LET'S GET EVERYTHING SET UP!

1. Navigate to the FEWD 42 Dashboard (saraheholden.com/fewd_dashboard/) and download the Lesson 2 starter code and slides. You'll want to keep the dashboard open for other links and resources we'll be referencing in class.
2. Move the starter code and slides from your Downloads folder to the **fewd** folder we added to your Desktop last class.
3. Double-click on starter_code_lesson_2.zip to unzip it
4. After you've unzipped, be sure to delete the original .zip file to avoid confusion and make sure you don't unzip it again later!
5. Open the entire **fewd** folder with Sublime Text (either drag and drop the folder on the Sublime icon in the dock on Mac, or open Sublime and go to file > open… and select starter_code_lesson_2 folder.
6. Log in to the FEWD 42 Slack (fewd42.slack.com) and join the class2 channel.
7. Open the Github desktop app.
8. Navigate to https://github.com/ in Chrome and sign into your Github account. Keep this tab open.

LEARNING OBJECTIVES

- Define a version control system (Git) and explain its benefits
- Connect local repositories to remote repositories using the GitHub app
- Predict image paths and apply relative paths to <img> and <a> tags.
- Differentiate between basic web color principles: RGB, RGBA, hexadecimal color.
- Use CSS to add basic styles to an HTML page.

AGENDA

- Intro to Git and Github
- Review
- More HTML Basics
- Intro to CSS
- Lab

OPEN THE GITHUB APP AND SIGN INTO GITHUB.COM

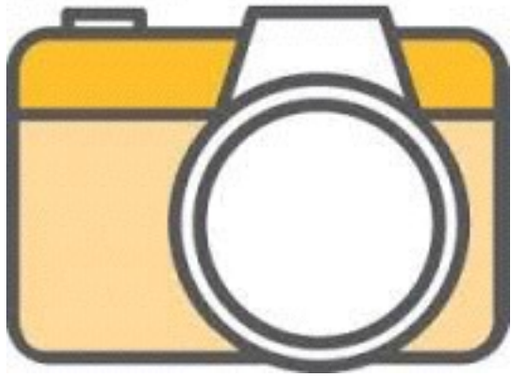
GIT AND GITHUB

KEY VOCABULARY TERMS

WHAT IS GIT?

GIT

- A **version control** program that saves the state of your project's files and folders
- Basically, it takes a "snapshot" of what all your files look like at a moment and stores a reference to that "snapshot"



WHAT IS A REPOSITORY?

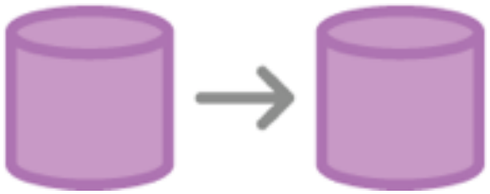
REPOSITORY:

- **Central location** in which data - typically about a project - is stored and managed

GIT WORKFLOW

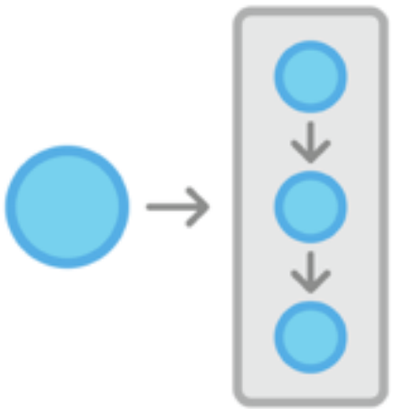
CLONE

- **Download data** from the cloud to your local machine (laptop, computer, etc.)



COMMIT

- **Save a version** of your project to git



WHAT IS GITHUB?

WHAT IS GITHUB?

GITHUB

- **Platform** that makes it easy to manage git repositories.
- Similar to Dropbox or Google Drive, but for code.
- Stores a history of files and the changes that happen within each changed document.
- Hosts files on the cloud so you can share the finished product with other people.
- **Git** - the technology that Github is based on top of - was designed to allow for multiple engineers to work on the same project.

WHY USE GITHUB?

HISTORY

- Since GitHub stores a history of the code, it allows developers to go back in time if something breaks.

COLLABORATION

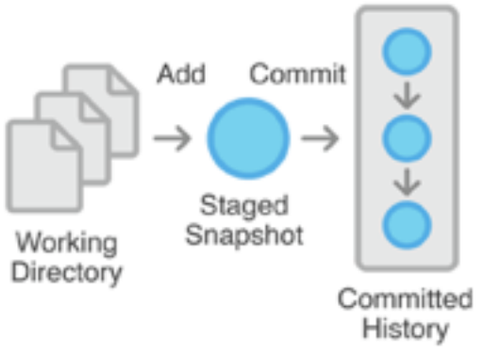
- Allows multiple developers to work on the same project. Much like Google Drive lets multiple people collaborate on the same document, GitHub allows this for code.
- You can see who worked on what.

FEEDBACK

- GitHub allows for feedback to be given on the code which, hopefully, increases code quality.

GITHUB WORKFLOW

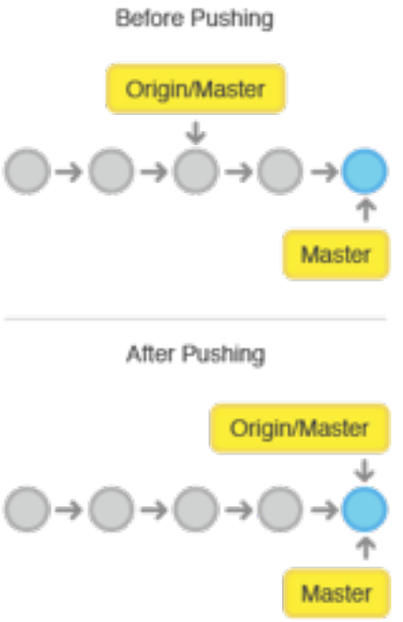
WHAT DOES A TYPICAL WORKFLOW LOOK LIKE?



1. Each GitHub project is called a "repository". Engineers joining a team start by "cloning" the repository (or repo, for short).

2. As developers are working on a project, they "add" and "commit" their changes. This establishes a saved version of a project and creates a history of what they are working on.

3. Developers then "push" their local changes to a remote repository (Github)



ACTIVITY

EXERCISE

KEY OBJECTIVE

Define Git and explain the benefits of using a version control system

TIMING

1 min	1. Turn to partner and discuss
2 min	2. Share with rest of class

LET'S GIVE IT A WHIRL!

CODE ALONG — GITHUB

- Navigate to github.com and sign into your account.
- Click on the green +New Repository button in the right hand panel.
- Name the repository "homework" and click "create repository"
- Click the "Set Up in Desktop" button (which will launch the Github app)
- Select Desktop > fewd as your location and click "Clone"
- Navigate to the Desktop > fewd folder in your finder/explorer
- Open up the starter_code_lesson_2 folder you downloaded at the beginning of class and drag the wendy_bite folder into the homework folder.
- In the github app, enter a commit message (where it says "Summary") and click "Commit to master".
- Click the "publish" button in the upper right corner.
- Navigate back to github.com in Chrome, refresh and make sure your changes appear
- Copy the link to your homework repository and send it in the #homework Slack channel.

CODE ALONG — GITHUB — UPDATING

- In Sublime text open Homework > wendy_bite > index.html
- Add the word "rocks" after Wendy G. Bite.
- Make sure all your changes are saved in Sublime Text
- Open the github app, make sure all files are selected then enter a commit message (where it says "Summary") and click "Commit to master".
- Click the "sync" button in the upper right corner.

HOMEWORK POLICIES

CODE ALONG — GITHUB — UPDATING

- Due Mondays at 11:59pm

GENERAL ASSEMBLY

CSS BASICS

Sarah Holden

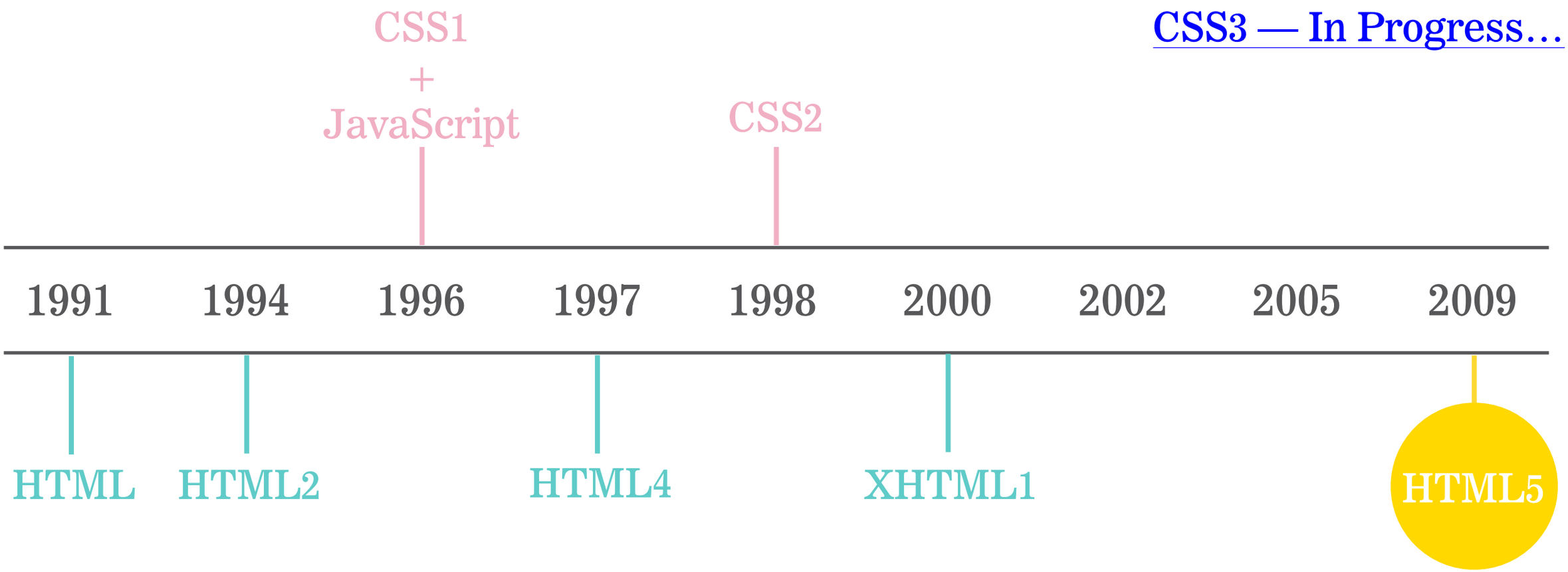
QUESTIONS

EXIT TICKET QUESTIONS

WHEN YOU LINK TO ANOTHER SITE:

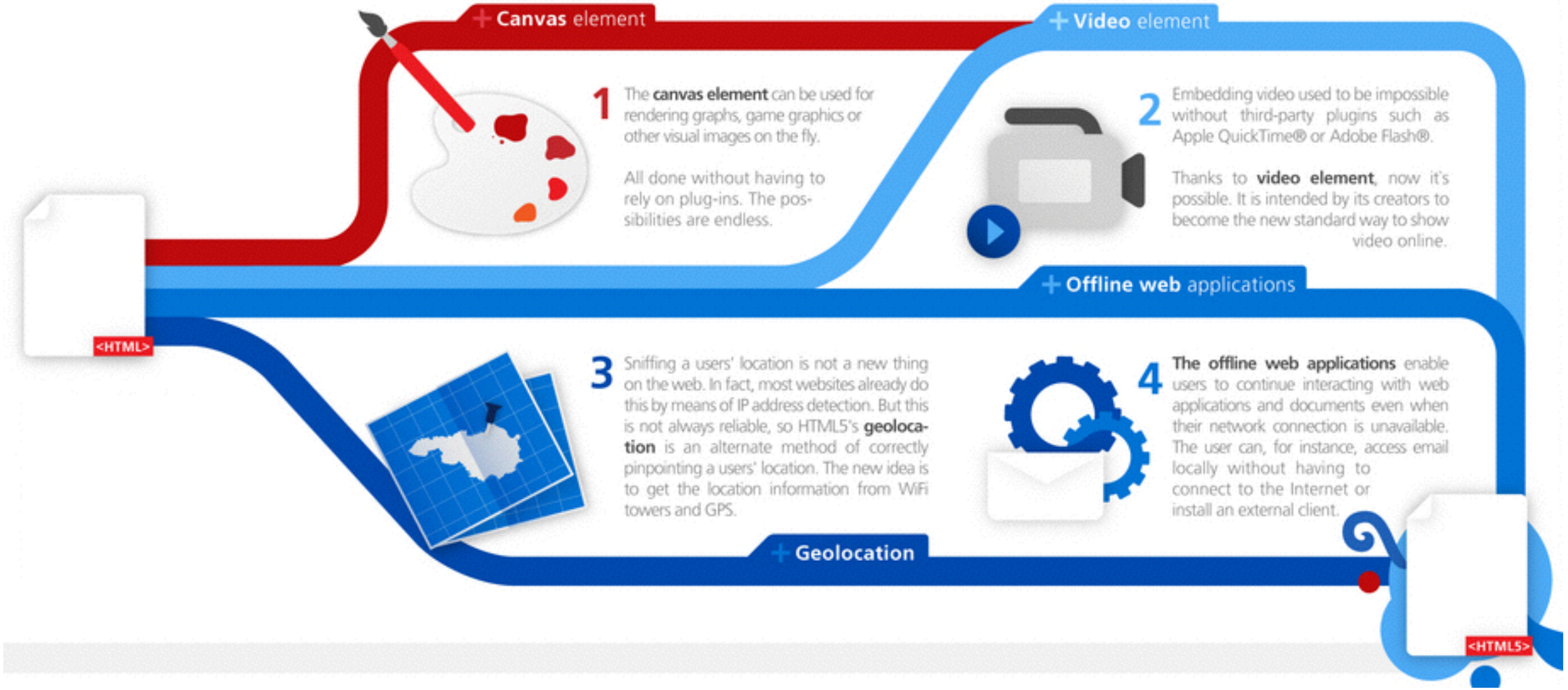
- Are there other versions of HTML other than HTML5?
- Best practices when nesting HTML tags.
- Multiple paragraphs - one <p> tag or multiple <p> tags?
- Other helpful resources for practicing outside of class.
- Sublime shortcuts
- Why use inline tags like in the HTML instead of CSS?
- Prevent autocomplete for tags in Sublime

HTML — A BRIEF HISTORY



HTML5

- HTML5 introduces a number of new elements and attributes.



EXIT TICKET QUESTIONS

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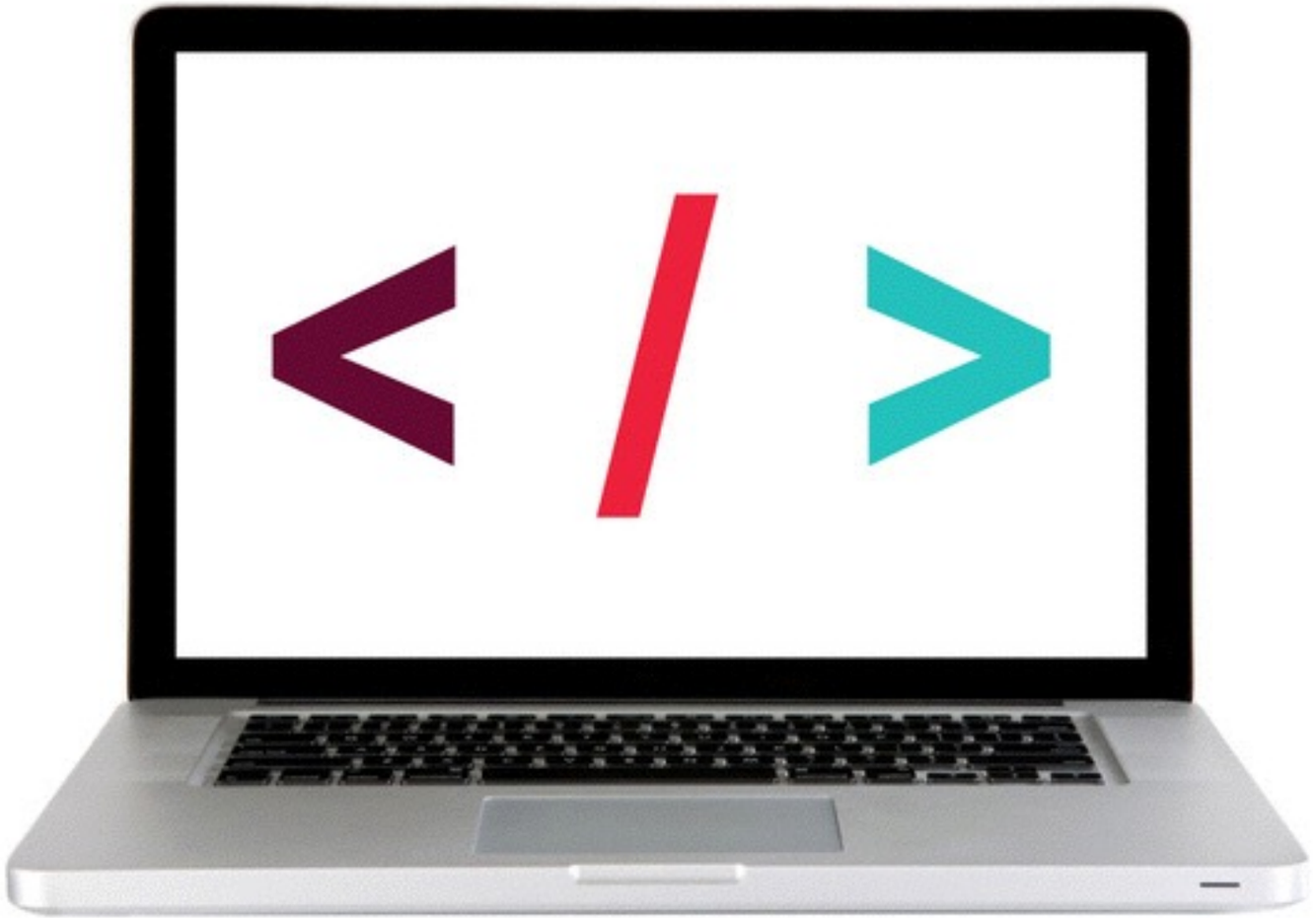
LET'S TAKE A CLOSER LOOK



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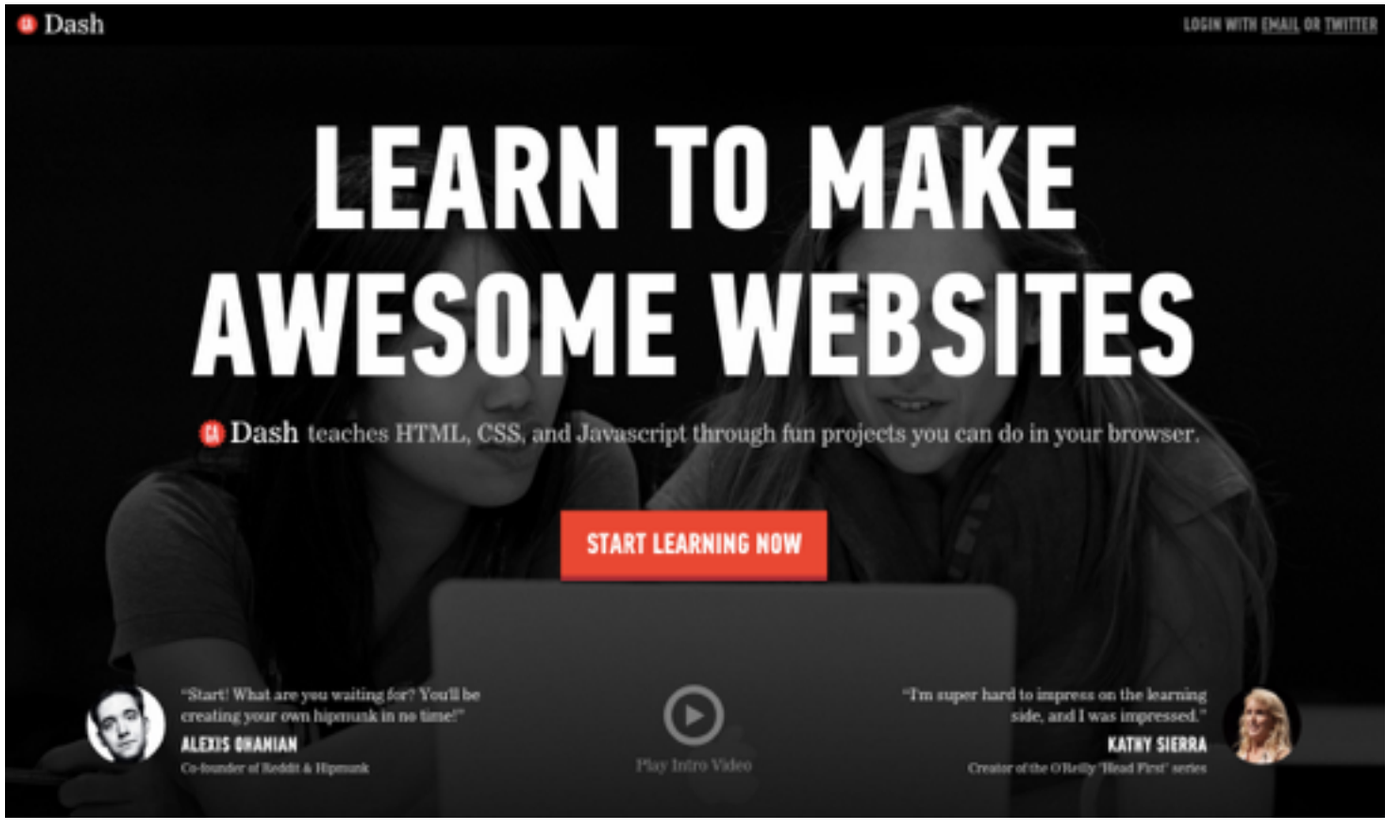
EXIT TICKET QUESTIONS



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EXIT TICKET QUESTIONS

Mac: ⌘ = Command, ⇧ = Shift

PC: ⌘ = Control, ⇧ = Shift

- Comment Selection/Line: ⌘ + /
- Select Next Match of a Selection: ⌘ + D
- Indent selection: Select text then Tab
- Unindent Selection: Select text then ⇧ + Tab
- Multiple Columns: ⌘ + (number of tabs) Example: ⌘ + 2
- Create multiple cursors: ⌘ + click
- Drag to create multiple cursors: alt + hold down mouse/finger and drag

EXIT TICKET QUESTIONS

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- Best practices when nesting HTML tags.
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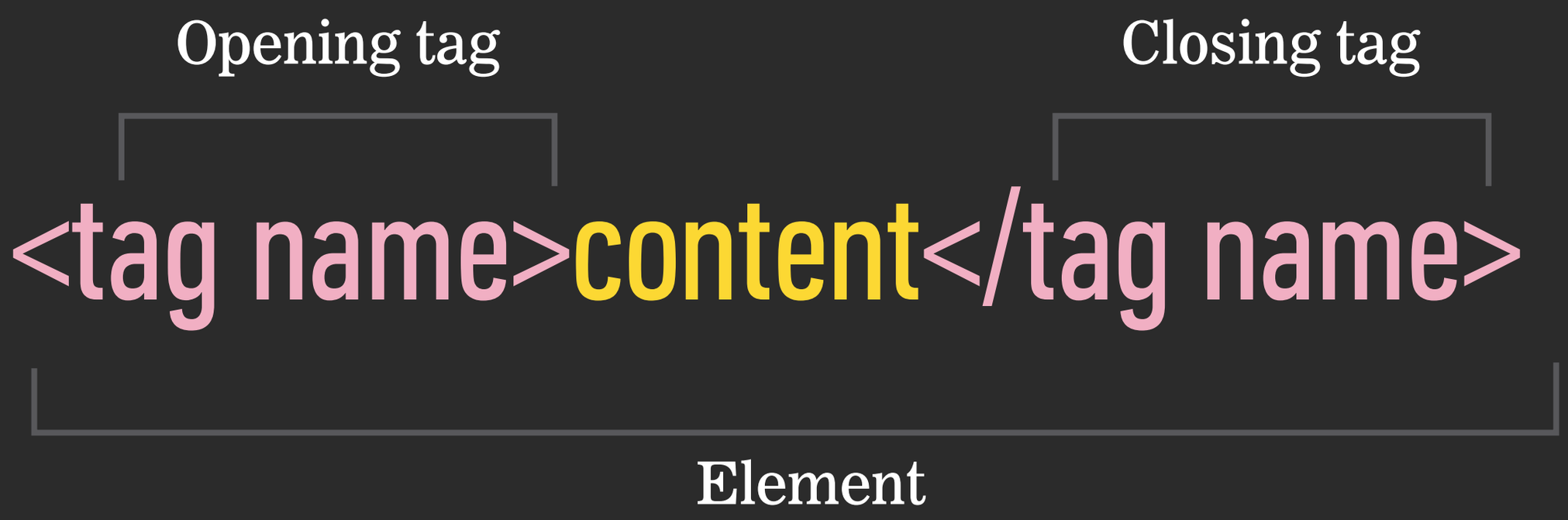
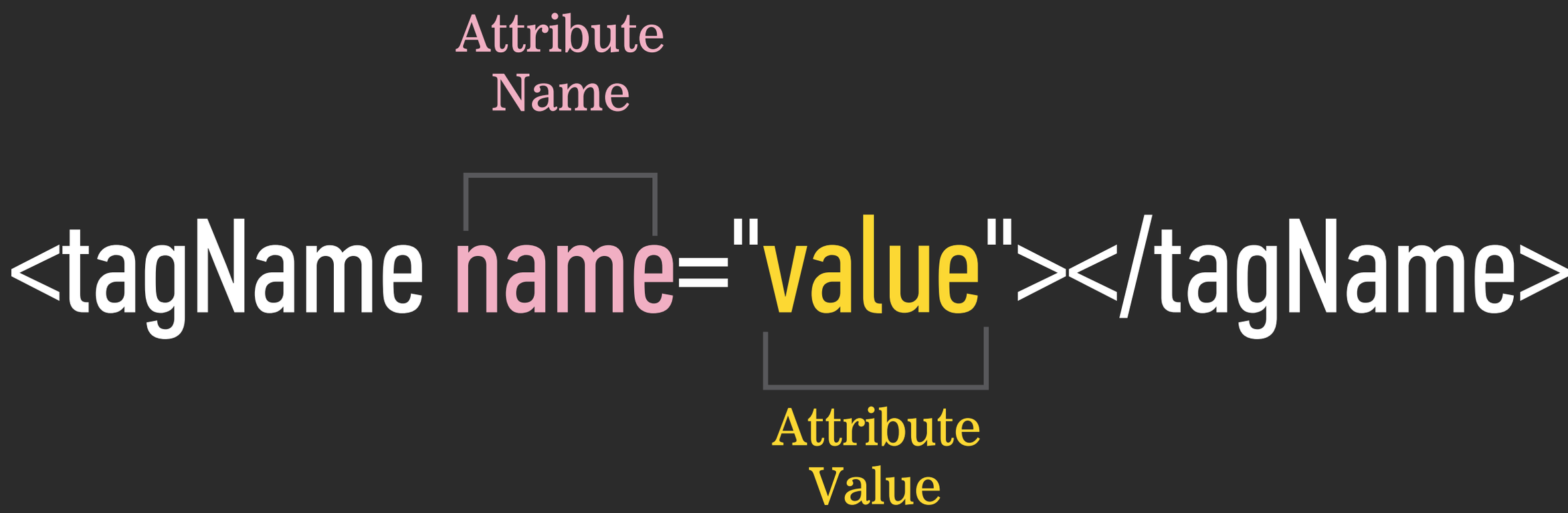
REVIEW

HTML SYNTAX — TAGS



HTML SYNTAX — ATTRIBUTES



ACTIVITY

EXERCISE

KEY OBJECTIVE

- Review HTML Tags

TIMING

15 min

1. Look at review.png in homework > wendy_bite folder.
2. Add markup to the text in homework > wendy_bite > index.html
3. Google and implement <nav> <img> and <hr> tags.

CODE ALONG — GITHUB — UPDATING

- Make sure all your changes are saved in Sublime Text
- In the github app, make sure all files are selected then enter a commit message (where it says "Summary") and click "Commit to master".
- Click the "sync" button in the upper right corner.

NAVIGATION AND HR

- Used to contain a set of navigational links.
- Used to wrap **major navigational blocks**

<nav></nav>

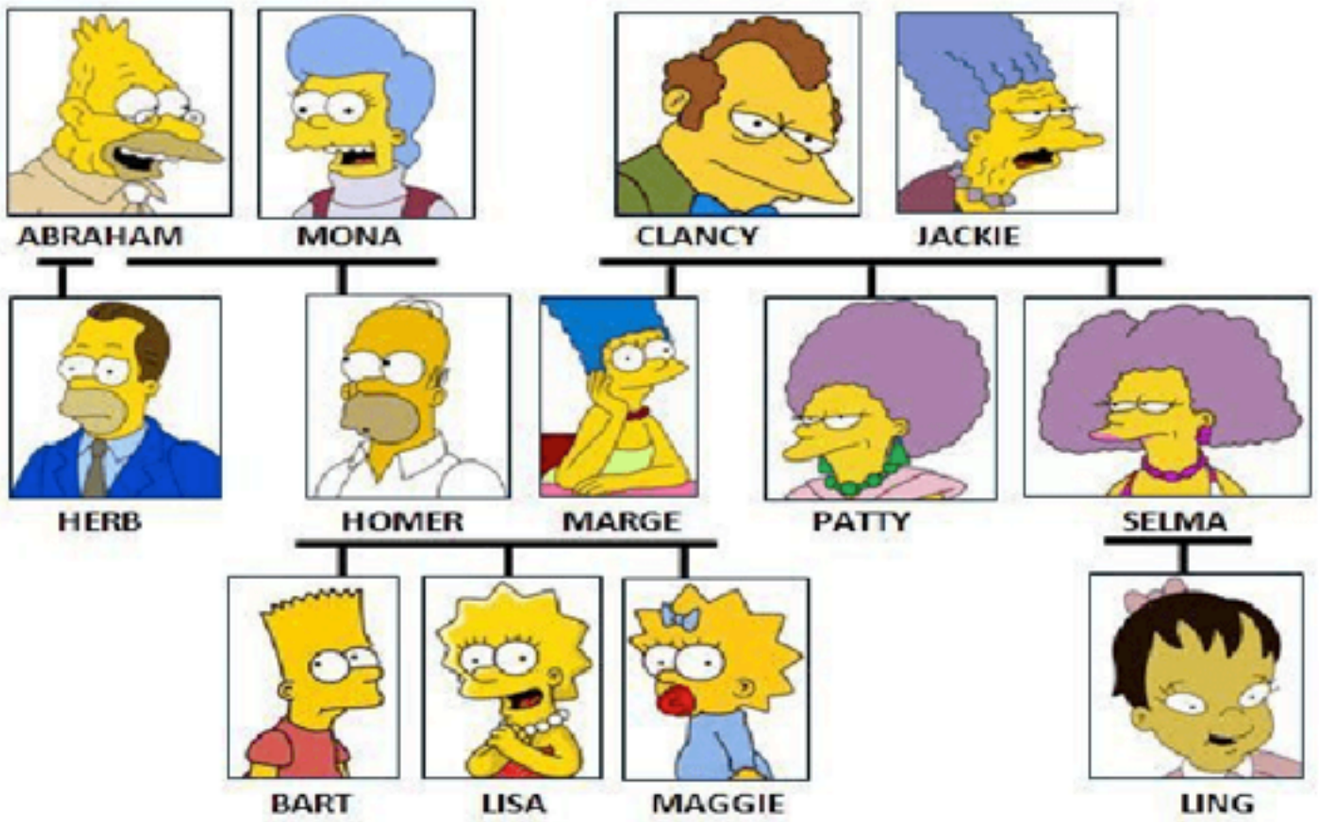
- Used to create a horizontal rule, or line, across the page

<hr>

HTML ENTITY CODES

Use HTML entity codes to add special characters to your HTML.

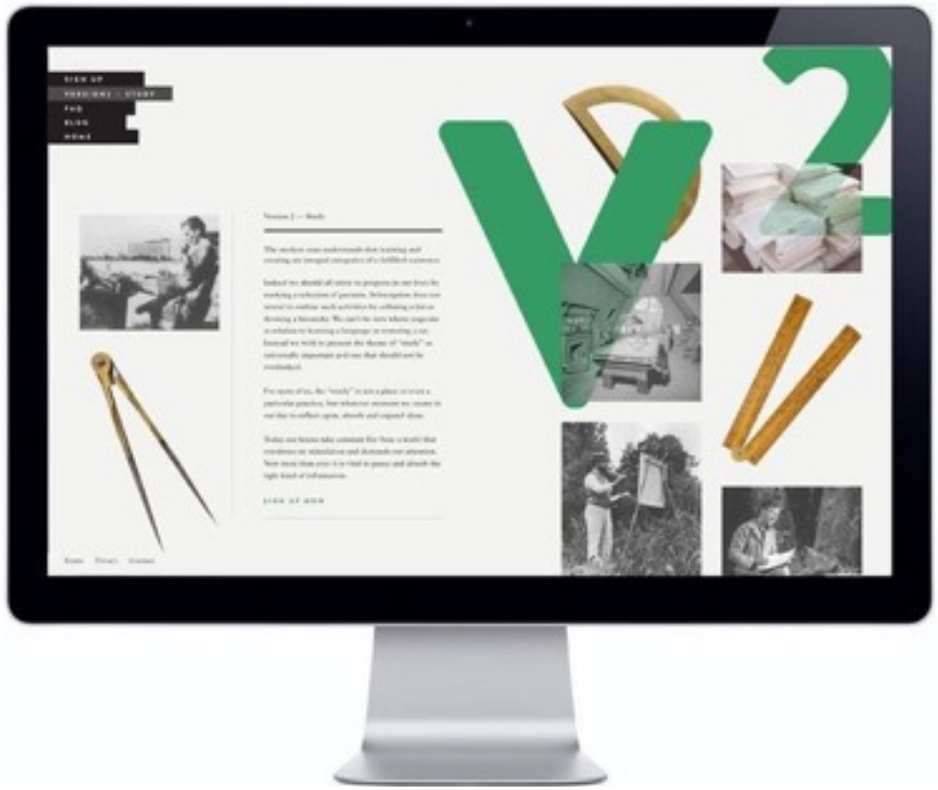
the Simpsons



MORE HTML BASICS

HTML STRUCTURE

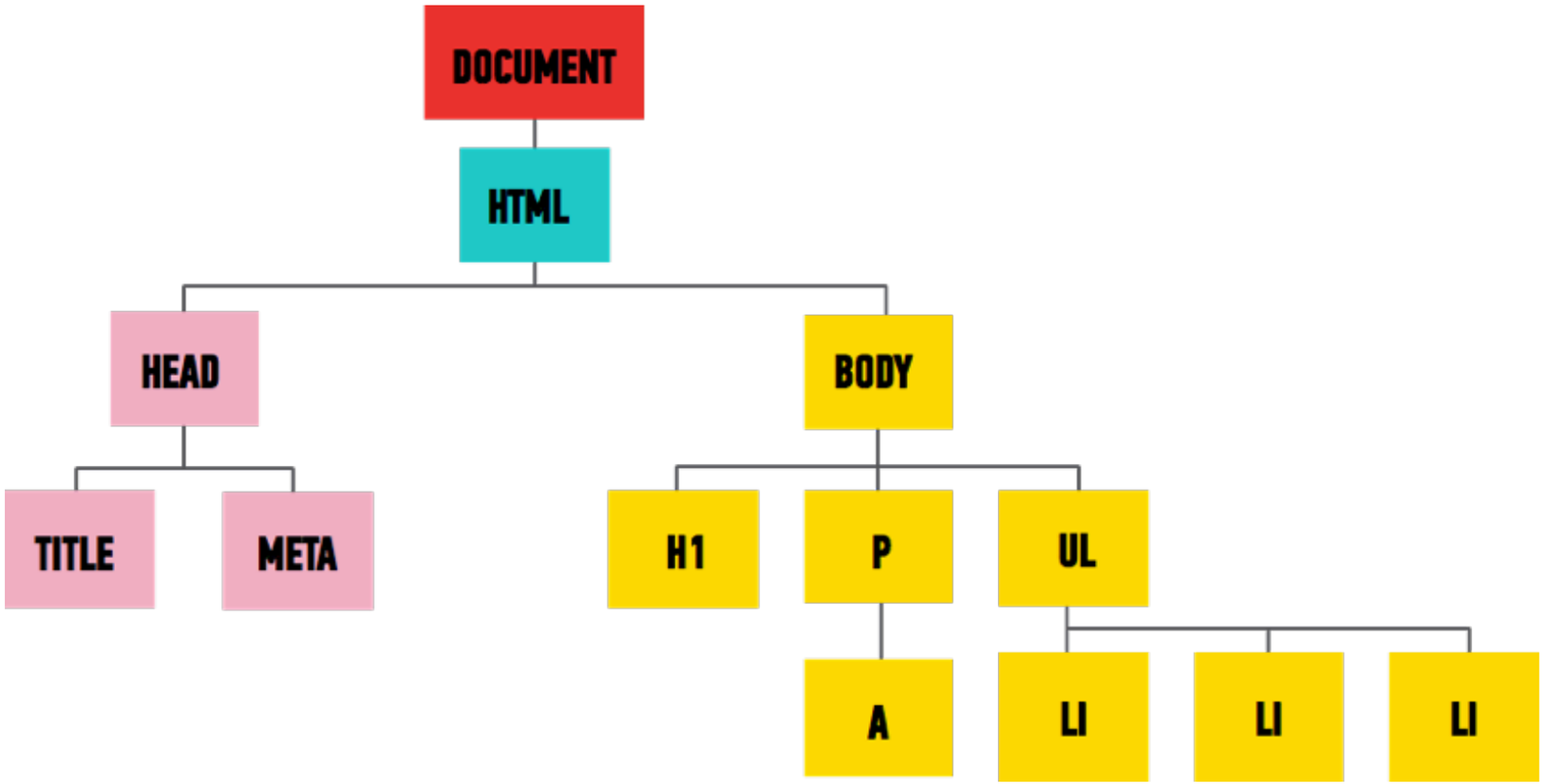
WHAT IS THE DOM?



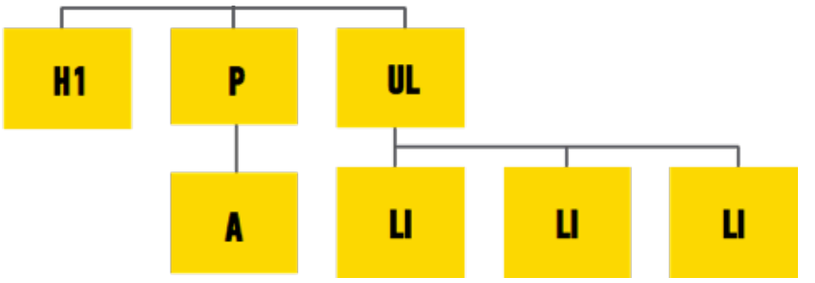
WHAT IS THE DOM?

DOM TREE

- The Document Object Model (DOM) is the model that **describes how all elements in an HTML page, like headers, images, paragraphs etc., are related to the topmost structure: the document itself.**

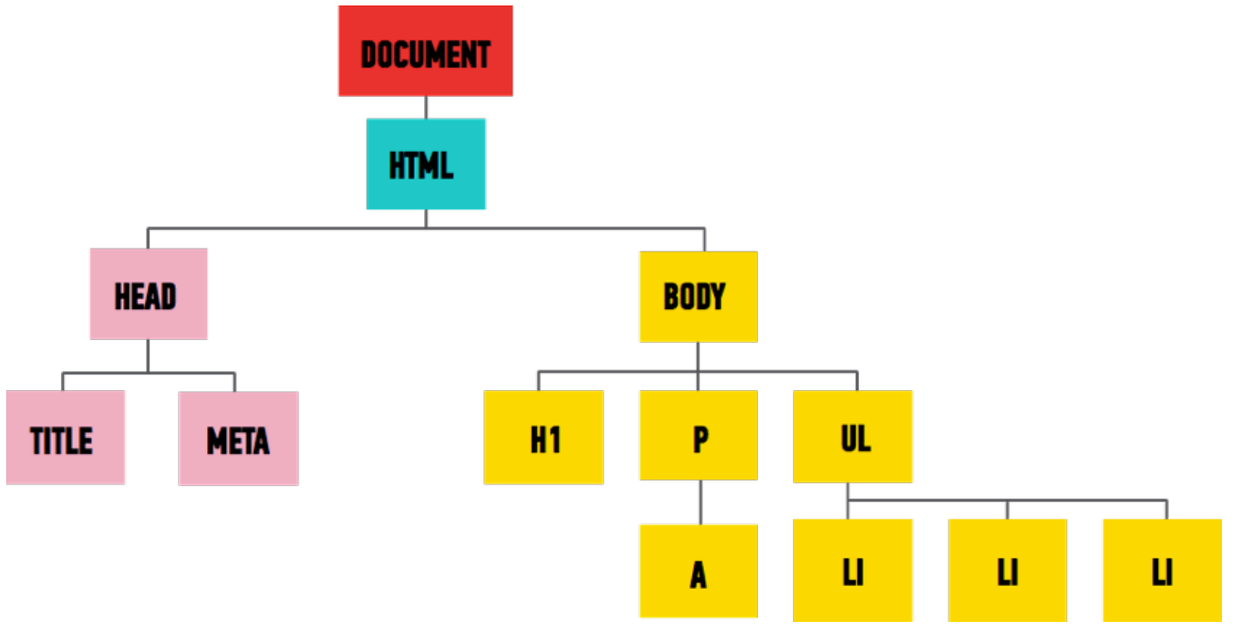


DOM TREE




```
<h1>Site title</h1>
<p>Bacon ipsum dolor amet brisket tail frankfurter cupim pig salami.
Biltong beef ribs ribeye short loin flank corned beef tri-tip beef ball tip
sausage jowl swine. Fatback porchetta strip steak doner chicken <a href="
http://www.jamieoliver.com/recipes/pork-recipes/pork-belly-roast/">pork
belly</a>. Rump picanha jowl ground round, pancetta doner boudin landjaeger
prosciutto meatloaf.</p>
<ul>
  <li>Bacon</li>
  <li>Chicken</li>
  <li>Meatloaf</li>
</ul>
```

HTML STRUCTURE



index.html

```
1  <!DOCTYPE html>
2  <html lang="en">
3    <head>
4      <meta charset="UTF-8">
5      <title>Document</title>
6    </head>
7    <body>
8
9      <h1>Site title</h1>
10     <p>Bacon ipsum dolor amet brisket tail
       frankfurter cupim pig salami. Fatback
       porchetta strip steak doner chicken <a href="
       http://www.jamieoliver.com/recipes/pork-recipes
       /pork-belly-roast/">pork belly</a></p>
11     <ul>
12       <li>Bacon</li>
13       <li>Chicken</li>
14       <li>Meatloaf</li>
15     </ul>
16
17   </body>
18 </html>
```

ACTIVITY

EXERCISE

KEY OBJECTIVE

- Draw out a simple DOM tree

TIMING

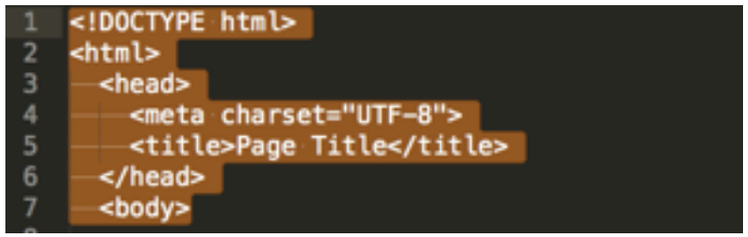
2 min

1. Review starter_code > dom_tree > index.html
2. On the back of your index card, draw out a simple DOM tree for the HTML

CODE ALONG

CODE ALONG

- Open starter_code_lesson_2 > html_structure > index.html
- Open homework> wendy_bite > index.html
- Select lines 1-7 from html_structure > index.html and copy those lines (Command + C)



- Paste those lines on line 1 of wendy_bite > index.html

CODE ALONG

- Select and copy lines 11-12 from html_structure > index.html

```
10
11    </body>
12  </html>
```

- Paste those lines at the very end of wendy_bite > index.html

```
41
42  General Assembly WDI - 2013
43  Queens College B.A. 1923
44  Brooklyn Etiquette School For Girls 1920(Honors)
45
46    </body>
47  </html>
```

- Select everything between the opening and closing <body> tags and hit tab to indent.

HTML STRUCTURE

IMAGES

IMAGES – THE IMG ELEMENT

Images are added to the page with the img element

- **Void element** — Doesn't need a closing tag
- Two *required* attributes — src and alt

```
<img src="images/camera.jpg" alt="Girl holding a camera" />
```

IMAGES

The **src** attribute tells the browser where it can find an image.

Path to the image file

```
<img src="images/camera.jpg" alt="Girl holding a camera" />
```

IMAGES

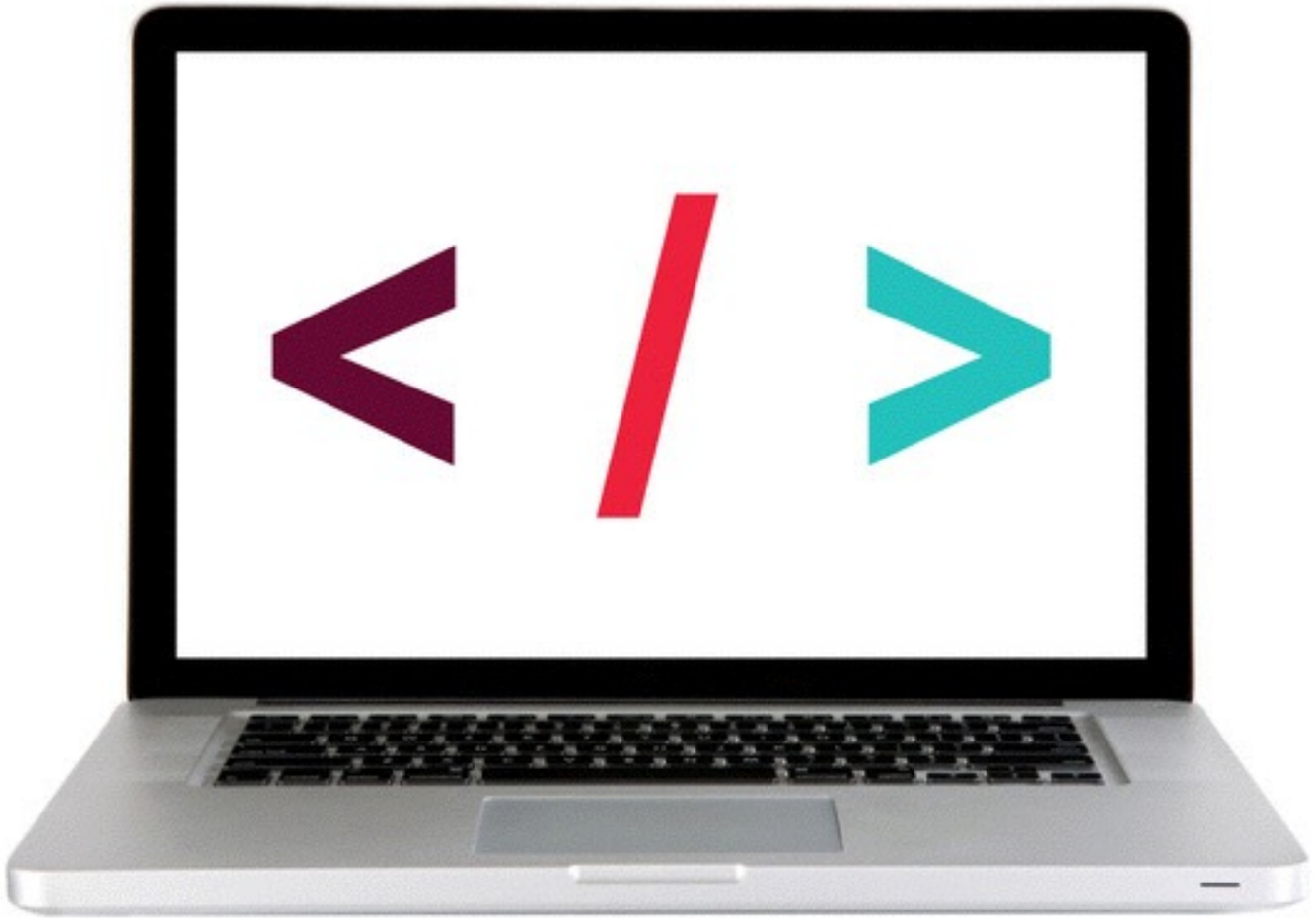
The **alt** attribute provides a text description of the image that:

- Replaces the image if it doesn't load
- Is used by screen readers

Text description

```
<img src="images/camera.jpg" alt="Girl holding a camera" />
```

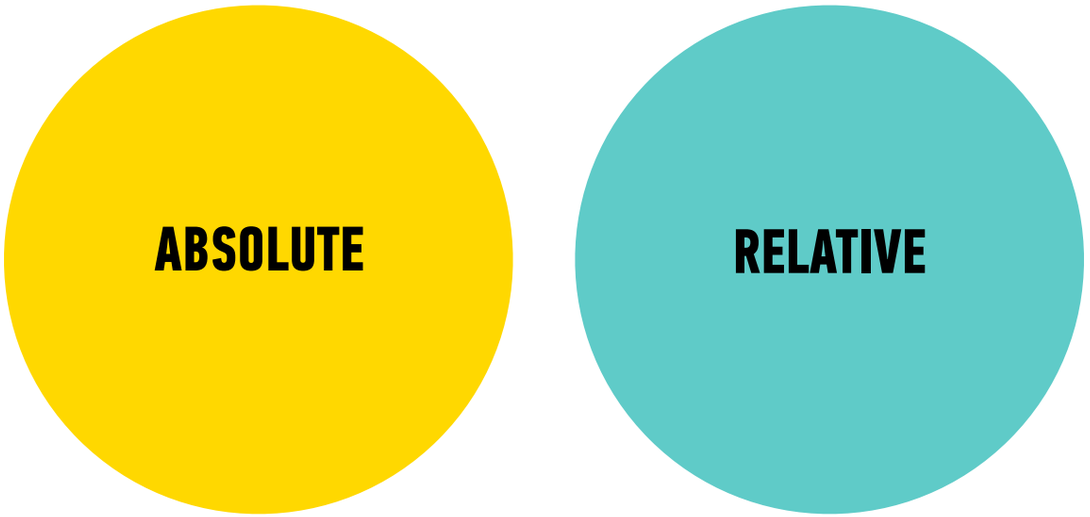
LET'S TAKE A CLOSER LOOK



URLS

TYPES OF URLS

- There are two main types of URLs:



LINKING TO OTHER SITES – ABSOLUTE URLS

ABSOLUTE

WHEN YOU LINK TO ANOTHER SITE:

- Value of the href attribute will be the *full web address* for the site
- This is known as the **absolute** URL.

Absolute URL

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

<img src="http://saraheholden.com/img/aboutPhoto.jpg" alt="Profile Pic>
```

LINKING TO OTHER PAGES ON THE SAME SITE — RELATIVE URLS

RELATIVE

WHEN YOU LINK TO ANOTHER PAGE OR FILE ON THE SAME SITE:

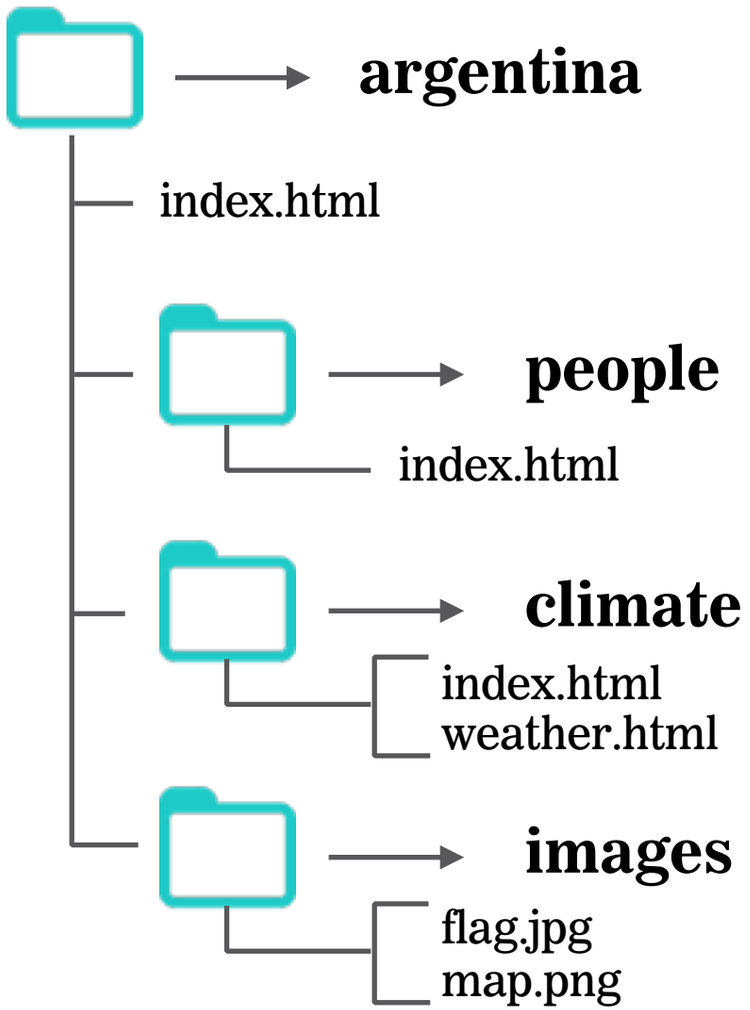
- You don't need to specify a domain name in the URL.
- Use **Relative URL:** indicates where pages are *in relation to the current page*

Relative URL

```
<a href="about.html">About Page</a>

<img scr="images/logo.png" alt="logo">
```

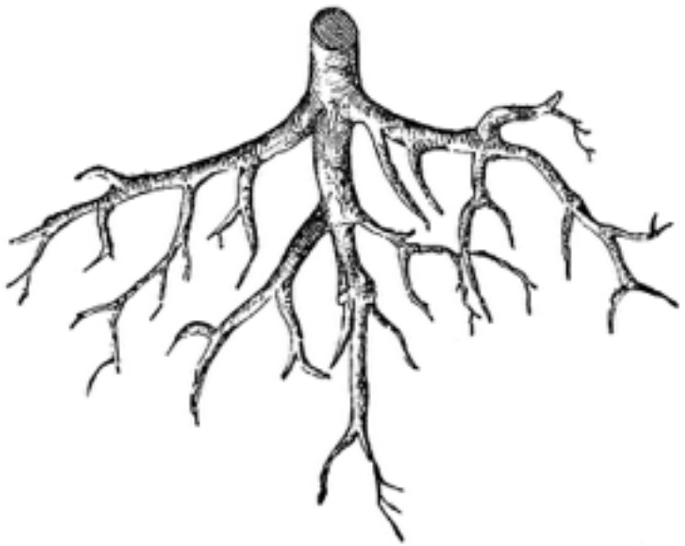
DIRECTORY STRUCTURE

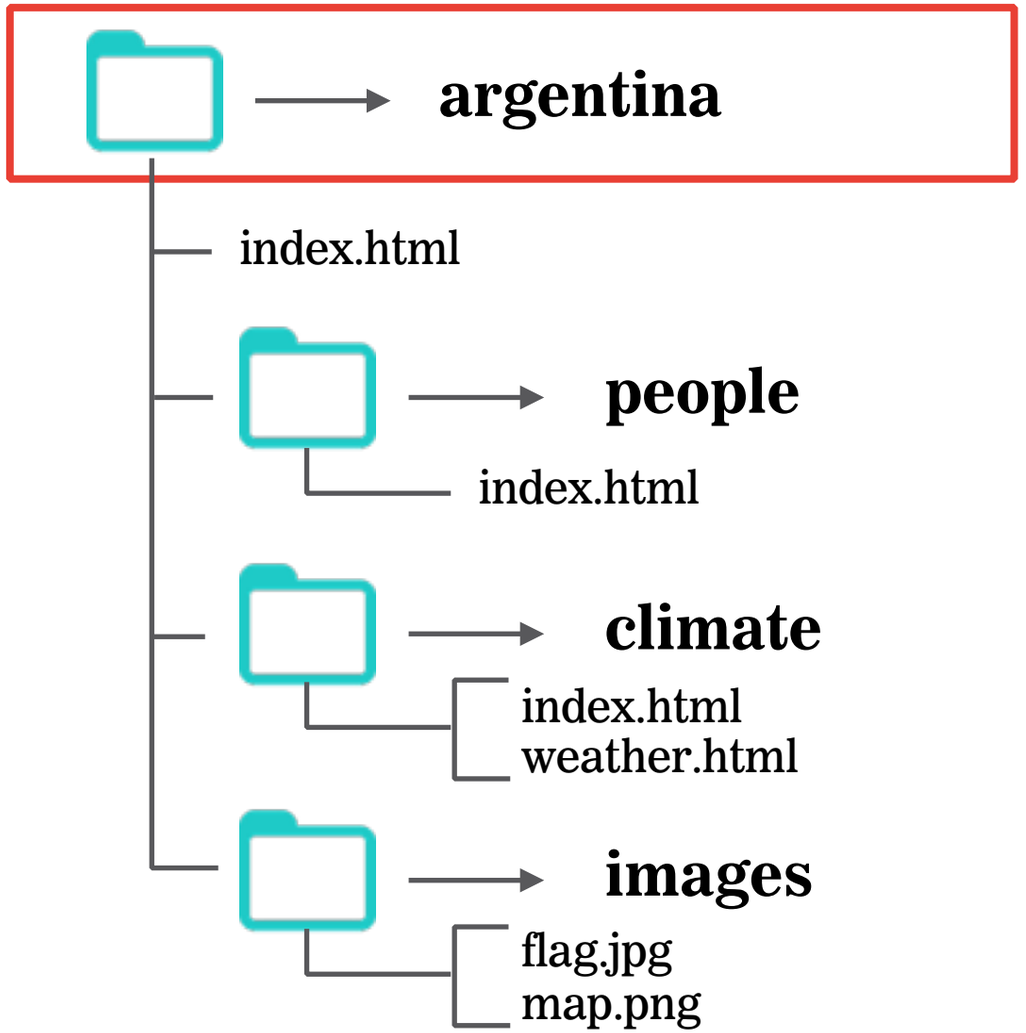
- On larger sites, it's *best practice* to organize code by placing the files for each major section of the site into a new folder
- These folders are often referred to as **directories**.



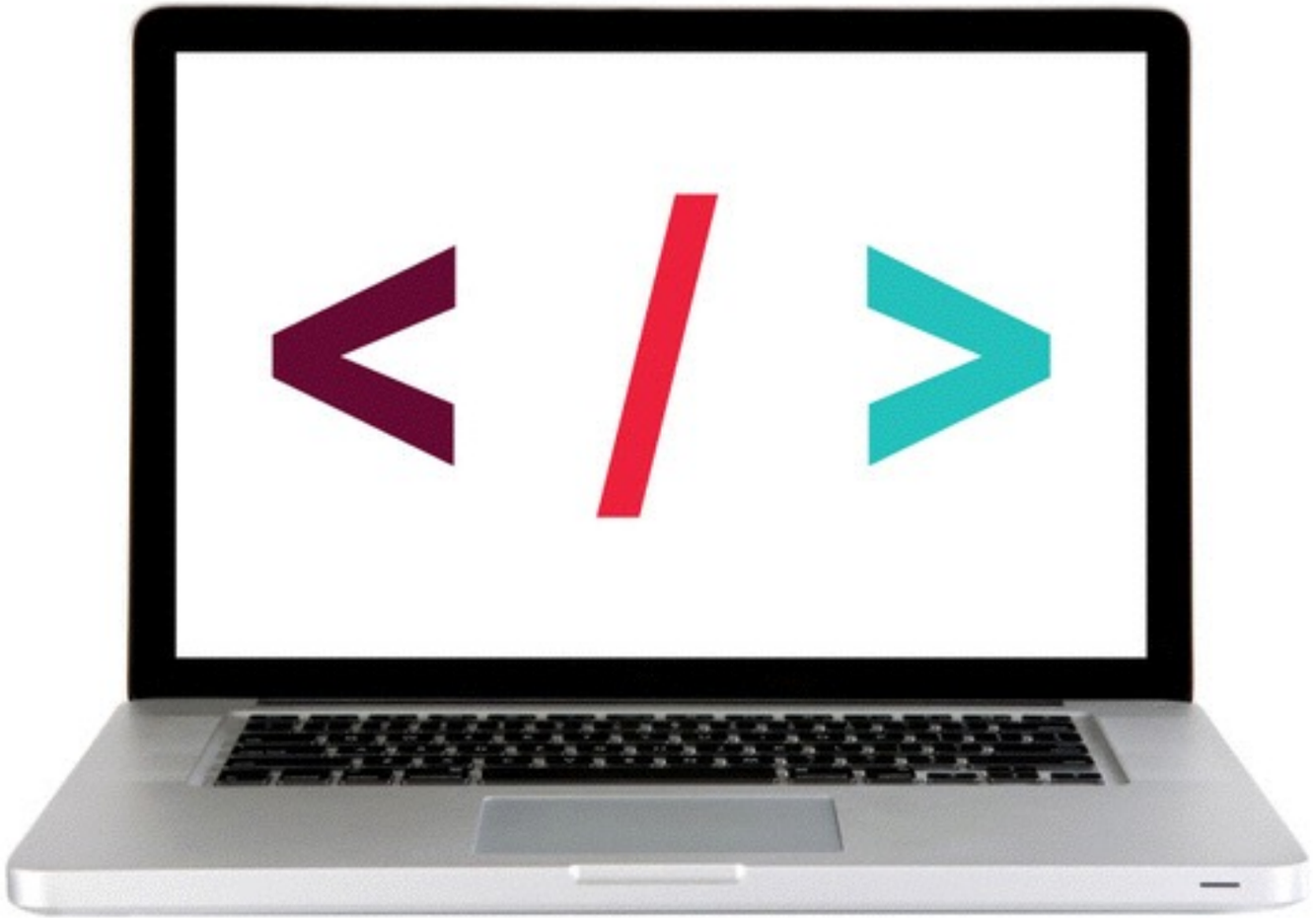
DIRECTORY STRUCTURE — ROOT

- The topmost folder is called the **root** folder. It contains all other files and folders for a website.





LET'S TAKE A CLOSER LOOK



DIRECTORY STRUCTURE

- Relationships between folders can be described using similar language to that of a family tree

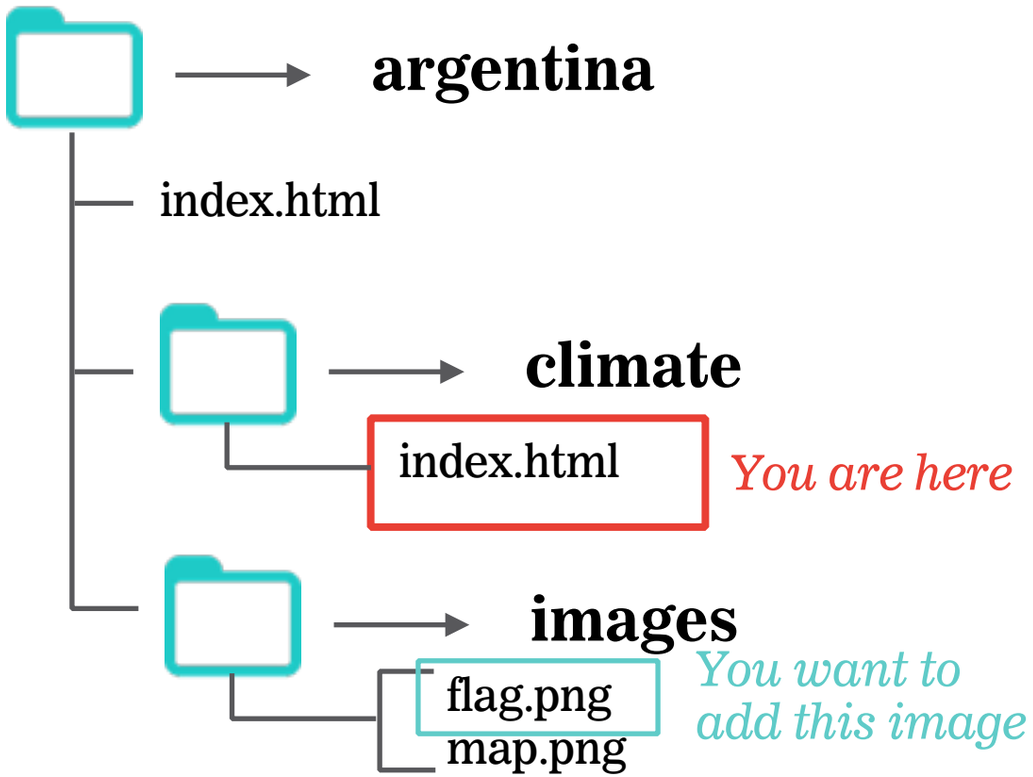
RELATIVE URLS

FOLDER FILE IS IN:	DESCRIPTION	EXAMPLE
SAME	File name	info.html
CHILD	Name of child folder + / + file name	people/index.html
GRANDCHILD	Name of child folder + / + Name of grandchild folder + / + file name	people/culture/index.html
PARENT	../ + path	../index.html
GRANDPARENT	../../ + path	../../index.html

Note that ../ means to go up one directory, and can be used repeatedly:
../../ would go up two directories.

RELATIVE URLS

1. First we use ../ to go back to the parent directory
2. Then we add the path to the image



img src="../images/flag.png" alt="Flag">

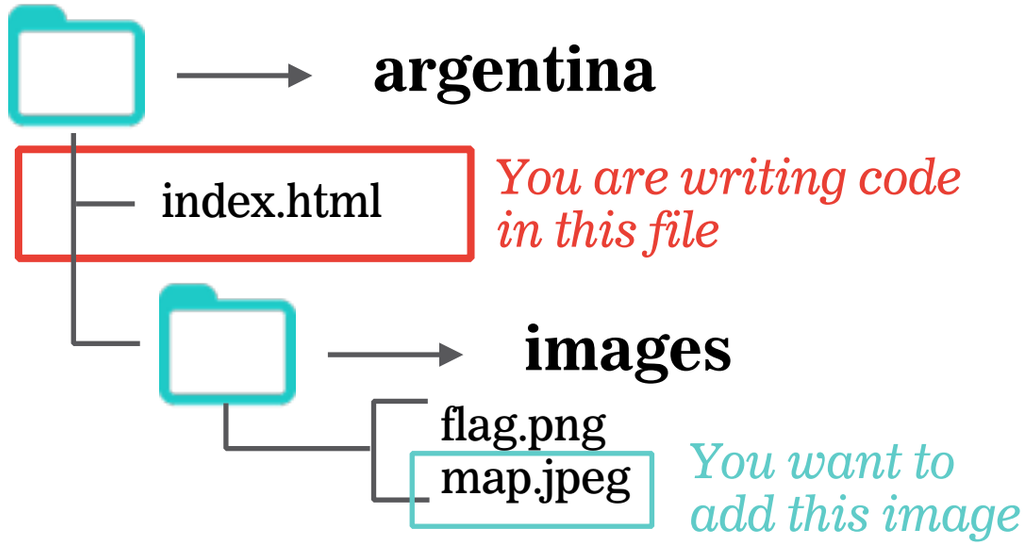
ACTIVITY

KEY OBJECTIVE

- Practice writing absolute and relative paths

ACTIVITY

- We want to add the image map.jpeg to our homepage (index.html)
- Write out the image tag (include src and alt attributes)

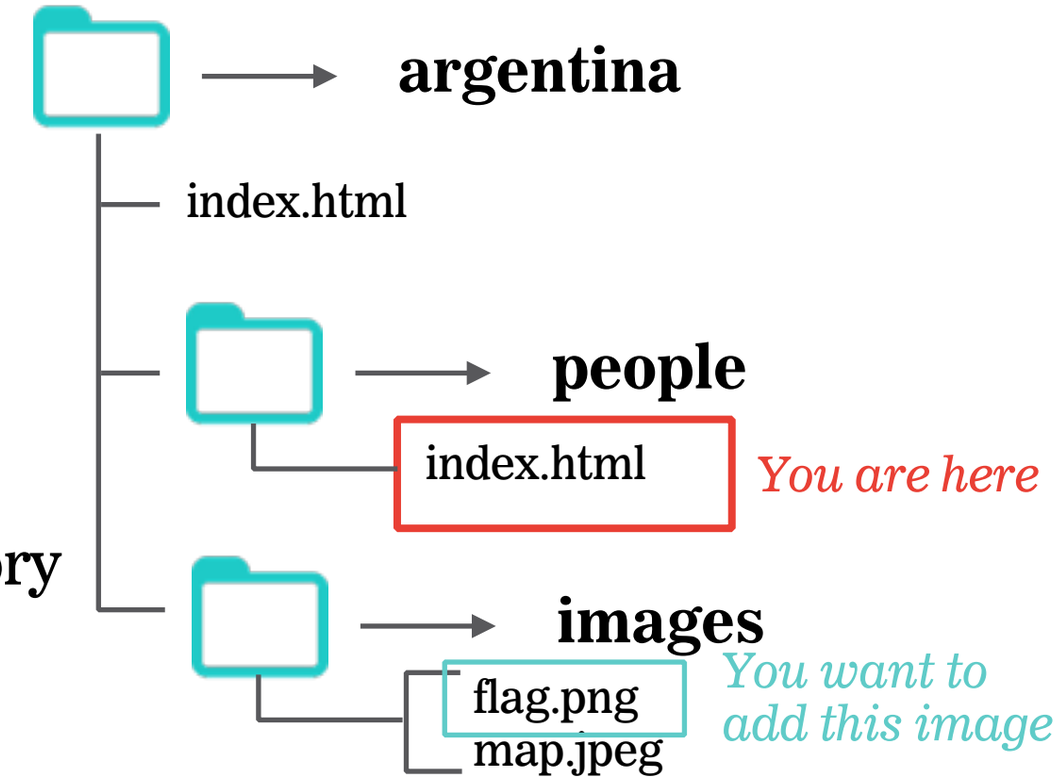


Answer: <img src="images/map.jpeg" alt="Map">

	DESCRIPTION	PATH
CHILD	Name of child folder + / + file name	images/map.jpeg

ACTIVITY

- We want to add flag.png to the homepage of the "people" section of our site.
- Write out the image tag (include src and alt attributes)



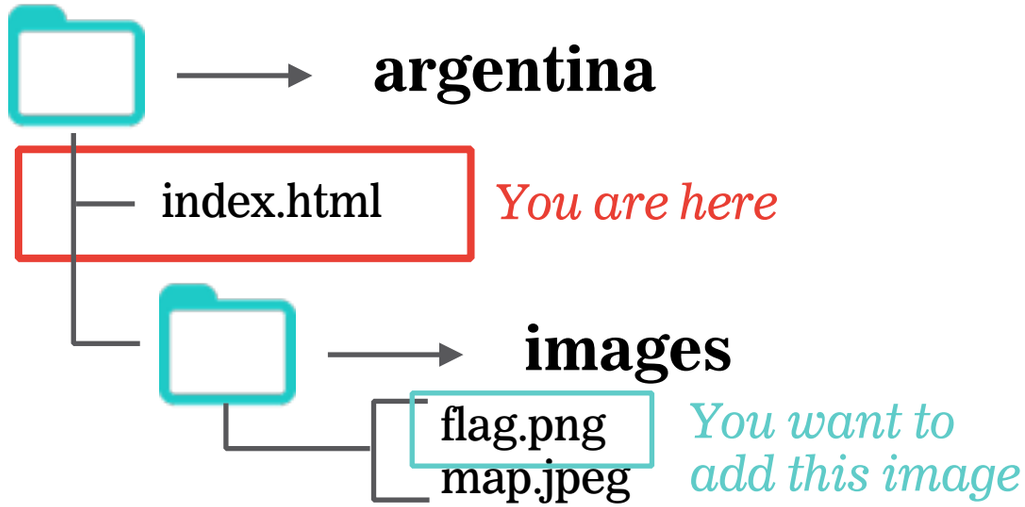
HINT:

1. First we use ../ to go back to the parent directory
2. Then we add a path to the image

img src="../images/flag.png" alt="Flag">

ACTIVITY

- We want to add the image flag.png to our homepage (index.html)
- Write out the image tag (include src and alt attributes)



<img src="images/flag.png" alt="Flag">

ACTIVITY

- We want to add a link from our homepage (index.html) to our about page (about.html)
- Write out the anchor tag (including href attribute)

<a href="about.html">About Page</a>

PLEASE TAKE A FEW MOMENTS TO FILL OUT YOUR SLACK PROFILE WITH A PICTURE AND A LITTLE BIT ABOUT YOURSELF

INTRO TO CSS

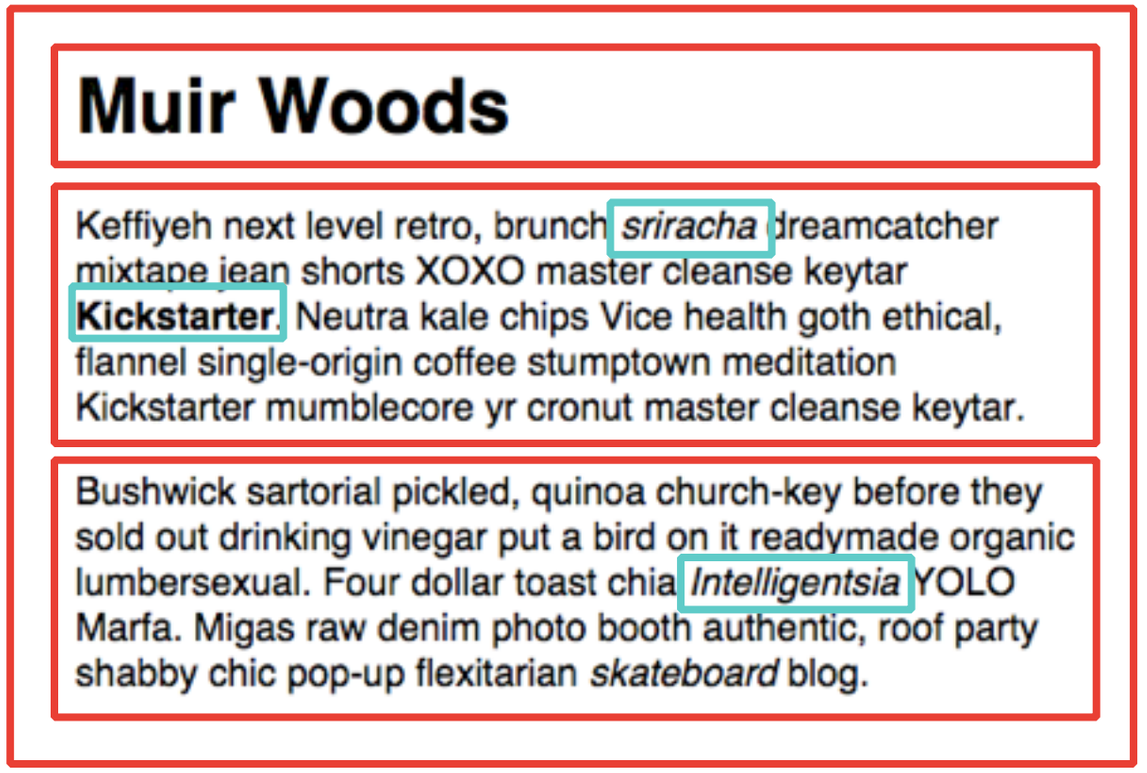
THE BASICS

WHAT IS CSS?

Muir Woods

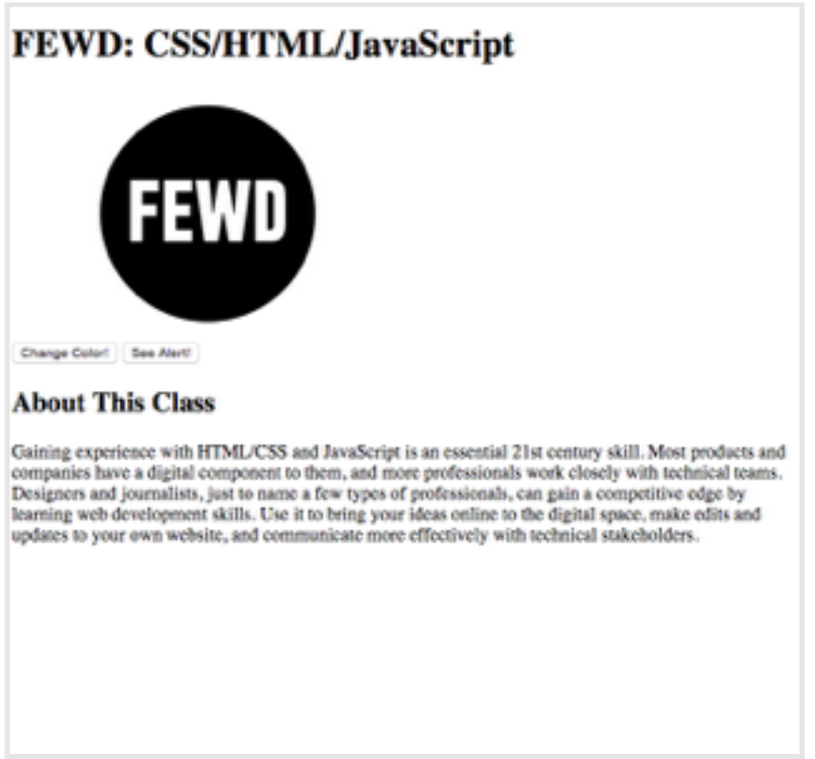
Keffiyeh next level retro, brunch *sriracha* dreamcatcher mixtape jean shorts XOXO master cleanse keytar **Kickstarter**. Neutra kale chips Vice health goth ethical, flannel single-origin coffee stumptown meditation Kickstarter mumblecore yr cronut master cleanse keytar.

Bushwick sartorial pickled, quinoa church-key before they sold out drinking vinegar put a bird on it readymade organic lumbersexual. Four dollar toast chia *Intelligentsia* YOLO Marfa. Migas raw denim photo booth authentic, roof party shabby chic pop-up flexitarian *skateboard* blog.



WHAT IS CSS?

- CSS is what handles the presentation layer of our webpage.
- CSS allows us to associate style rules with HTML elements.



plain ol' HTML

HTML + CSS

CSS SYNTAX

CSS SYNTAX

```
h1, h2 {
        color: yellow;
        font-size: 16px;
}
```

Property

Value

USING INTERNAL CSS — :(

- You can include CSS rules by placing them inside a <style> element, which usually sits inside the <head>.

```
<head>
  <meta charset="UTF-8">
  <title>Visit Big Sur</title>

  <style>
    h1 {
      color: yellow;
    }
  </style>

</head>
```

USING EXTERNAL CSS — :)

- Use the <link> element to tell the browser where to find the CSS file that should be used to style the page.
- This should live inside the <head> of the document.

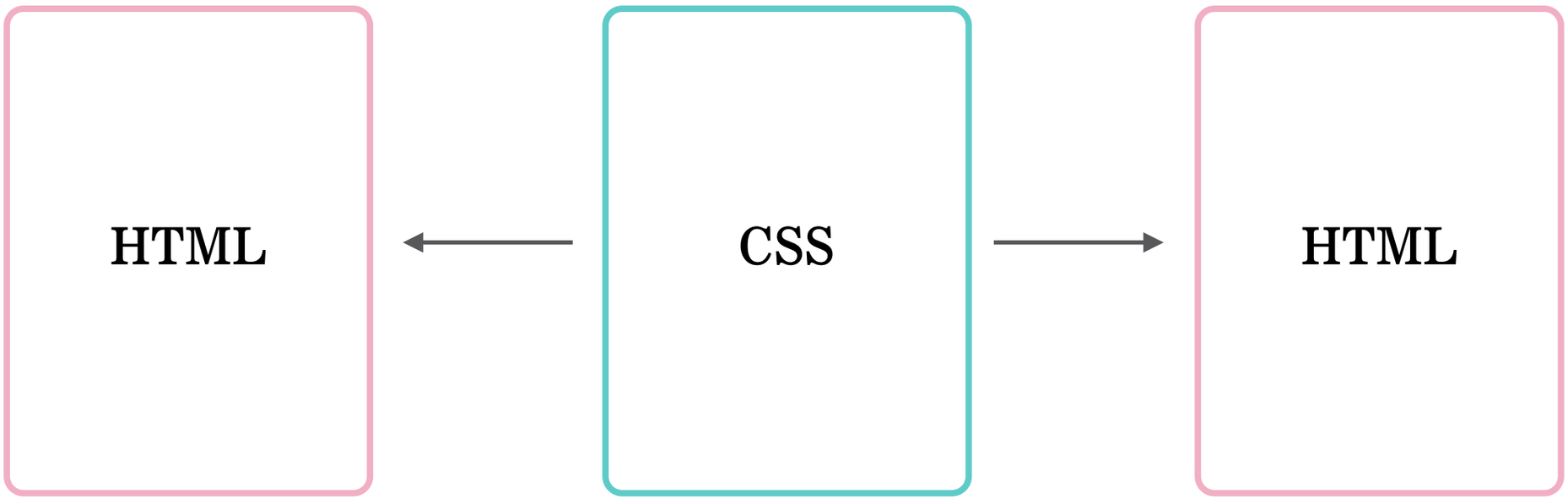
```
<head>
  <meta charset="UTF-8">
  <title>Document</title>
  <link rel="stylesheet" href="css/style.css">
</head>
```

- The **href** specifies the path to the CSS file.
- The **rel** attribute specifies the relationship between the HTML page and the file it is linked to.

INTERNAL VS. EXTERNAL CSS

BENEFITS OF USING AN EXTERNAL STYLESHEET:

- Multiple pages can use same stylesheet (Don't repeat yourself!)
- Only have to make changes in one file
- Keep content separate from presentation



CODE ALONG — CSS PRACTICE

COLOR

COLOR

TEXT COLOR:

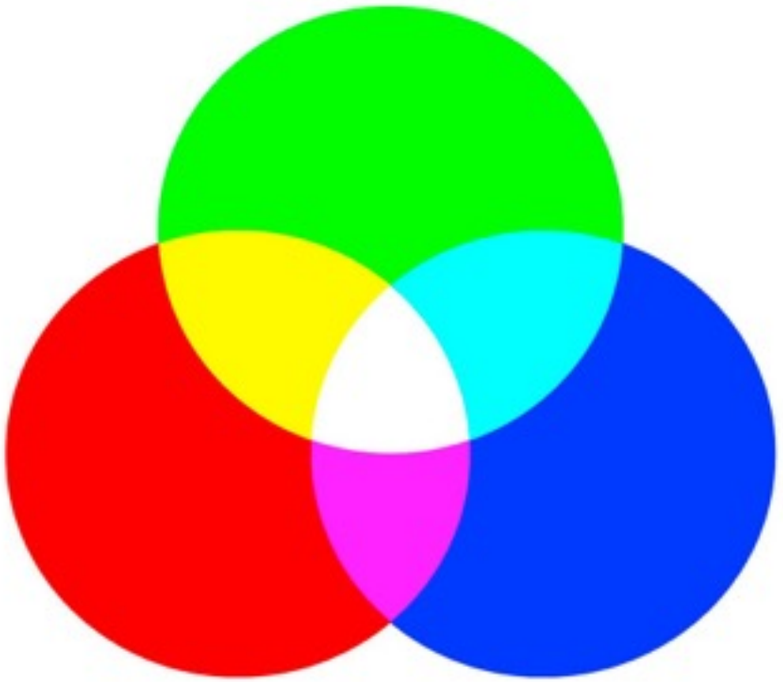
```
h1 {
  color: blue;
}

p {
  color: red;
}
```

BACKGROUND COLOR:

```
body {
  background-color: blue;
}
```

COLOR

- Every color on a computer screen is created by mixing amounts of red, green, and blue
- To find the color you want, you can use a color picker
- Mac: Sip (free)
- Windows: Just Color Pic (free)
- Photoshop



COLOR

RGB VALUES

- Values for red, green and blue are expressed as numbers between 0 and 255

rgb(72, 209, 204)

HEX CODES

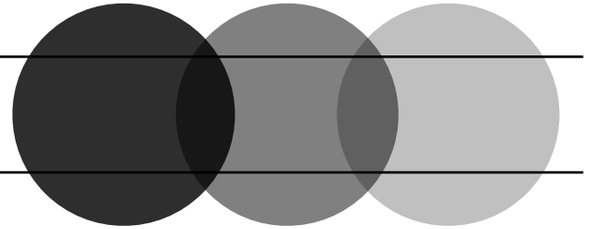
- Represent values for red, green and blue in hexadecimal (base 16) code

#48D1CC

COLOR NAMES

- Colors are represented by predefined names. They are not used very much but are helpful for basic colors such as black and white. Full list of color names

MediumTurquoise



RGBA

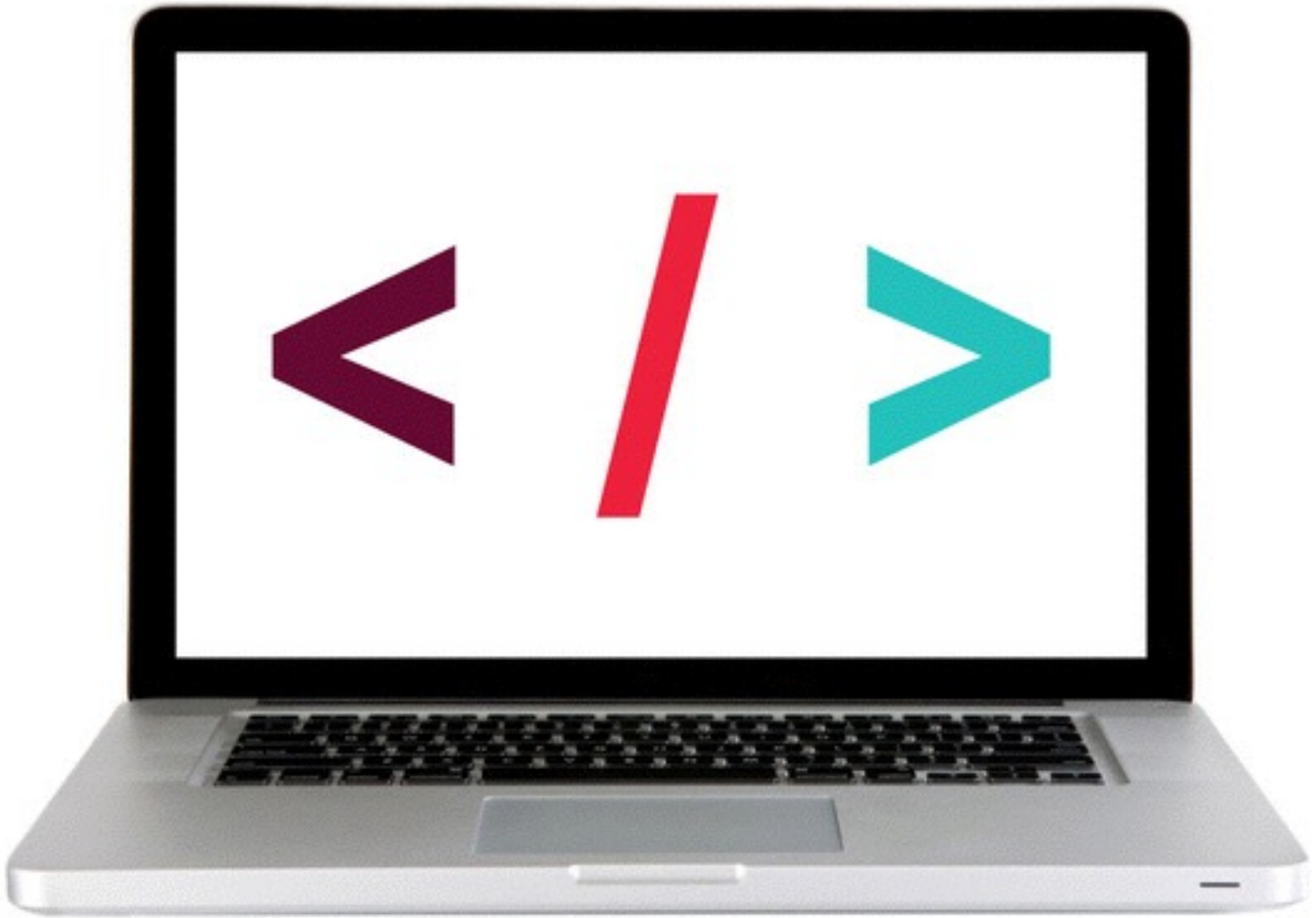
- RGBA works the same as RGB, except that it takes a 4th value called 'alpha'.
- This is a value between 0 and 1 which can be used to determine a color's opacity on the page.

`rgba(0, 0, 0, 1)`

`rgba(0, 0, 0, 0.5)`

`rgba(0, 0, 0, 0.25)`

LET'S TAKE A CLOSER LOOK



ACTIVITY

EXERCISE

KEY OBJECTIVE

- Use CSS to add basic styles to an HTML page.

TIMING

3 min

1. (together) Add a link to the style.css file
2. Open starter_code > css_practice > index.html
3. Follow the instructions under Part 1

TYPE

TYPEFACE TERMINOLOGY

TEXT-ALIGN

left
center
right
justify

TEXT-TRANSFORM

UPPERCASE
lowercase
Capitalize

TEXT-DECORATION

none
underline

LINE-HEIGHT

20px

FONT-WEIGHT

Normal
Bold

FONT-STYLE

Regular
Italic

FONT-FAMILY

sans-serif
serif

FONT-SIZE

12px
26px

FONT-FAMILY

serif

- Georgia
- Times
- Times New Roman

sans-serif

- Arial
- Verdana
- Helvetica

ACTIVITY

EXERCISE

KEY OBJECTIVE

- Use CSS to add basic styles to an HTML page.

TIMING

3 min

1. Refer back to starter_code > css_practice > index.html
2. Follow the instructions under Part 2

CASCADING STYLE SHEETS

HOW CSS RULES CASCADE

- Cascading Style Sheets
- Cascade: CSS rules are able to override one another and cancel each other out, depending on their order. In other words, the rules are able to cascade downward until they are canceled out by another rule.

LAST RULE

- If the two selectors are identical, the latter will take precedence

INHERITANCE

- Inheritance in CSS is how certain properties are passed on from a parent element down to its children
- If you specify the font-family or color properties on the <body> element, they will apply child elements. This is because the font-family property is **inherited** by child elements.
- Not all properties are inherited. For example, it wouldn't make sense for the border to be inherited since it's unlikely that a child element should need the same border as its parent.

- You can force a lot of properties to inherit values from their parent elements by using 'inherit' for the value of the properties.

ACTIVITY

EXERCISE

KEY OBJECTIVE

- Practice using CSS by styling Wendy Bite's Resume page

TIMING

Until 9:20

1. Review supplied .pngs starting with Lab…
2. (together) project set up
3. Style Wendy's About Me and Resume pages

LEARNING OBJECTIVES

- Define a version control system (Git) and explain its benefits
- Connect local repositories to remote repositories using the GitHub app
- Predict image paths and apply relative paths to <img> and <a> tags.
- Differentiate between basic web color principles: RGB, RGBA, hexadecimal color.
- Use CSS to add basic styles to an HTML page.

HOMEWORK

HOMEWORK

- Read through the homework specs on the FEWD 42 Dashboard

HIGHLY RECOMMENDED COURSE MATERIALS:

- Jon Duckett - Web Design with HTML, CSS, JavaScript and jQuery Set

SNACK CALENDAR

SIGN UP HERE

EXIT TICKETS

Bookmark this link:
http://goo.gl/forms/vPhCOlfESf