WELCOME TO INTRO TO CODING!

- Log into the wifi network `GA-GUEST`. The password is: `yellowpencil`
- Download Sublime Text 3
- Visit the dashboard and keep it open: `saraheholden.com/intro_to_coding`
- Optional: Create a free CodePen account so you can save the exercise we'll be working on today.

INTRO TO CODING

LEARNING OBJECTIVES

- Describe the role of HTML, CSS and JavaScript in web development.
- Use HTML to add structure to a basic webpage
- Use CSS to add styles to a webpage
- Describe the various opportunities to continue learning web-development

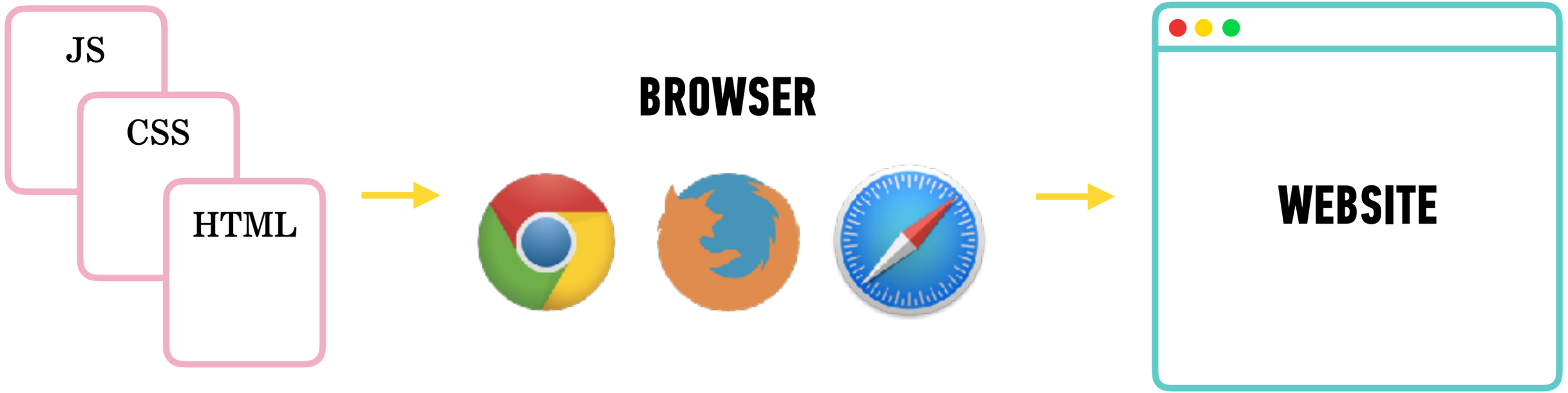
WHAT IS A WEBSITE?

CLIENT AND SERVER

BROWSER

(Chrome, Firefox, Safari, etc.)

CLIENT AND SERVER



- Browsers are applications that read code files and use them to render a web page.
- Browsers only know how to interpret HTML, CSS, JavaScript.

HTML, CSS and JAVASCRIPT

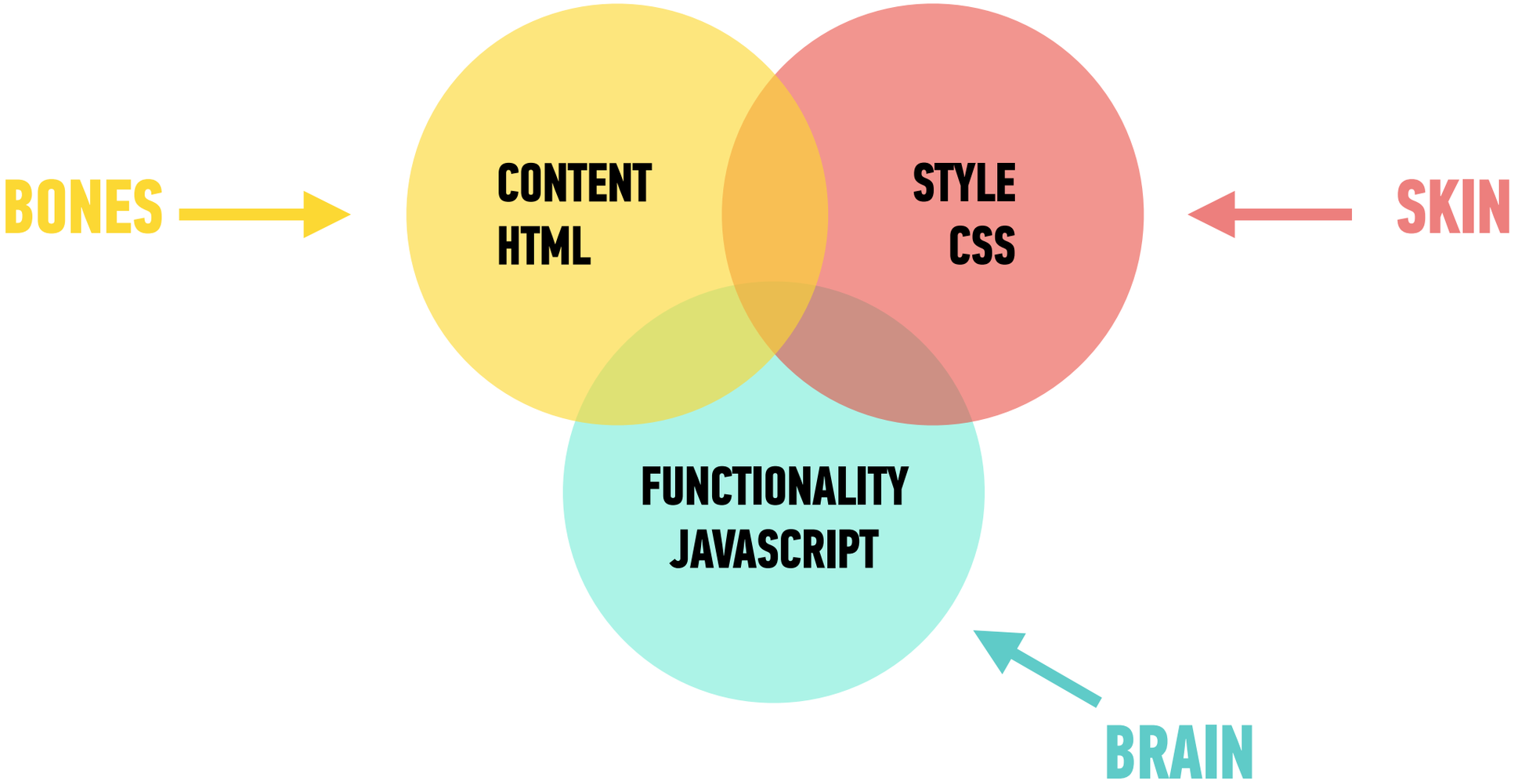
FRONT END IS MADE UP OF...

HTML

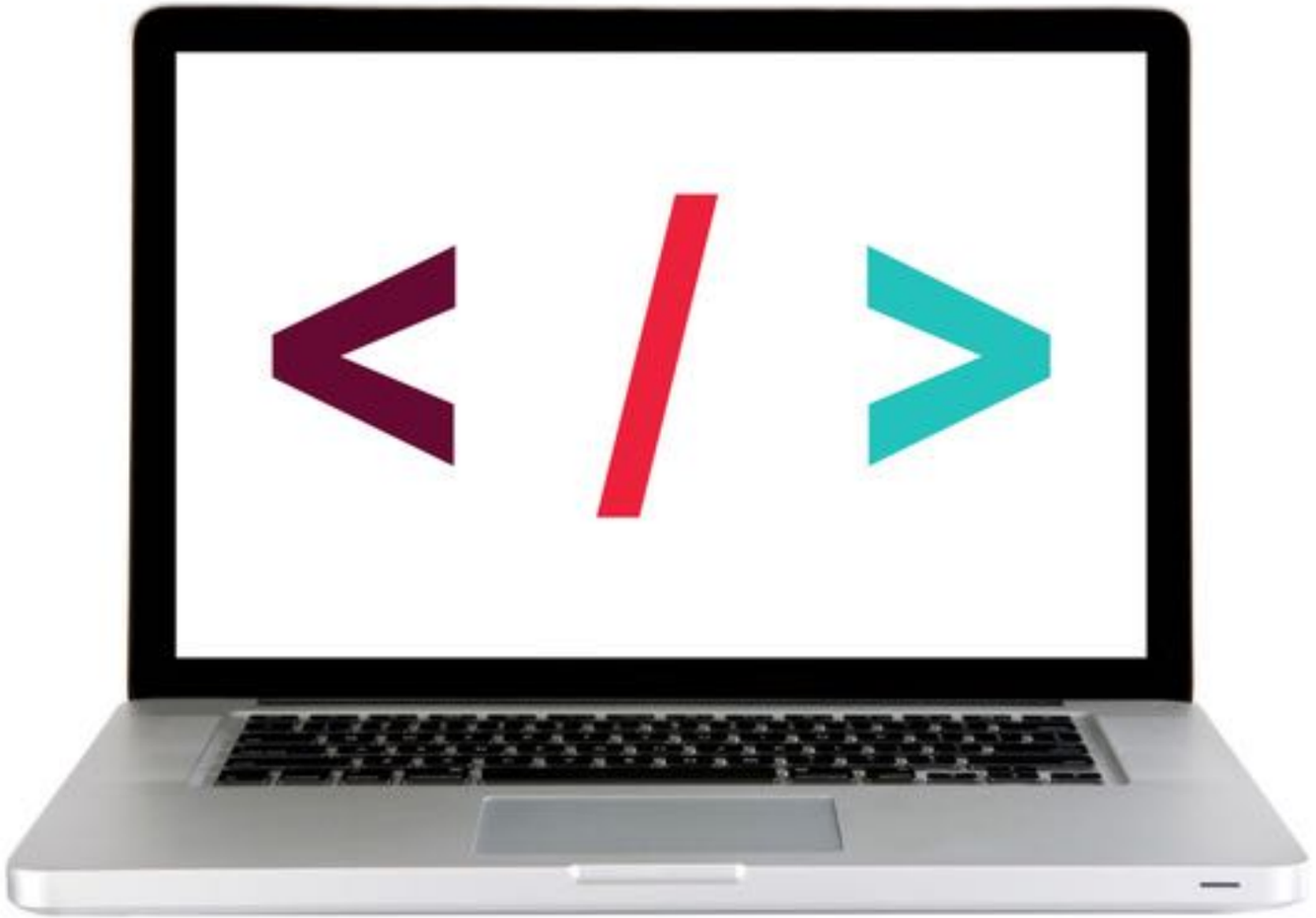
CSS

JavaScript

THE THREE AMIGOS: STRUCTURE, STYLE, BEHAVIOR



LET'S TAKE A CLOSER LOOK



ACTIVITY: DISTINGUISH BETWEEN HTML, CSS, AND JS

DIRECTIONS

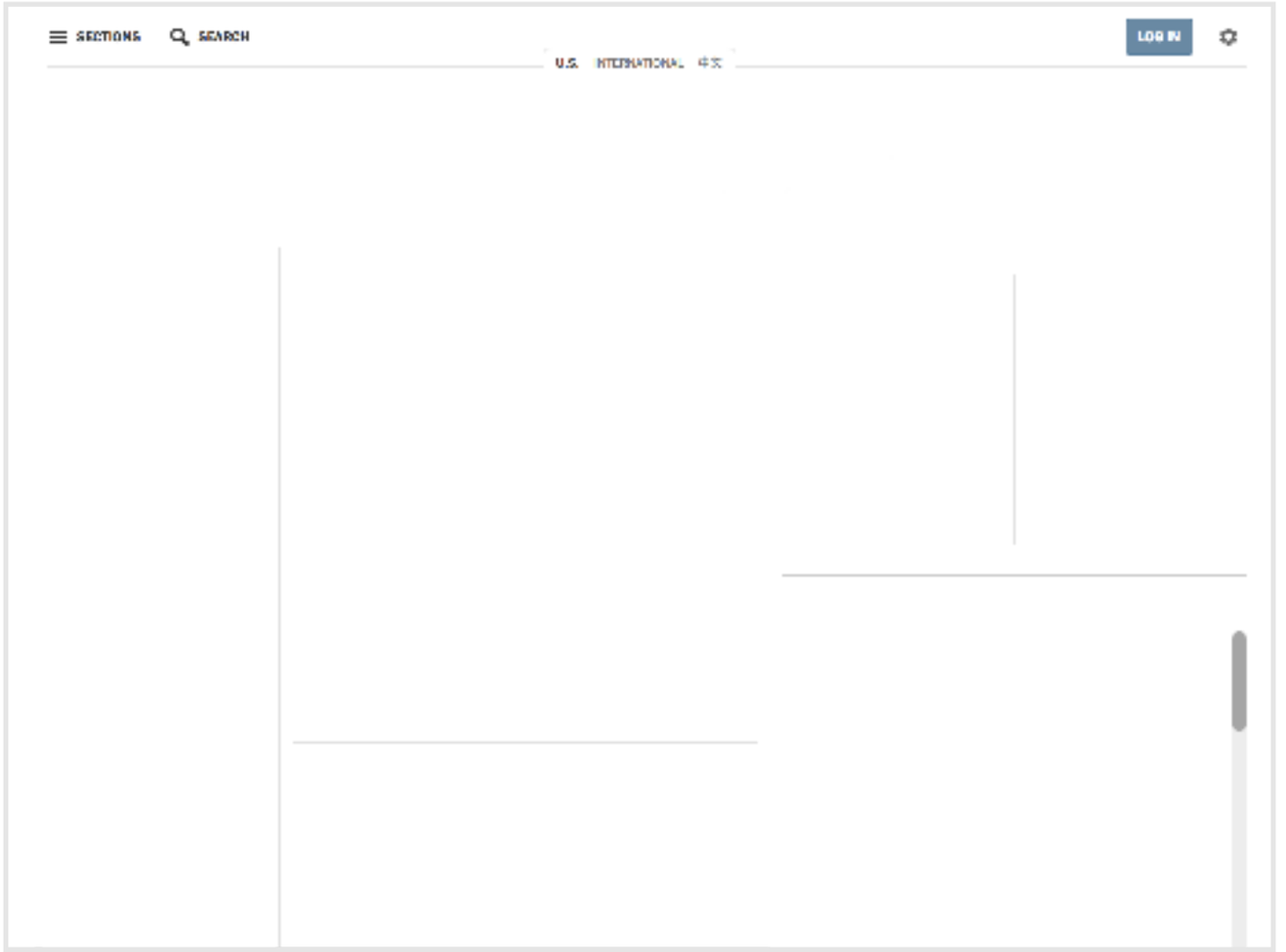
1. Visit lyft.com with a partner.
2. The words “Rides in Minutes” appears due to _____?
3. The reason for which “Rides in Minutes” is uppercase and white is due to _____?
4. Hover over the word “Explore” in the navigation menu. That animation is most likely due to _____?
5. Now hover over the "Sign Up to Ride" link. The change in color on hover is most likely due to _____ ?

INTRO TO HTML

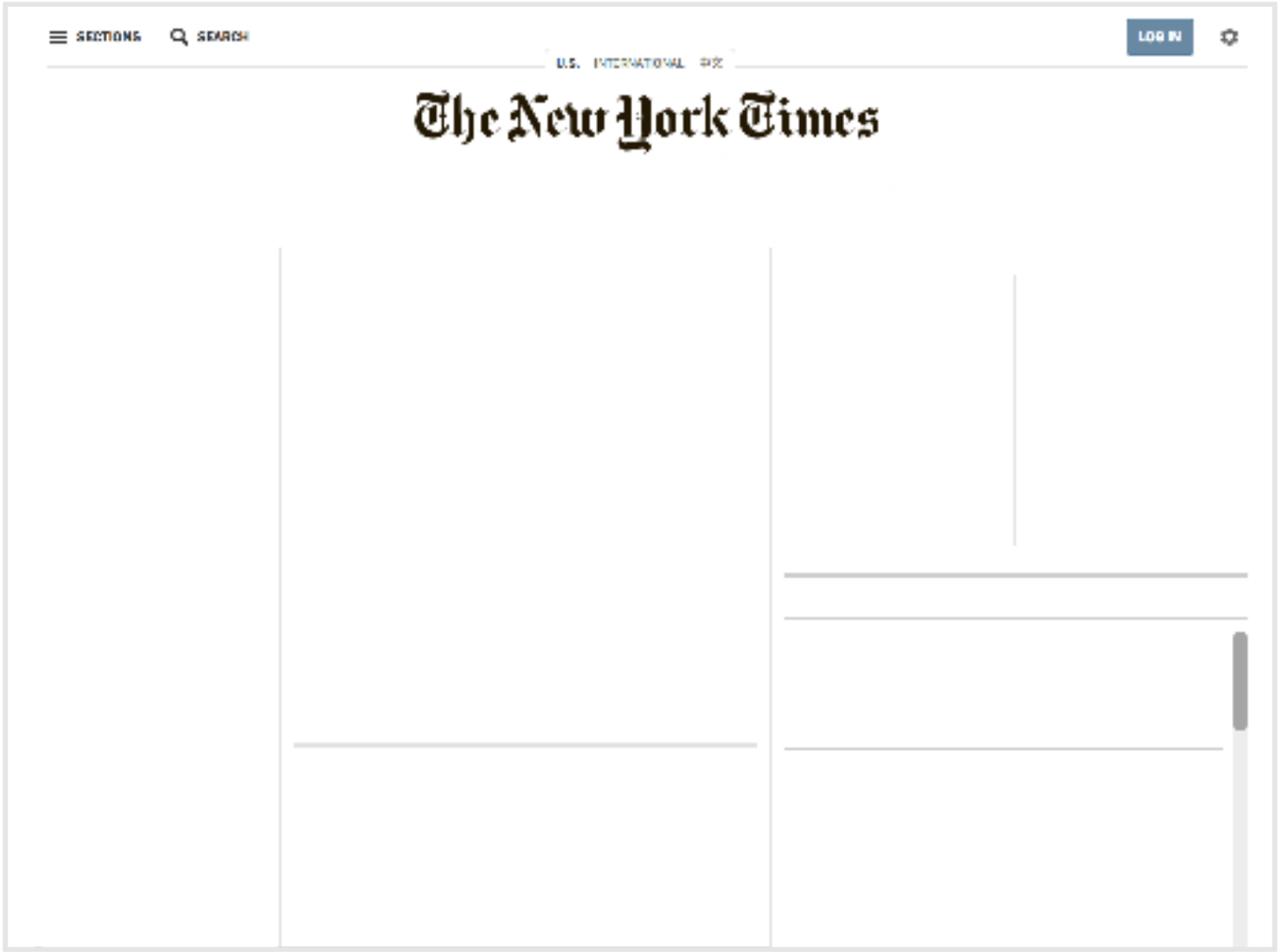
WHAT IS HTML?

SECTIONS
SEARCH
LOGIN
The New York Times
New York City Police Sharply Cut Arrests for a Second Week
Police officers arrested less than half as many people and wrote more than 40 percent fewer summonses than in the same period a year ago, building on a drastic drop in activity that began shortly after the murder of two uniformed patrol officers.
Republicans Say They'll Act Fast to Push Their Agenda
Eager to show that it can govern well, the Republican Party that takes control of Congress beginning Tuesday is likely to begin by trying to quickly advance energy and health care legislation.
Bess Myerson, a Beauty Queen Who Reigned in Politics, Dies
Ms. Myerson, the first Jewish Miss America, was one of a select group of American figures to parlay pop culture celebrity into positions of public influence. She was 90.
Afghan Cares for the Living by Carrying the Dead
Malik Abdul Hakim, who has lost two sons, is revered for collecting and returning the bodies of both Taliban and government casualties.
Home Schooling: More Pupils, Less Regulation
The Opinion Pages
When Skepticism Counts
Novelist David Baldacci and others on the role of conspiracy theories in society.
The Central Crisis in New York Education
New York, which regards itself as a bastion of liberalism, has the most racially and economically segregated schools in the nation.
Watching
A judge in Wisconsin ordered a trial for Dustin Diamond, best known as Screech from "Saved by the Bell," on charges stemming from a bar fight on Christmas night.
Markets tumbled in Europe and the U.S. as the declining price of oil sent ripples around the world.
Gov. Jerry Brown, already California's longest serving governor, will be sworn in Monday for his fourth term. He has said he aims to shore up the state's fiscal turnaround.

WHAT IS HTML?



WHAT IS HTML?



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The Central Crisis in New York Education
Watching

WHAT IS HTML?

SECTIONS
SEARCH
LOG IN
U.S. INTERNATIONAL
The New York Times
Monday, January 5, 2015 | Today's Paper | Video | 36°F | Dow -1.80%
New York City Police Sharply Cut Arrests for a Second Week
By J. DAVID GOODMAN and AL BAKER 53 minutes ago
Police officers arrested less than half as many people and wrote more than 90 percent fewer summonses than in the same period a year ago, building on a drastic drop in activity that began shortly after the murder of two uniformed patrol officers.
108 Comments
Republicans Say They'll Act Fast to Push Their Agenda
By CARL HULSE
Eager to show that it can govern well, the Republican Party that takes control of Congress beginning Tuesday is likely to begin by trying to quickly advance energy and health care legislation.
830 Comments
Bess Myerson, a Beauty Queen Who Reigned in Politics, Dies
Ms. Myerson, the first Jewish Miss America, was one of a select group of American figures to parlay pop culture celebrity into positions of public influence. She was 90.
By ENID NEMY and WILLIAM McDONALD
Afghan Cares for the Living by Carrying the Dead
By AZAM AHMED 12:07 PM ET
Malik Abdul Hakim, who has lost two sons, is revered for collecting and returning the bodies of both Taliban and government casualties.
Home Schooling: More Pupils, Less Regulation
The Opinion Pages
When Skepticism Counts
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By THE EDITORIAL BOARD
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now A judge in Wisconsin ordered a trial for Dustin Diamond, best known as Screech from "Saved by the Bell," on charges stemming from a bar fight on Christmas night.
Milwaukee Journal Sentinel
22m Markets tumbled in Europe and the U.S. as the declining price of oil sent ripples around the world.
The New York Times
25m Gov. Jerry Brown, already California's longest-serving governor, will be sworn in Monday for his fourth term. He has said he aims to shore up the state's fiscal turnaround.
The Los Angeles Times

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Pin it
Fred R. Conrad/The New York Times
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The Opinion Pages
When Skepticism Counts
Novelist David Baldacci and others on the role of conspiracy theories in society.
ROOM FOR DEBATE
The Central Crisis in New York Education
By THE EDITORIAL BOARD
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now
A judge in Wisconsin ordered a trial for Dustin Diamond, best known as Screech from "Saved by the Bell," on charges stemming from a bar fight on Christmas night.
Milwaukee Journal Sentinel
22m
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Editorial: Race and Voting Rights in Ferguson
Op-Ed Columnists
Blow: Privileges of 'Arrest Without Incident'
Krugman: Predictions and the Economy
The Central Crisis in New York Education
New York, which regards itself as a bastion of liberalism, has the most racially and economically segregated schools in the nation.
Editorial: Shifting Politics on the Death Penalty
Op-Ed: Losing the Fight Against Tuberculosis
Watching
A judge in Wisconsin ordered a trial for Dustin Diamond, best known as Screech from "Saved by the Bell," on charges stemming from a bar fight on Christmas night.
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Gov. Jerry Brown, already California's longest serving governor, will be sworn in Monday for his fourth term. He has said he aims to shore up the state's fiscal turnaround.

HTML : HYPER TEXT MARKUP LANGUAGE

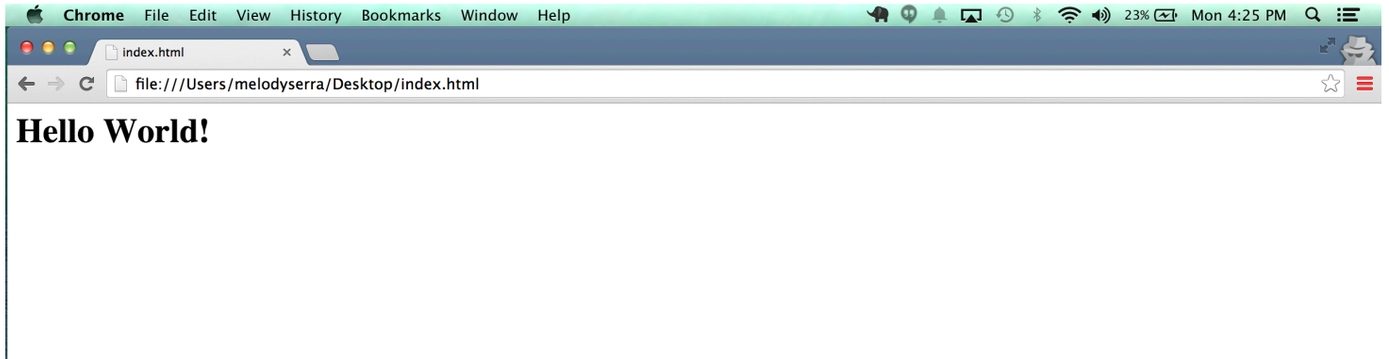
- HTML is made up of tags
- Tags = < >
- Tags tell the browser how to format content
- e.g Will the content be formatted as an image or as a link?

opening tag, type declaration

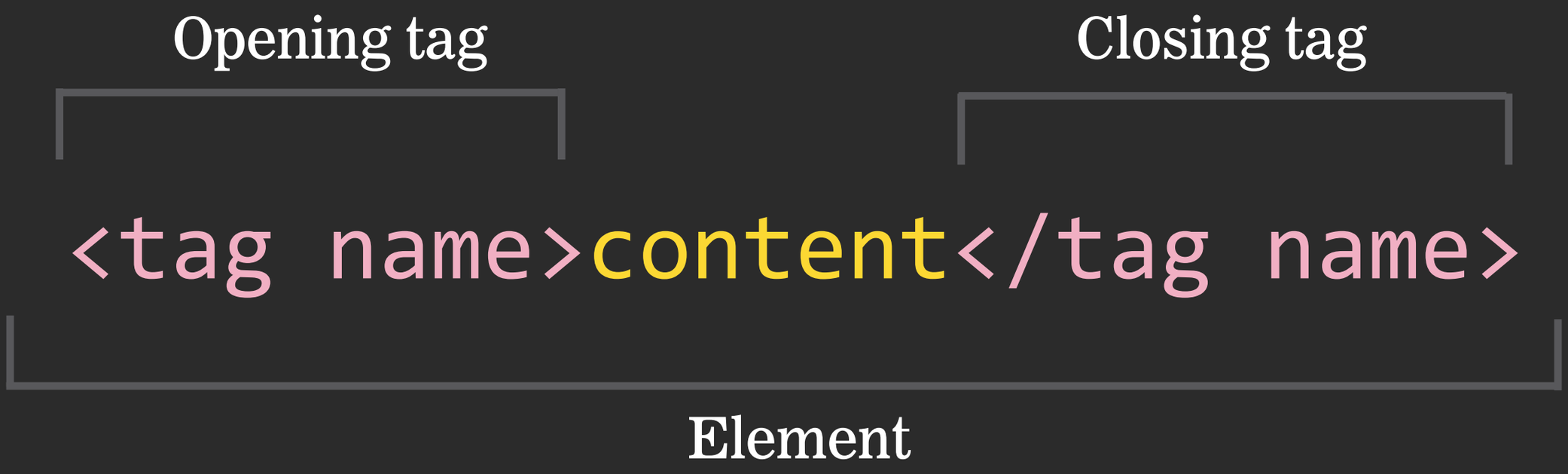
what is rendered

closing tag

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



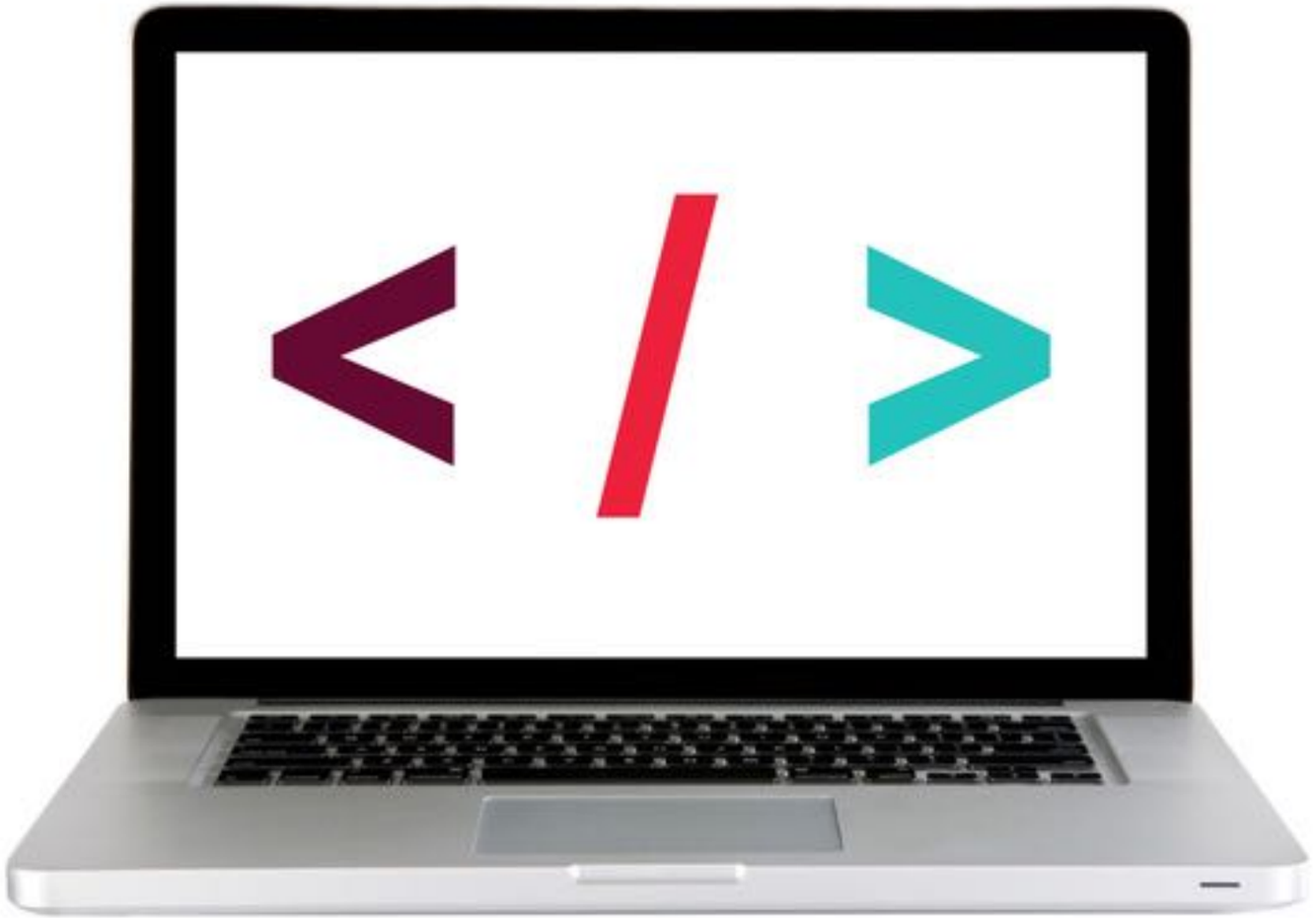
HTML SYNTAX — TAGS



WHAT IS HTML?

```
<h1>My Awesome Page</h1>
<p>A paragraph of text about my awesome page.</p>
<img src="cat.jpg">
<a href="https://www.facebook.com/">Visit my Facebook page</a>
```

LET'S TAKE A CLOSER LOOK



GUIDED PRACTICE

OPEN YOUR BROWSER AND NAVIGATE TO

HTTP://CODEPEN.IO/SARAHHOLDEN/PEN/KAOJXD

STRUCTURAL TAGS — HEADINGS & PARAGRAPHS

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

HTML CODE-ALONG

Elements can be nested inside other elements.

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

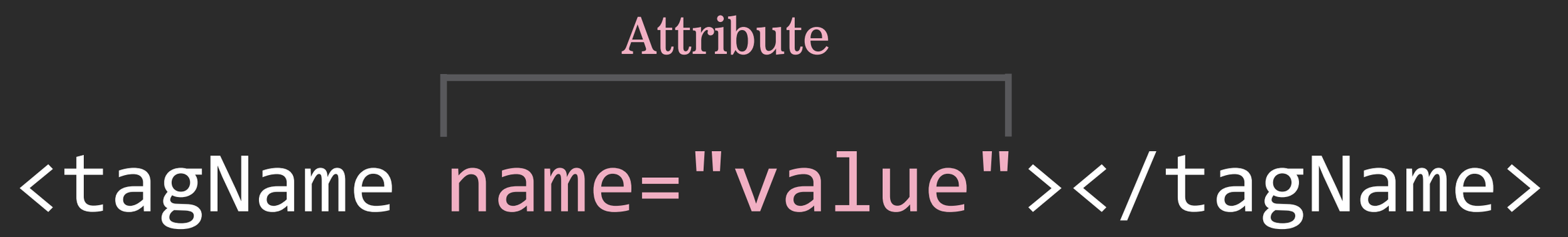
STRUCTURAL TAGS — UNORDERED LISTS

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

ATTRIBUTES — EXAMPLE

```
<pizza crust="thin" toppings="pepperoni"></pizza>
```

HTML SYNTAX — ATTRIBUTES



ANCHORS

- Specify which page you want to link using the **href** attribute.
- Users can click on anything between the opening and closing <a> tags.

THE IMAGE TAG

Path to the image file

Text description

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

```
<img src="https://placekitten.com/g/500/600" alt="kitten">
```

BASIC LAYOUT OF AN HTML DOCUMENT

HTML STRUCTURE

- To generate HTML boilerplate in Sublime: `html + tab`.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Document</title>
</head>
<body>


</body>
</html>
```

HTML STRUCTURE — DOCTYPE

DESCRIPTION:

- Tells browser file is written in latest version of HTML — HTML5

BEST PRACTICES:

- Must be very first thing in HTML file!

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Document</title>
</head>
<body>


</body>
</html>
```

HTML STRUCTURE — HTML

DESCRIPTION:

- ALL of our HTML code should go within these tags.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Document</title>
</head>
<body>


</body>
</html>
```

HTML STRUCTURE — HEAD

DESCRIPTION:

- For behind-the-scenes info
- Metadata that's not displayed
- Info used by browser, search engines

BEST PRACTICES:

- Only one in each HTML file

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Document</title>
</head>
<body>


</body>
</html>
```

HTML STRUCTURE — META CHARSET

DESCRIPTION:

- Tells our browser which character set to use
- Should always use UTF-8

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Document</title>
</head>
<body>


</body>
</html>
```

HTML STRUCTURE — TITLE

DESCRIPTION:

- Tells browser what site is called
- Used for browser tab
- Used for browser bookmarks
- Used by search engines

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Document</title>
</head>
<body>


</body>
</html>
```

HTML STRUCTURE — BODY

DESCRIPTION:

- Wraps all content for our site
- **Everything we want displayed in the browser window gets placed between the body tags** — our HTML elements such as <h1>, <a>, <p>, etc.

BEST PRACTICES:

- Only one in each HTML file

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Document</title>
</head>
<body>


</body>
</html>
```

HTML STRUCTURE — BODY

ALL THE HTML YOU WANT TO BE DISPLAYED IN THE BROWSER NEEDS TO GO IN THE BODY!!!!!!

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Document</title>
</head>
<body>

</body>
</html>
```

LAB — PART 1

ACTIVITY: CREATING YOUR FIRST HTML FILE

EXERCISE

DIRECTIONS

1. Create a folder on your desktop and title it “my_website”
2. Open up the folder you just made in Sublime
3. In Sublime, create a new file and save it as “index.html”
4. Add a basic HTML template by typing `html` and hitting tab

ACTIVITY: PRACTICE WRITING HTML

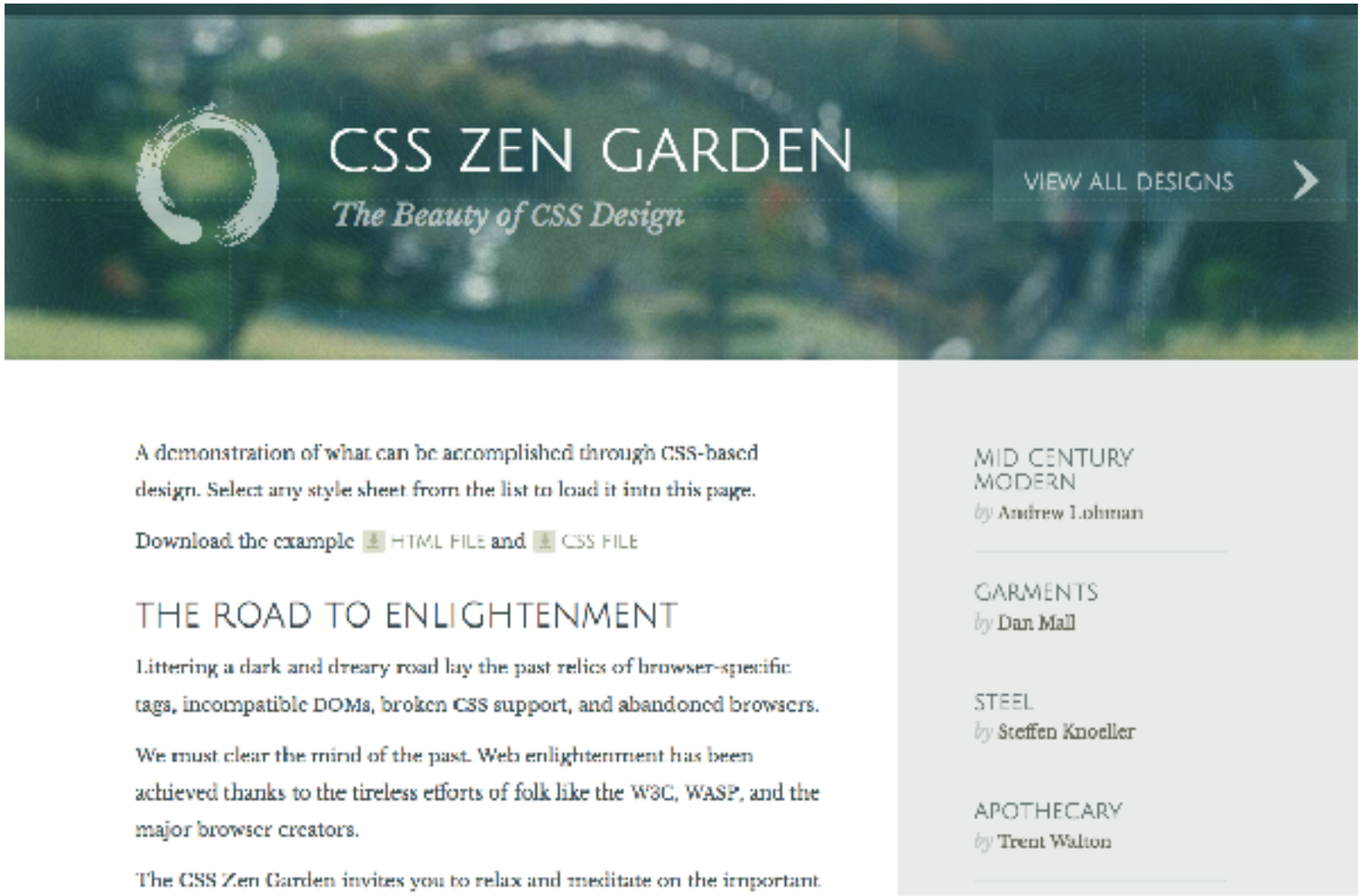
EXERCISE

DIRECTIONS

1. Copy the text from the Google doc on the dashboard and paste it **within the opening and closing `<body>` tags**.
2. Save your HTML file!
3. Right click anywhere in the html file and click "Open in Browser"
4. Add markup (HTML tags) to the content using the Part 1 image as a reference.
5. Save your HTML file as you work!
6. Refresh the page in your browser to see any updates.

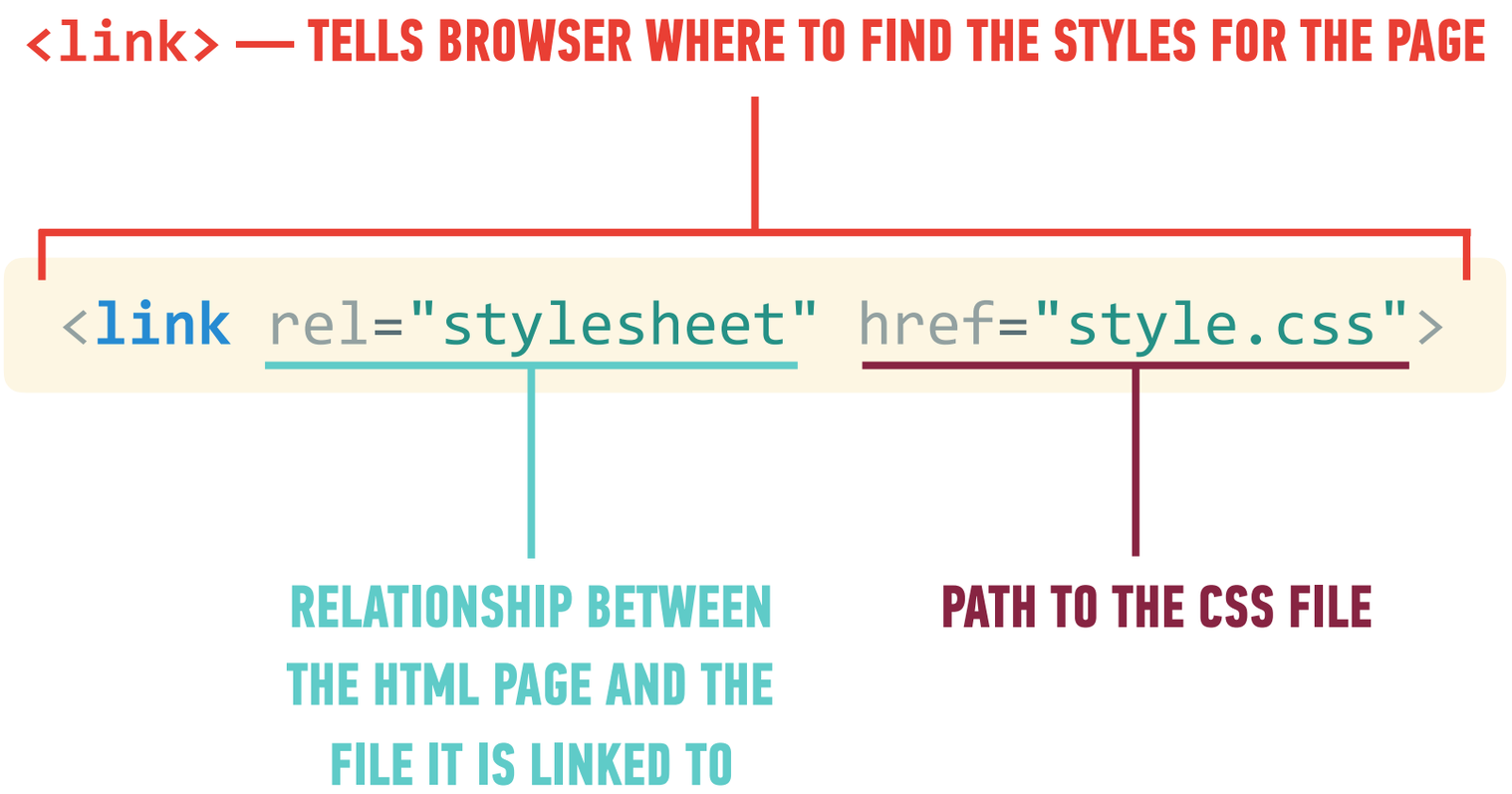
INTRO TO CSS

WHAT IS CSS?


CSS ZEN GARDEN
The Beauty of CSS Design
VIEW ALL DESIGNS
A demonstration of what can be accomplished through CSS-based design. Select any style sheet from the list to load it into this page.
Download the example HTML FILE and CSS FILE
THE ROAD TO ENLIGHTENMENT
Littering a dark and dreary road lay the past relics of browser-specific tags, incompatible DOMs, broken CSS support, and abandoned browsers.
We must clear the mind of the past. Web enlightenment has been achieved thanks to the tireless efforts of folk like the W3C, WASP, and the major browser creators.
The CSS Zen Garden invites you to relax and meditate on the important
MID CENTURY MODERN
by Andrew Lohman
GARMENTS
by Dan Mall
STEEL
by Steffen Knoeller
APOTHECARY
by Trent Walton

ADDING A CSS FILE

ADDING A CSS FILE — THE LINK ELEMENT



ADDING A CSS FILE

MUST GO IN THE <HEAD> OF THE DOCUMENT!!!

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

ACTIVITY: CREATING YOUR FIRST HTML FILE

EXERCISE

DIRECTIONS

1. In your `my_website` folder, create a file called `style.css`.
2. Add a link to the stylesheet in the head of your `index.html` file. It should look like this:

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

3. Save your `index.html` file.

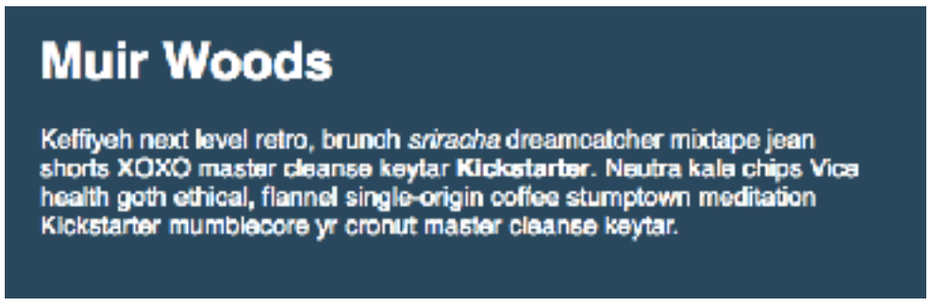
CSS BASICS

WHAT IS CSS?

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

COLOR

PROPERTY	VALUE	DESCRIPTION	EXAMPLE
color	color	Text color	color: #22475E;
background-color	color	Background color	background-color: green;



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

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

TYPEFACE TERMINOLOGY — PART 1

PROPERTY	VALUES	EXAMPLE
text-align	left, center, right, justify	text-align: center;
text-transform	uppercase, lowercase, capitalize	text-transform: uppercase;
text-decoration	none, underline	text-decoration: underline;
line-height	px value	line-height: 22px;

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;`

- We can provide a comma-separated list for the value.
- The browser will display the first font that 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 copy the link that is provided.
4. Paste this link **on a new line inside the `<head>` of your `index.html` file**.
5. To apply these fonts in your `style.css` file, use the font-family property and the name of the font within quotes:

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

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

HTML FILE — ALL LINKED UP!

The structure of your HTML file should now look like this:

```
<!DOCTYPE html>
<html>
<head>
    <title>My Awesome Website</title>
    <link href="https://fonts.googleapis.com/css?family=Lato|Raleway:400,700" rel="stylesheet">
    <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>

    <!-- Your HTML content from the last exercise should be here -->

</body>
</html>
```

LAB — PART 2

CAN'T FIGURE OUT SOMETHING? GOOGLE IT!

When coding, you are going to get lots of errors…

Google first, ask questions later (but don't be afraid to ask).

Be sure to include the language — "HTML" or "CSS" — in your search query.

REFERENCE PAGES:

- Mozilla Developer Network
- W3Schools
- CSS Tricks

ACTIVITY: CREATING YOUR FIRST HTML FILE

EXERCISE

DIRECTIONS

1. Write CSS to replicate the mockup for Part 2. You can choose between the regular or advanced version.
2. Use your cheatsheets.
3. Google anything you can't figure out. Be sure to include "html" or "css" in the search query.
4. Save each file you make edits to as you go!
5. Refresh the page in your browser to view any updates.

LAUNCHING OUR SITE!

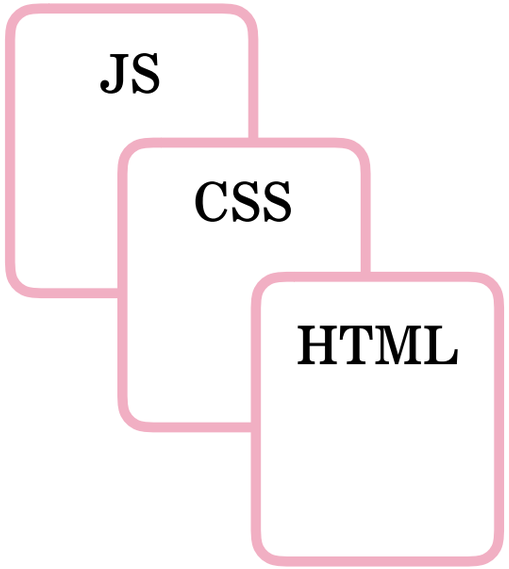
CLIENT AND SERVER

CLIENT

- Browsers are installed on a "client" (computer, phone, etc.)

CLIENT AND SERVER

SERVER



- The HTML, CSS, and JS files for websites are stored on a computer that is always connected to the internet, called a *server*

REQUEST/RESPONSE

CLIENT RUNNING A WEB BROWSER

Your browser connects to a server and requests a page

Server sends back requested page

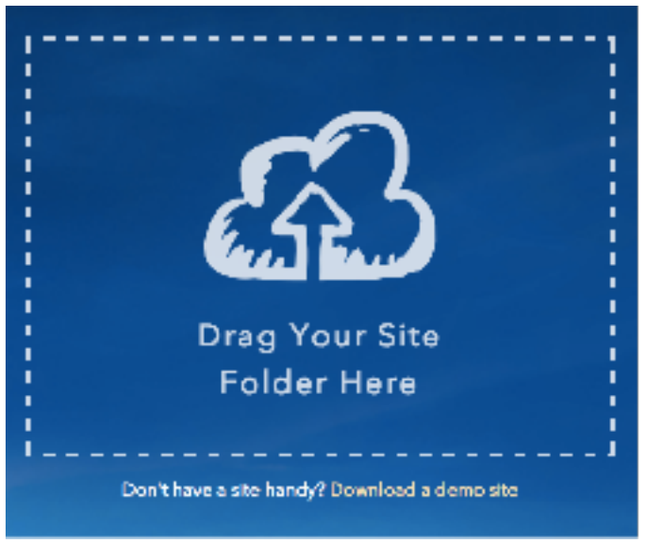
SERVER MACHINE RUNNING A WEB SERVER

ACTIVITY: LAUNCHING OUR SITES!

EXERCISE

DIRECTIONS

1. Visit http://bitballoon.com/
2. Drag and drop the my_website folder we created earlier here:



CLASSES AND WORKSHOPS

HOW TO LEARN THIS AT GA?

PART-TIME:

FEWD / JS

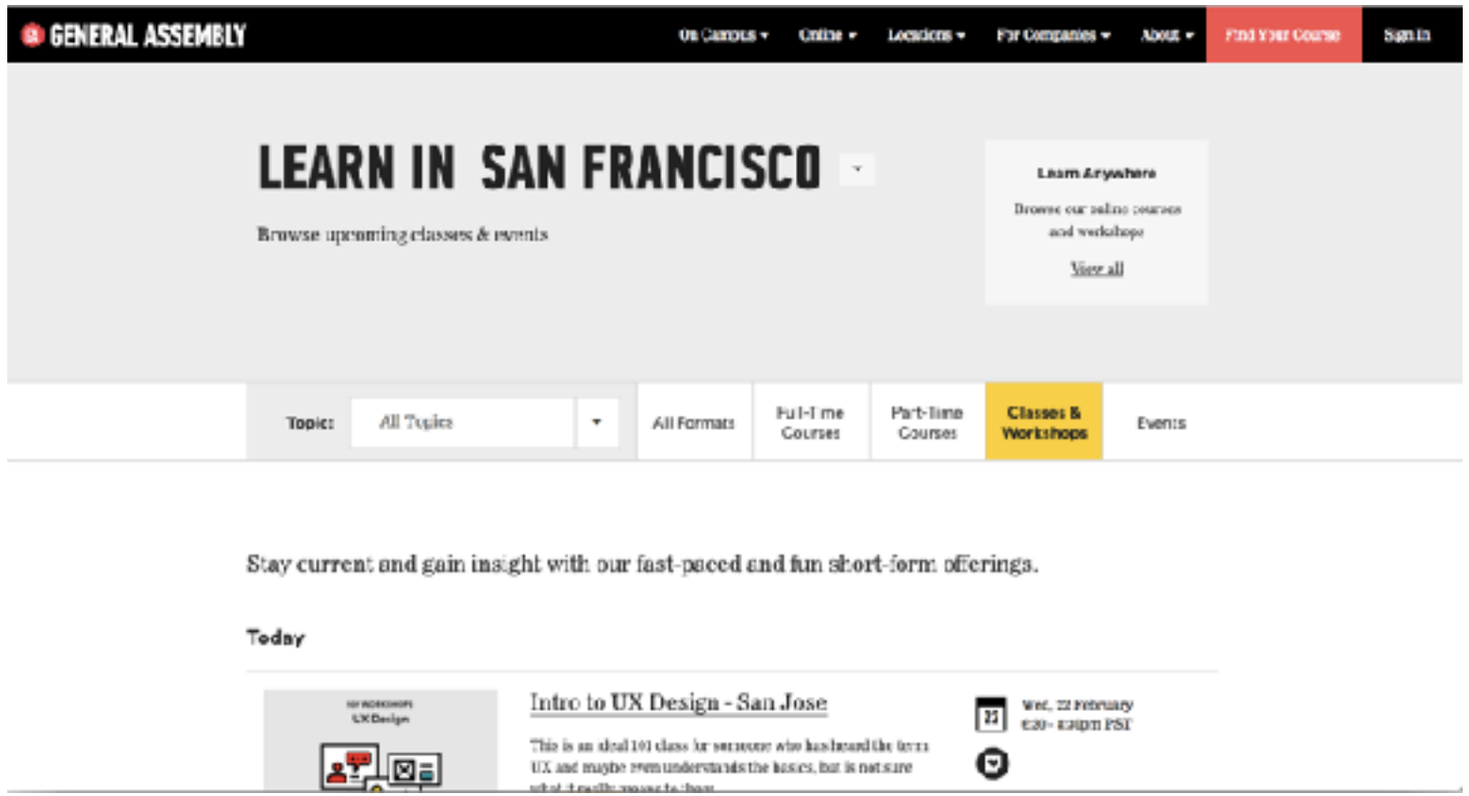
FULL-TIME:

WDI

ONLINE:

HCD / JSC / WDIR

MORE WORKSHOPS AND EVENTS



ACTIVITY: AFTER CLASS YOU CAN...

DIRECTIONS

1. Go to dash.ga.co
2. There are 5 projects available to you that cover what we went over tonight and more!

WRAP-UP

REFERENCE PAGES:

- Mozilla Developer Network
- W3Schools
- CSS Tricks

STAYING CURRENT

- Smashing Magazine
- Codrops
- Medium
- A List Apart
- CSS Tricks

STAYING CURRENT

- From Zero to Front-End Hero
- Codecademy
- CodeSchool
- Treehouse

and

THANKS!

THANKS!

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