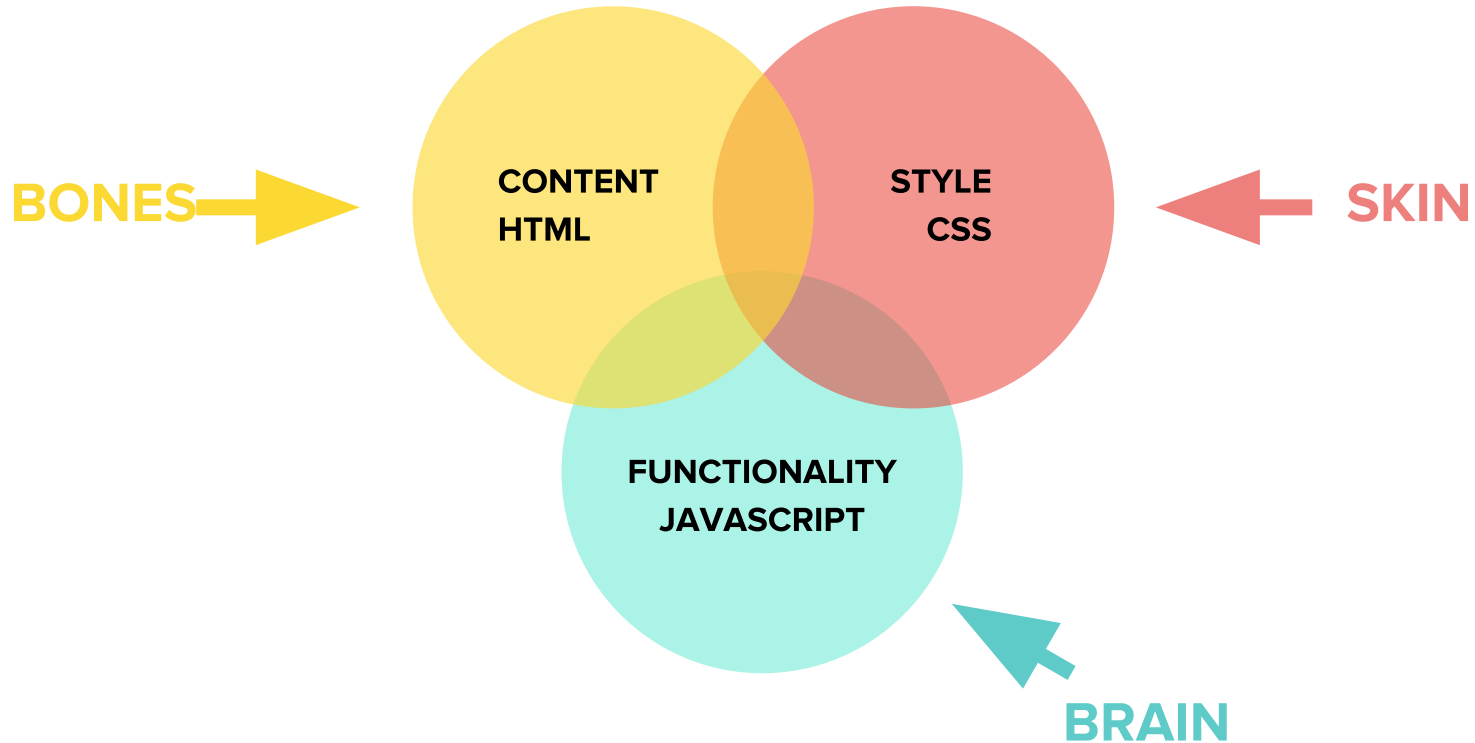
HTML

CSS

JavaScript



THE THREE AMIGOS: STRUCTURE, STYLE, BEHAVIOR



FRONT END

DEEP DIVE INTO HTML + CSS



Solo Exercise:

DISTINGUISH BETWEEN HTML, CSS, AND JS

HTML/CSS/JS



EXERCISE

DIRECTIONS

Determine which interaction used HTML, CSS or JS

1. Visit google.com.
2. How did the text About and Store in the upper left hand corner get on the page? HTML, CSS or JS?
3. What on this page is created by CSS?
4. What on this page is created by Javascript?



FRONT END

GUIDED PRACTICE - HTML

HTML CODE ALONG

1. Create a folder called **bootcamp** on your desktop
2. Get the code_along zip folder from slack and unzip it and place it inside of your **bootcamp** folder



HTML CODE ALONG - ATOM

1. Open **Atom**
2. Drag and drop your **bootcamp** folder onto Atom to open your code in Atom. This will open the **bootcamp** folder in project view and you should be able to see your **code_along** folder on the left hand side panel of atom.



HTML CODE ALONG - OPENING INDEX IN BROWSER

1. Open your index.html file in your browser by opening your **code_along** folder in your finder window.
2. Drag and drop your index.html file from your code_along folder onto **chrome** (or your browser of choice)
3. Now when you make edits in Atom you can simply save your file in atom and then reload your browser to see the changes!



HTML BASICS



STRUCTURAL MARKUP



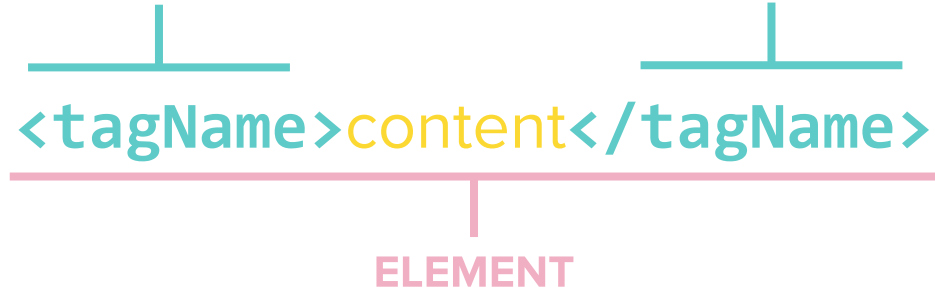
HTML : HYPER TEXT MARKUP LANGUAGE

- HTML is made up of tags
- Tags = < >
- Tags tell the browser how to format content
- e.g Will the content be formatted as an image or as a link?

HOW DO I WRITE HTML?

OPENING TAG

CLOSING TAG

The diagram illustrates the structure of an HTML element. It features the text '<tagName>content</tagName>' in a monospace font. The opening tag '<tagName>' is colored teal, the content 'content' is colored yellow, and the closing tag '</tagName>' is colored teal. Above the opening tag, the text 'OPENING TAG' is written in teal, with a teal line and a vertical tick mark pointing to the tag. Above the closing tag, the text 'CLOSING TAG' is written in teal, with a teal line and a vertical tick mark pointing to the tag. Below the entire string, a horizontal pink line spans its width, with a vertical tick mark pointing down to the word 'ELEMENT' written in pink below the line.

```
<tagName>content</tagName>
```

ELEMENT

HTML SETUP

BASIC LAYOUT OF AN HTML DOCUMENT

CREATING THE HTML MARKUP

```
<!DOCTYPE html>
```

```
<html>
```

```
<head> — sets off title and info that won't be displayed
```

```
    <title>My first webpage</title>
```

```
    <meta charset="UTF-8"> — sets character encoding
```

```
</head>
```

```
<body> — visible portion
```

```
    <h1>Hello World!</h1>
```

```
</body>
```

```
</html> — ends the HTML document
```



STRUCTURAL TAGS — HEADINGS & PARAGRAPHS

ELEMENT	DESCRIPTION	EXAMPLE
h1	Main headings	<code><h1>The Explorer</h1></code>
h2 - h6	Subheadings	<code><h2>Articles</h2></code>
p	Paragraph of text	<code><p>This is a really cool site.</p></code>

HTML CODE-ALONG

Elements can be nested inside other elements.

```
<ul>  
  <li>Monday</li>  
  <li>Tuesday</li>  
  <li>Wednesday</li>  
</ul>
```

STRUCTURAL TAGS — UNORDERED LISTS

ELEMENT	DESCRIPTION	EXAMPLE
ul	Unordered List	<pre> Monday Tuesday Wednesday </pre>
li	List Item	

HTML BASICS

ATTRIBUTES — ANCHORS AND IMAGES

ANCHORS (LINKS TO OTHER PAGES)

- › Users can click on anything between the opening and closing `<a>` tags.

```
<a href="">Amazon</a>
```



CLICKABLE TEXT

ANCHOR

- Specify which page you want to link using the href attribute.

```
<a href="http://www.amazon.com" target="_blank">Amazon</a>
```

PAGE THE LINK TAKES YOU TO



THE IMAGE TAG

```

```

PATH TO IMAGE FILE INCLUDING
HTTP OR HTTPS

TEXT
DESCRIPTION

HTML CODE-ALONG SOLUTION

<https://codepen.io/madeline10302/pen/OEeNbV>



CSS



BASICS OF THE SYNTAX AND GUIDED PRACTICE - CSS

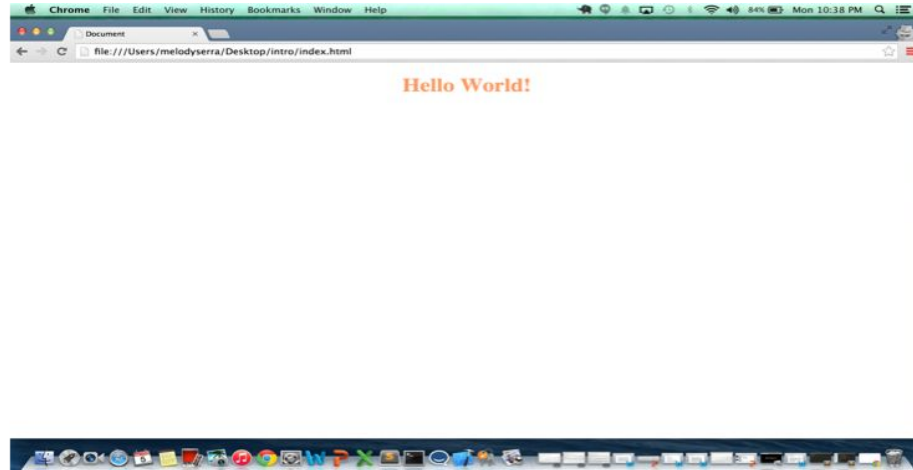


CSS : CASCADING STYLE SHEETS

BASIC LAYOUT OF AN EXTERNAL CSS FILE

HOW DO YOU CONNECT THE TWO FILES?

```
<link rel="stylesheet" href="css/style.css">
```



WHAT IS CSS?

We use CSS to add styles to the HTML elements on our page.

What we are styling
(selector)



```
p {  
  color: blue;  
  font-size: 20px;  
  font-style: italic;  
}
```



Styles!

COLOR

PROPERTY	VALUE	DESCRIPTION	EXAMPLE
color	color	Text color	<code>color: #22475E;</code>
background-color	color	Background color	<code>background-color: green;</code>

```
body {  
  background-color: #22475E;  
}
```

```
h1, p {  
  color: #98D2BF;  
}
```

CSS : CASCADING STYLE SHEETS

COLORS

- There are many ways to express colors in CSS
 - Hex Codes: #000000;
 - RGB(0,0,0): Range from 0 to 255
 - RGBA(0,0,0,0): Adds a 4th value alpha for opacity, range from 0-1 for opacity



CSS : CASCADING STYLE SHEETS

You can find color values by visiting:

https://www.w3schools.com/colors/colors_picker.asp



TYPEFACE TERMINOLOGY — PART 1

PROPERTY	VALUES	EXAMPLE
text-align	left, center, right, justify	<code>text-align: center;</code>
text-transform	uppercase, lowercase, capitalize	<code>text-transform: uppercase;</code>
text-decoration	none, <u>underline</u>	<code>text-decoration: underline;</code>
letter-spacing	px value	<code>letter-spacing: 1px;</code>



TYPEFACE TERMINOLOGY — PART 2

PROPERTY	VALUES	EXAMPLE
font-weight	normal, bold	font-weight: bold;
font-style	regular, italic	font-style: italic;
font-size	px value	font-size: 20px;



FONT FAMILY

PROPERTY	VALUES	EXAMPLE
font-family	"font name", sans-serif, serif	font-family: "Georgia", serif;

Arial Georgia

- We can provide a comma-separated list for the value.
- The browser will display the first font that is installed on that computer.

Google Fonts

Web font services — like Google Fonts — allow us to ensure that all users can see the same font.

1. Visit the link to Google Fonts on the dashboard
2. Click the tab that pops up at the bottom:



3. Click the "Embed" tab and @import
4. Copy the import code and paste it in your CSS file

```
body {  
  font-family: 'Raleway';  
}
```

```
p {  
  font-family: 'Lato';  
}
```



Solo Exercise:

SELF PRACTICE

HTML/CSS
PRACTICE



EXERCISE

EXERCISE

Inside of Atom, (create a new folder or use the one from the HTML practice) type some HTML about a pet shop, then style it with some basic CSS.

Look Up:

- Change **text color**: color
- Change background color: background
- Adjust font: font-size; font-style; font-family; text-decoration
- Add a border: border
- Change the alignment: text-align

HELP!?: Google is your best friend, but also check out [w3schools.com/cssref/](https://www.w3schools.com/cssref/)





Solo Exercise:

SELF PRACTICE

HTML/CSS PRACTICE



EXERCISE

EXERCISE

Make sure to add the following animals to your page in two unordered lists:

- Snakes
- Birds
- Caterpillars
- Tiger
- Wolf
- Parakeet
- Piranha
- Tuna
- Cat
- Dog



SELF PRACTICE - Example Solution

Slack channel > pet_shop_example



LUNCH BREAK

REVIEW

So far we've learned:

- The basics of how the internet works
- The difference between front-end and back-end development
- The three front end languages and how we use them to create a web page
- Some basic HTML and CSS



TARGETING SPECIFIC ELEMENTS



- Classes & IDs allow us to add 'labels' to elements so we can target them in our CSS.

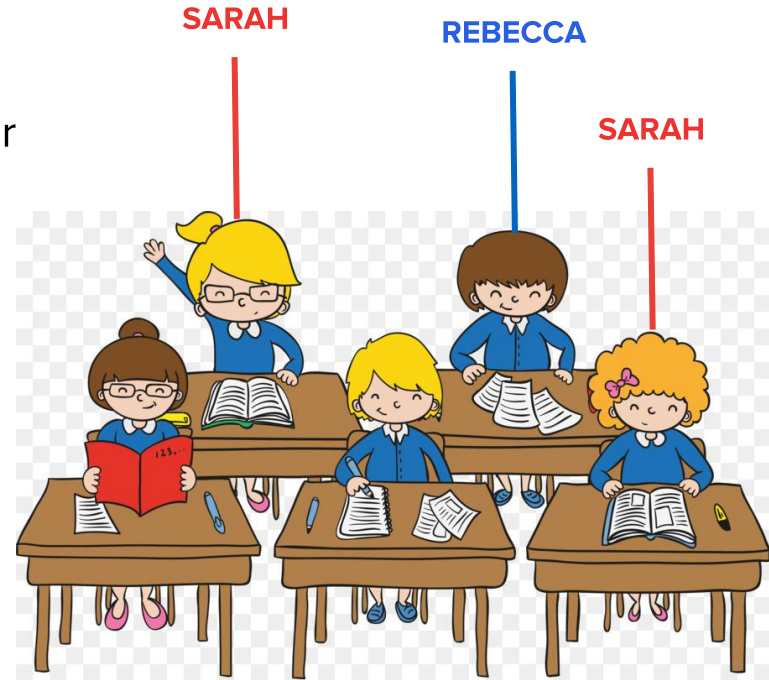
CLASSES AND IDS

CLASSES

- Classes are used to group elements together

```
<div class="alert">Content</div>
```

```
.alert {  
  color: red;  
  font-size: 20px;  
}
```



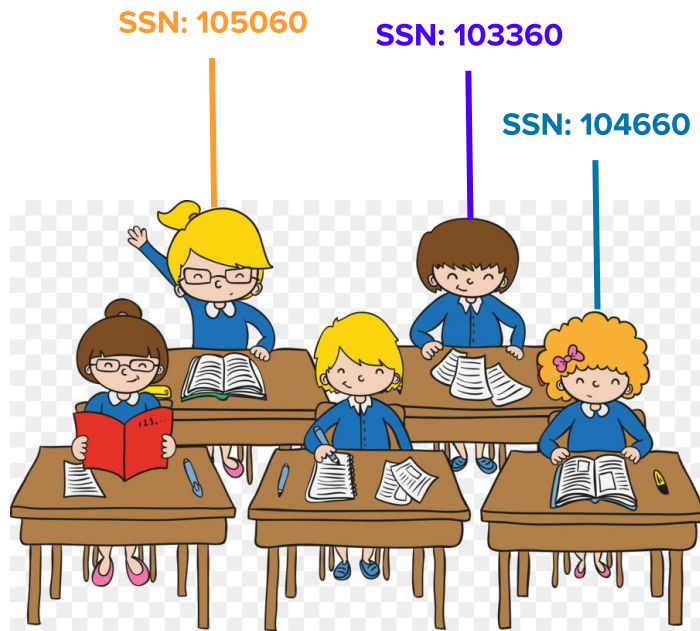
CLASSES AND IDS

IDS

- Ids are used to target one specific element
- Each element can only have one id
- Important: two elements on the same page cannot have the same id

```
<nav id="main-nav">Content</nav>
```

```
#main-nav {  
  text-align: center;  
}
```



BAD HTML & CSS

Before we move on let's discuss some best practices for our HTML and CSS:

- Don't repeat yourself (DRY Code)
- Be consistent in your naming and format



EXERCISE

We Do:

- Let's discuss some logical classes and id's to add to our pet shops
- Are there any elements that get repeated a lot?
Can we give them a class name?
- We have to UL and we want one to have a background color of lime. How can we choose only one UL to style?



Solo Exercise:

CLASSES AND ID'S : YOU DO

ID / CLASSES



Using CSS Classes:

- Make all of the mammals have **red text**.
- Make all of the birds have **blue text**.
- Make all of the fish have **orange text**.
- Make all of the mammals bold.
- Make all of the birds italic.
- Make all of the fish underlined.

Using CSS ID's Apply the following background to your first unordered list

- background-color: lime

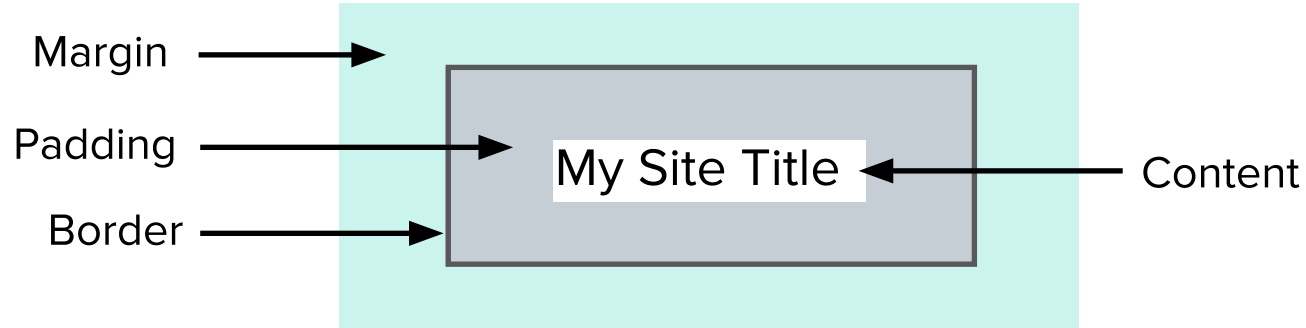
CSS CONT



MORE CSS!!!!!!



BOX MODEL — BLOCK ELEMENTS



BOX MODEL — BLOCK ELEMENTS

Every element is by default considered a box with 4 parts

- Content: The content of the box where text and images appear.
- Padding: Clears and area around the content
- Border: A border that goes around the padding
- Margin: Clears the area around the border



CSS BOX MODEL: MARGIN AND PADDING

We can use margin and padding to position elements and create layout.

You can add margin and padding to all four sides or just one side of the box.

```
p {  
  margin: 10px 10px 2px 5px;  
}
```



The diagram illustrates the shorthand property `margin`. It shows the property name in yellow, followed by four values in teal: `10px`, `10px`, `2px`, and `5px`. Each value is underlined with a red line. Below the underlines, vertical red lines connect them to the labels `TOP`, `LEFT`, `BOTTOM`, and `RIGHT` respectively. The label `PROPERTY` is positioned below the first underline.

PROPERTY TOP LEFT BOTTOM RIGHT

```
p {  
  margin-left: 10px;  
}
```



The diagram illustrates the `margin-left` property. It shows the property name in yellow and the value `10px` in teal. Both are underlined with a red line. Below the underlines, vertical red lines connect them to the labels `PROPERTY` and `VALUE` respectively.

PROPERTY VALUE

```
p {  
  padding: 10px 5px;  
}
```



The diagram illustrates the shorthand property `padding`. It shows the property name in yellow, followed by two values in teal: `10px` and `5px`. Each value is underlined with a red line. Below the underlines, vertical red lines connect them to the labels `PROPERTY` and `VALUE` respectively.

PROPERTY VALUE



Solo Exercise:

CSS BOX MODEL AND LAYOUTS

CSS



EXERCISE

YOU DO

Add margin and padding to some animals in your pet store.

- Give all mammals 30px of padding on the left and right sides
- Give all of the birds 30px of margin on the top and 40px of padding on the bottom
- Give all the fish 30px of padding on all sides, and 40px of margin on the top

Use your existing CSS rules!



DISPLAY

You can change whether elements are displayed as inline or block elements by using the **display** property.

```
li {  
  display: inline;  
}
```

DISPLAY — INLINE-BLOCK

Make a **block** or **inline** element flow like an **inline** element, while allowing us to set a width, height, padding, and margin:

BEFORE:

Monday

Tuesday

Wednesday

```
li {  
  display: inline-block;  
}
```

Monday

Tuesday

Wednesday

- Elements will sit on a line next to each other
- We can now set a width, height, and margin & padding on top and bottom!!

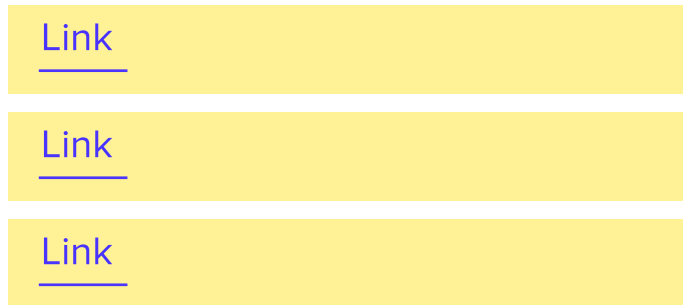
DISPLAY — BLOCK

Make an inline element act like a block-level element:

BEFORE:



```
a {  
  display: block;  
}
```



- Elements will stack on top of each other
- We can add all dimensions (width, height, padding, margin)

BOX MODEL — BLOCK ELEMENTS

- Block Level Element

I am a block level element

- Block Level Element with a width property - The margin extends to the end of the page

I am a block level element

- Inline Element

I am an inline element

TEXT-ALIGN

	TEXT-ALIGN
BLOCK	yes
INLINE / INLINE-BLOCK	no

CENTERING THINGS — IMAGES

Centering an image:

```
img {  
  display: block;  
  margin: 40px auto;  
}
```




Group Exercise:

CSS BOX MODEL AND LAYOUTS



EXERCISE

WE DO:

- Center align the `` tags horizontally.



CSS PSEUDO SELECTORS

Pseudo Classes are ways to target not just an element, but a specific state of an element (How you can view an element at a specific point in time)

- Common pseudo classes are hover, focus, and visited

PSEUDO CLASS

```
└  
a:hover {  
  font-weight: bold;  
  color: red;  
}
```



Solo Exercise:

CSS PSEUDO SELECTORS

CSS



EXERCISE

WE DO:

Lets try adding some pseudo-classes to our page!

- Try modifying a few animals to have hover effects!



FRESH PRING Y'ALL

PROJECT

PROJECT

Everyone go to:

http://ga-wdi-exercises.github.io/belair_biography/

http://misteroh10302.github.io/practice_website/index.html

We will be using this as an example for creating our own personal webpages

This does not need to look exactly like the example!



10 MINUTE BREAK

REVIEW

So far we've learned:

- How to use Classes and IDs to be more specific with our CSS
- Some techniques to make our code DRY
- How to use pseudo-selectors to make our site a bit more interactive
- How to use the CSS Box-model to space things out on our site



Solo Exercise:

CODING 101 FOLDER

[INDEX.HTML](#)



EXERCISE

DIRECTIONS

- Unzip the **Coding 101** folder on your desktop.
- Open up the folder in your text editor
- Start coding!





Solo Exercise:

MAKE YOUR FIRST WEBSITE

PROJECT



EXERCISE

BUILD YOUR FIRST WEBSITE

- Build a Resume or About Me page
- Give your page a `<title>` tag inside of your Head element
- Use at least 10 elements in your Body
- Suggested Elements
- `<h1>` What is the biggest header on your page
- `<h2>` Subheadings
- `<p>` Tell us about yourself
- `` or `` List your experiences
- `` if you want!
- Style these elements using CSS classes and ID's
- Add a unique layout using the box model



A note on Images

You need to make sure that when you are linking to your images in HTML they are the same case as the image files. Meaning ``nameofimage.jpg`` is not the same as ``NameofImage.jpg``. Make sure all folder and file names are the correct cases and try re-uploading!



USING GITHUB PAGES

USING GITHUB PAGES

DEPLOYMENT

REMEMBER

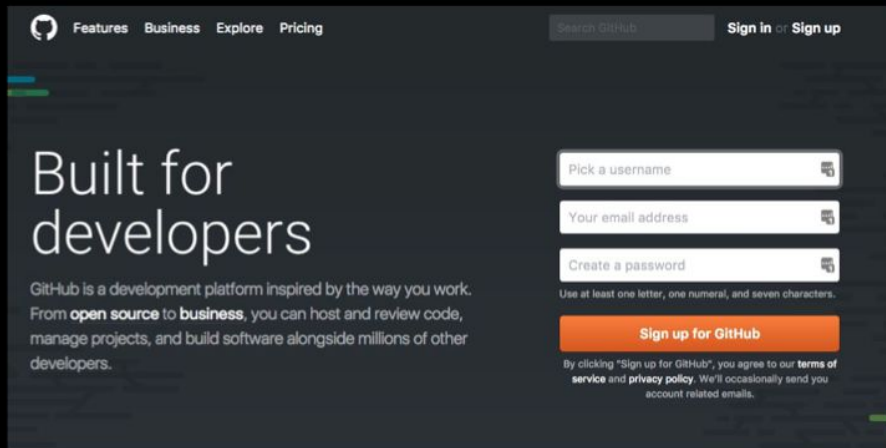
- Use a site like GoDaddy. They will walk you through buying a Domain, hosting your files and uploading your files, step by step
- Today we are going to use a site called Github to host your files.
- Github:
 - An online version control software for code!
 - Saving programming projects online and sharing them with other people.
 - Github has the ability to host static sites. No backend!



DEPLOYMENT

GITHUB ACCOUNT

Let's make a github account

A screenshot of the GitHub website's sign-up page. The page has a dark gray background. At the top, there is a navigation bar with the GitHub logo, links for 'Features', 'Business', 'Explore', and 'Pricing', a search bar labeled 'Search GitHub', and links for 'Sign in' and 'Sign up'. The main content area on the left says 'Built for developers' and describes GitHub as a development platform. On the right, there is a sign-up form with three input fields: 'Pick a username', 'Your email address', and 'Create a password'. Below these fields is a small text requirement: 'Use at least one letter, one numeral, and seven characters.' There is an orange 'Sign up for GitHub' button. At the bottom of the form, there is a disclaimer: 'By clicking "Sign up for GitHub", you agree to our terms of service and privacy policy. We'll occasionally send you account related emails.'

DEPLOYMENT

GITHUB PAGES

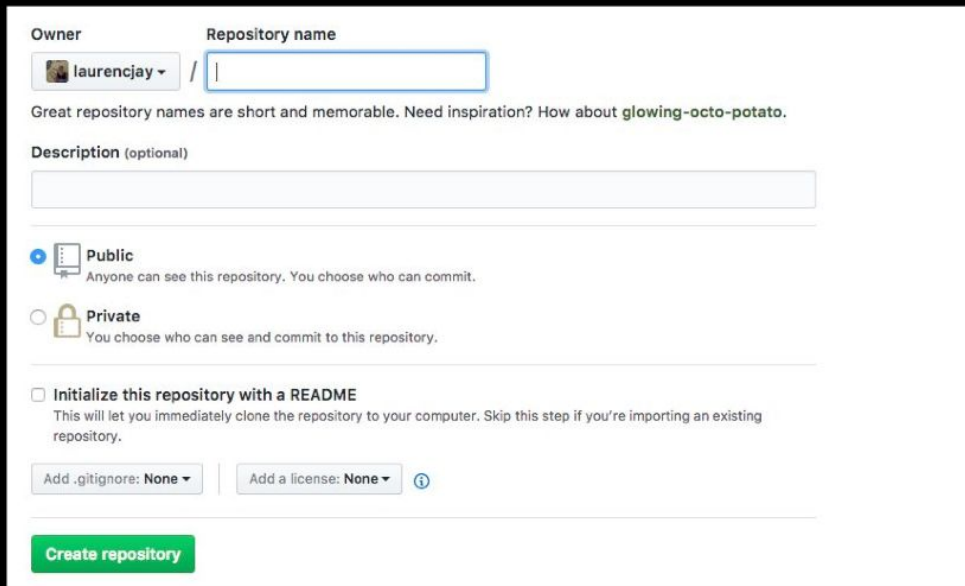
Got to <https://pages.github.com/>
(Reference for you later)

Right now, Create our first repository! (AKA folder)
From your profile page Repositories >> New



DEPLOYMENT

GITHUB PAGES



The screenshot shows the GitHub repository creation interface. At the top, there are two fields: 'Owner' with a dropdown menu showing 'laurencjay' and a 'Repository name' text input field. Below these is a hint: 'Great repository names are short and memorable. Need inspiration? How about glowing-octo-potato.' A 'Description (optional)' text area follows. Then, there are two radio button options for visibility: 'Public' (selected) and 'Private'. Below these is an unchecked checkbox for 'Initialize this repository with a README'. At the bottom, there are two dropdown menus for 'Add .gitignore: None' and 'Add a license: None', followed by a green 'Create repository' button.

Owner: laurencjay / Repository name:

Great repository names are short and memorable. Need inspiration? How about glowing-octo-potato.

Description (optional):

☒ **Public**
Anyone can see this repository. You choose who can commit.

☐ **Private**
You choose who can see and commit to this repository.

☐ **Initialize this repository with a README**
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: None | Add a license: None ⓘ

Create repository

DEPLOYMENT

GITHUB PAGES

The screenshot shows the GitHub interface for the repository `laurencjay / laurencjay.github.io`, which is forked from `barryclark/jekyll-now`. The repository has 1 watch, 0 stars, and 13,943 forks. The main navigation bar includes links for Code, Pull requests (0), Projects (0), Pulse, Graphs, and Settings. Below this, the repository name is displayed with an 'Edit' button. A progress bar shows 338 commits, 1 branch, 2 releases, and 20 contributors. A row of buttons includes 'Branch: master', 'New pull request', 'Create new file', 'Upload files' (circled in red), 'Find file', and 'Clone or download'. Below the buttons, a message states 'This branch is 15 commits ahead, 13 commits behind barryclark:master.' with links for 'Pull request' and 'Compare'. The repository description is 'Customizing posts and my first post' by laurencjay, with the latest commit 9d5750a on Jan 25, 2016.

WRAPPING UP CODING 101 : HTML + CSS

WRAP-UP



INTRO TO CODING : HTML + CSS

HOW TO LEARN THIS AT GA?



PART-TIME:

[FEWD](#) / [JS](#)



FULL-TIME:

[WDI](#)



ONLINE:

[HCD](#) / [JSC](#) / [WDIR](#)

ACTIVITY: AFTER CLASS YOU CAN...



EXERCISE

DIRECTIONS

1. Go to dash.ga.co
2. There are 5 projects available to you that cover what we went over today and more!
3. For further self-learning go to freecodecamp.org



CODING 101 : HTML + CSS

REFERENCE PAGES

Mozilla Developer Network

W3Schools

CSS Tricks

JSDB.io

Site Point



CODING 101 : HTML + CSS

STAYING CURRENT

Smashing Magazine

Sidebar.io

Codrops

Medium

A List Apart

Web Designer Weekly

Creative Bloq

CSS Tricks

Codepen.io



CODING 101 : HTML + CSS

SITE INSPIRATION

Awwwards

Site Inspire

Mediaqueri.es

One Page Love

Little Big Details

The Best Designs

CSS Design Awards

Web Design File

Behance

Dribbble

Responsive Patterns



CODING 101 : HTML + CSS

A COUPLE OF LAST THINGS

You are going to get lots of errors...

Ask questions (but don't be afraid to ask)

[Stack Overflow](#) is great for this stuff!

Get immersed! Coding is hard if you don't get really involved.



CODING 101 : HTML + CSS

Q&A

Email me with any questions: madeline.omoore@generalassemb.ly

THANK YOU!!

