

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

HTML, CSS and JAVASCRIPT

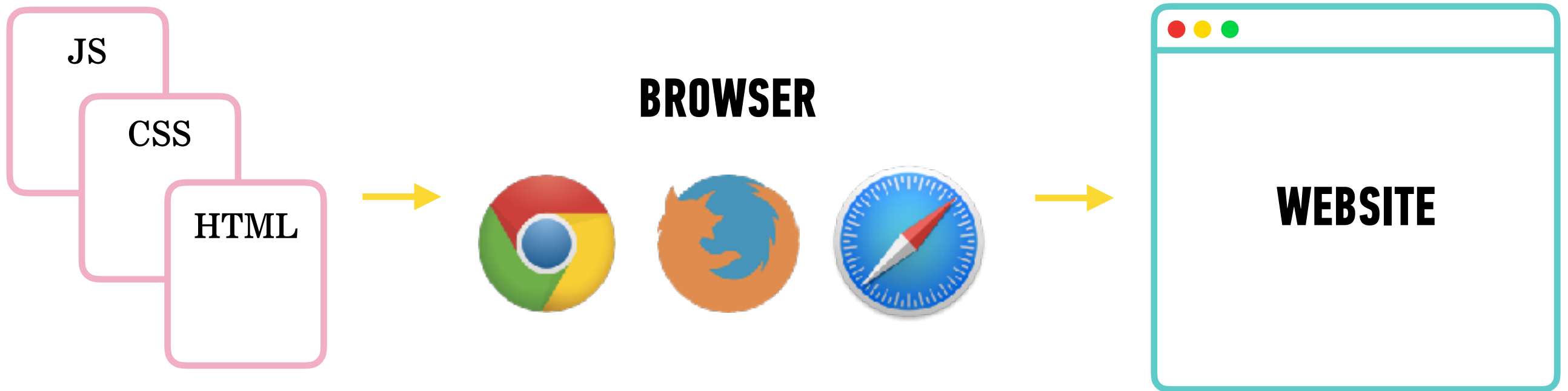
CLIENT AND SERVER

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.

FRONT END IS MADE UP OF...

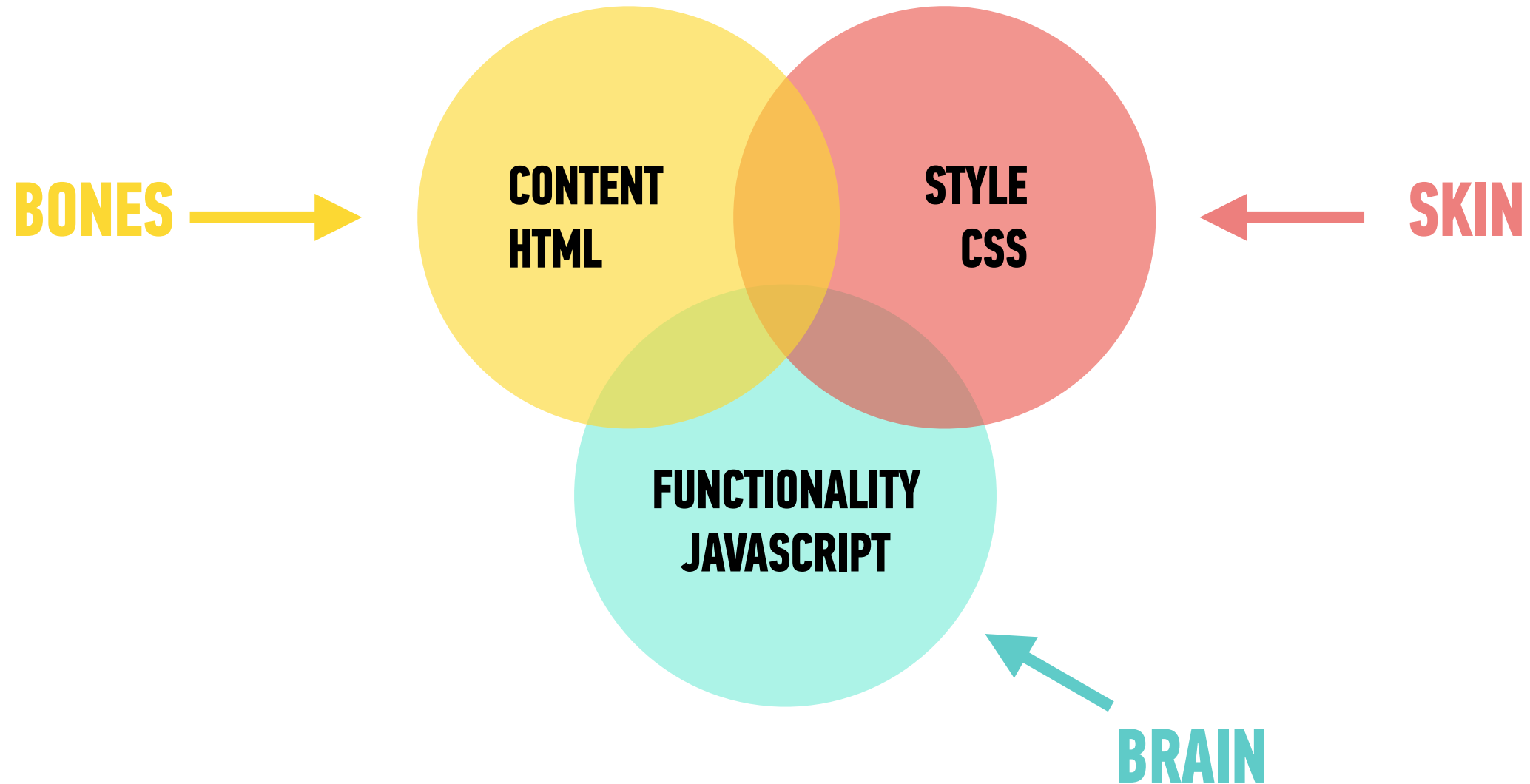
HTML

CSS

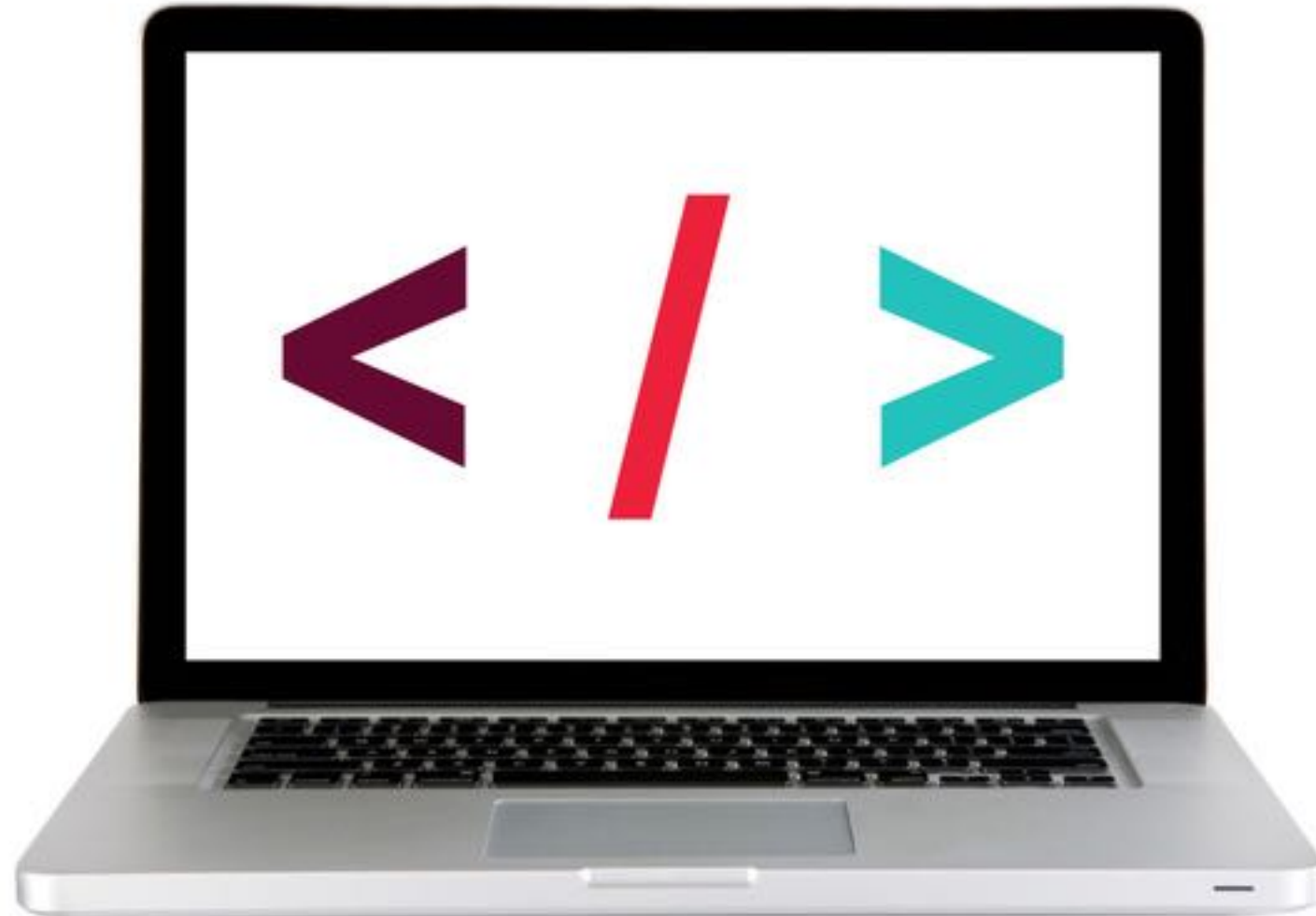
JavaScript



THE THREE AMIGOS: STRUCTURE, STYLE, BEHAVIOR



LET'S TAKE A CLOSER LOOK



ACTIVITY: DISTINGUISH BETWEEN HTML, CSS, AND JS



EXERCISE

DIRECTIONS

1. Let's visit [lyft.com](https://www.lyft.com) together
2. The words "Rides in Minutes" appears due to _____?
3. The reason for which "Rides in Minutes" is centered and white is due to _____?
4. Hover over the word "Explore" in the navigation menu. That animation is most likely due to _____?

INTRO TO HTML

WHAT IS HTML?

SECTIONS

SEARCH

U.S. INTERNATIONAL

LOG IN

The New York Times

Monday, January 9, 2016 Today's Paper | All Media | 30° Dew -1.8°C

World U.S. Politics New York Business Opinion Technology Science Health Sports Arts Style Food Home Travel Magazine Real Estate

New York City Police Sharply Cut Arrests for a Second Week

By J. DAVID GOODMAN and AL HANCOCK 10:00 a.m. EST

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.

108 Comments

Republicans Say They'll Act Fast to Push Their Agenda

By CONOR MCELROY

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.

490 Comments



Photo: R. Conrad/The New York Times

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 KIM DERRY and WILLIAM McDONALD

Afghan Cares for the Living by Carrying the Dead

By CONOR MCELROY 10:45 a.m. EST

Malik Abdul Hakim, who has lost two sons, is rewarded 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.

Editorial: Race and Voting Rights in Ferguson

OP-ED COLUMNISTS

- Brown: Privilege of 'Arrest Without Incident'
- Krugman: Presidents and the Economy

The Central Crisis in New York Education

By THIS EDITORIAL BOARD

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: Loving the Fight Against Tuberculosis

Watching

11A A judge in Wisconsin ordered a trial for Dustin Diamond, best known as Scorch from "Saved by the Bell," on charges stemming from a bar fight on Christmas night.

Wisconsin Journal Sentinel

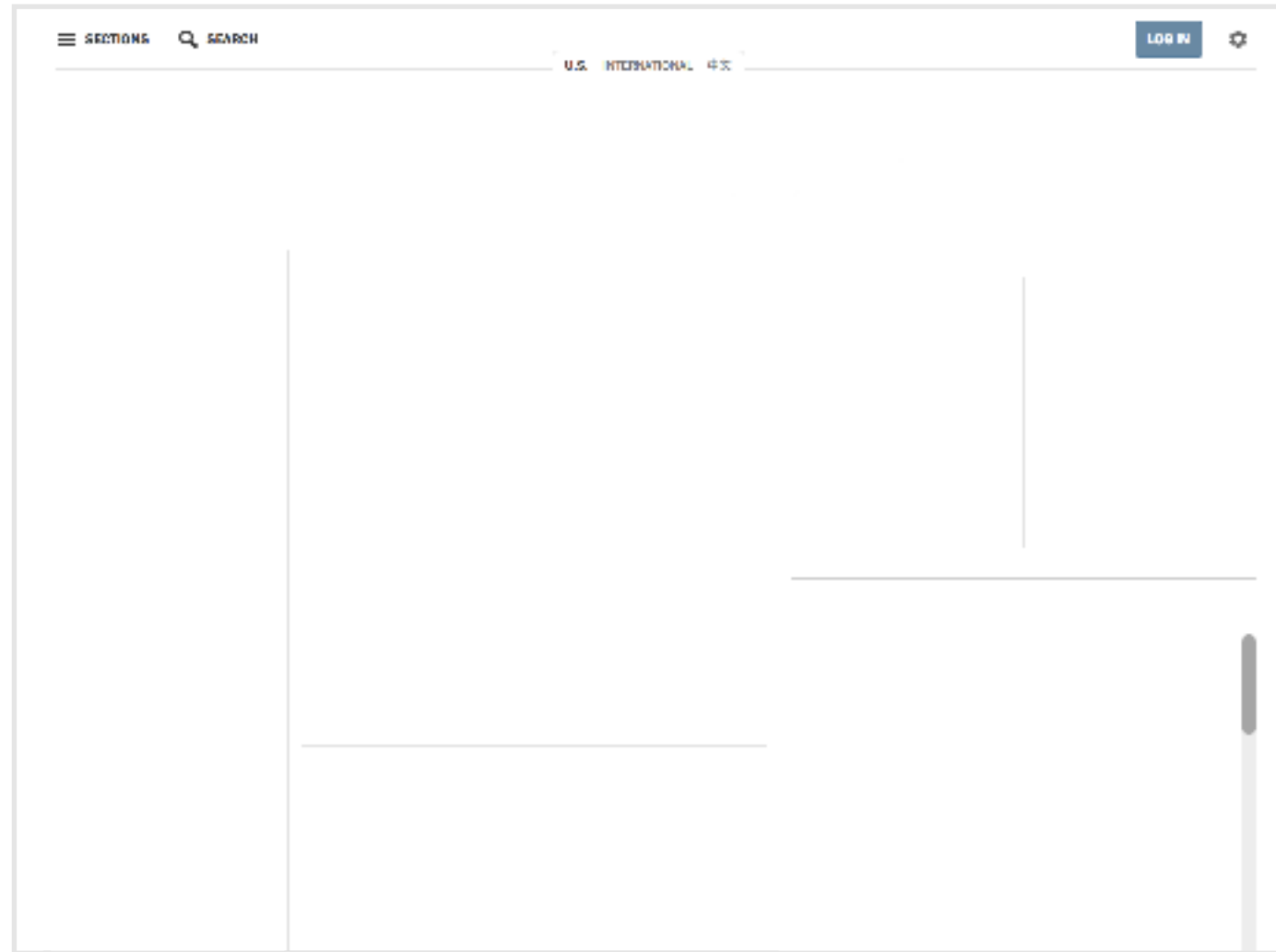
12PM Markets tumbled in Europe and the U.S. as the declining price of oil sent ripples around the world.

The New York Times

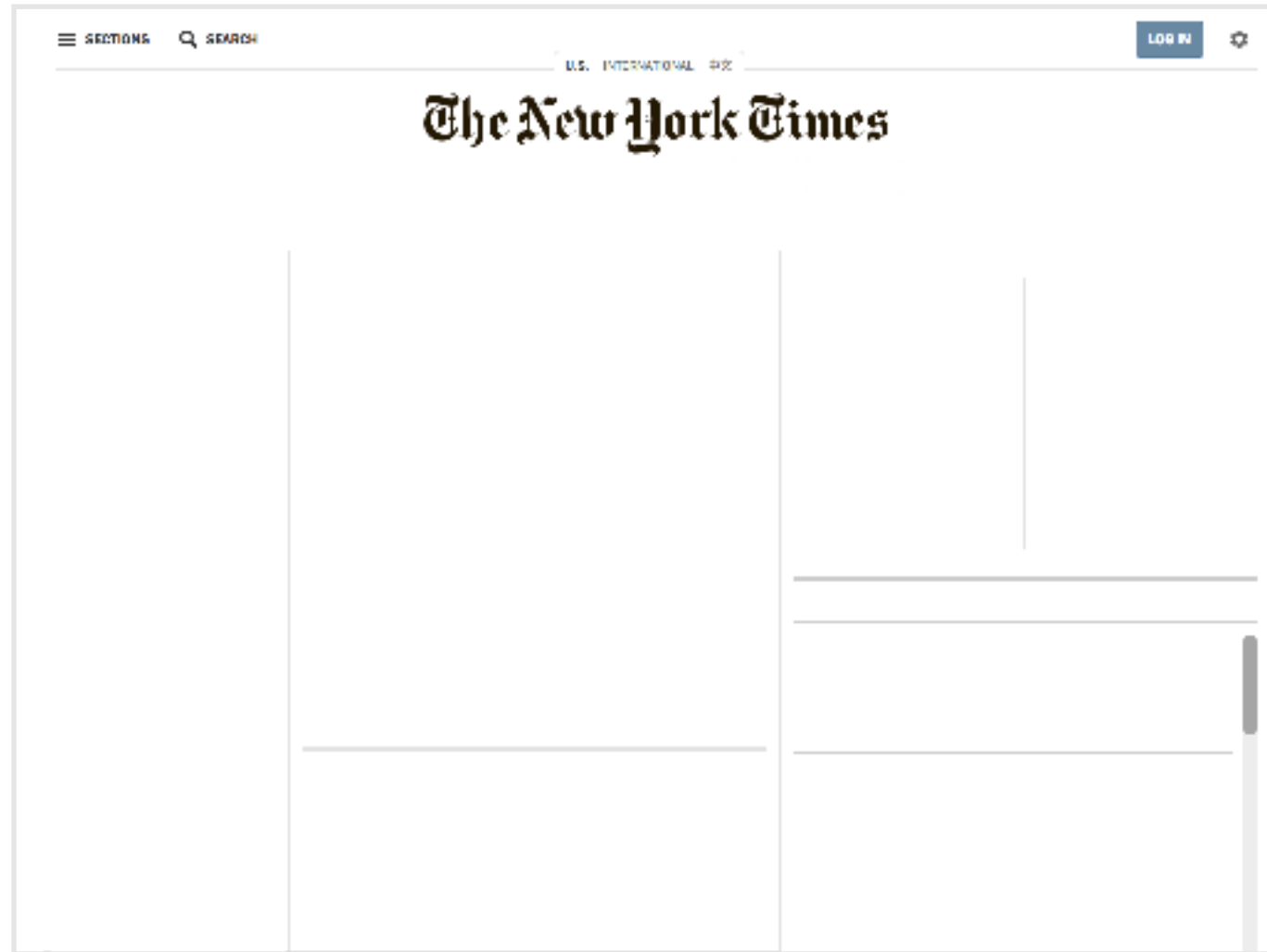
2PM Gov. Jerry Brown, already California's longest-serving governor, will be sworn in Monday for his fourth term. He has said he plans to shore up the state's fiscal turnaround.

The Los Angeles Times

WHAT IS HTML?



WHAT IS HTML?



WHAT IS HTML?



WHAT IS HTML?

[SECTIONS](#) [SEARCH](#)

[U.S.](#) [INTERNATIONAL](#) [中文](#)

[LOG IN](#) 

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

Novelist David Baldacci and others on the role of conspiracy theories in society.

The Central Crisis in New York Education

By THE EDITORIAL BOARD

New York, which regards itself as a bastion of liberalism, has the most racially and economically segregated schools in the nation.

Watching

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](#)

WHAT IS HTML?

[SECTIONS](#) [SEARCH](#)

[U.S.](#) [INTERNATIONAL](#) [中文](#)

[LOG IN](#) 

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](#)



Fred R. Conrad/The New York Times

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

Novelist David Baldacci and others on the role of conspiracy theories in society.



The Central Crisis in New York Education

By THE EDITORIAL BOARD

New York, which regards itself as a bastion of liberalism, has the most racially and economically segregated schools in the nation.

Watching

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](#)



WHAT IS HTML?

SECTIONSSEARCH

U.S.INTERNATIONAL

LOG IN

The New York Times

Monday, January 5, 2016Today's Paperin VideoNYTDown Arrow

WorldU.S. PoliticsNew YorkBusinessOpinionTechnologyScienceHealthSportsArtsStyleReal EstateTravelMagazineReal Estate

New York City Police Sharply Cut Arrests for a Second Week

By J. DAVID GOODMAN and AL HANCOCK 40 minutes ago

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.

108 Comments

Republicans Say They'll Act Fast to Push Their Agenda

By CHAD HUIZEND

Bager 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.

140 Comments



For R. Carroll/The New York Times

Bess Myerson, a Beauty Queen Who Reigned in Politics, Dies

Mrs. 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 EDWARD WYLLIE and WILLIAM McDONALD

Afghan Cares for the Living by Carrying the Dead

By GUYAN ARIEFF 10:45 PM ET

Malik Abdul Hakeem, who has lost two sons, is awarded for collecting and returning the bodies of both Taliban and government casualties.

Home Schooling: More Pupils, Less Regulation

When Skepticism Counts

Novelist David Shields and others on the role of conspiracy theories in society.

Editorial: Race and Voting Rights in Ferguson

OP-ED COLUMNISTS

Blow: Privilege of 'Arrest Without Incident'

Krugman: Presidents and the Economy

The Opinion Pages

The Central Crisis in New York Education

BY THE EDITORIAL BOARD

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

NEW

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



COM

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 plans to shore up the state's fiscal fundamentals.

The Los Angeles Times

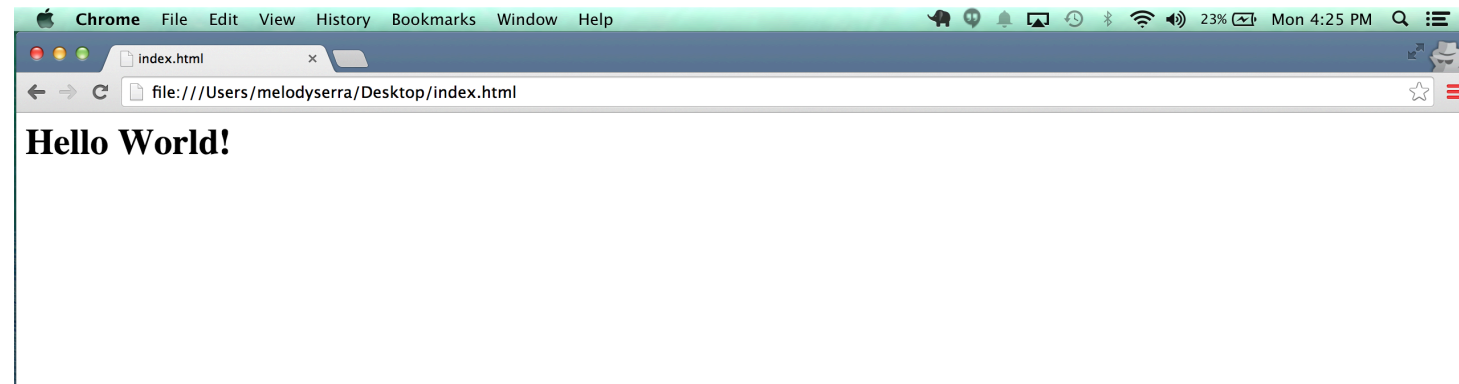


HTML : HYPER TEXT MARKUP LANGUAGE

- › 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

Opening tag

Closing tag

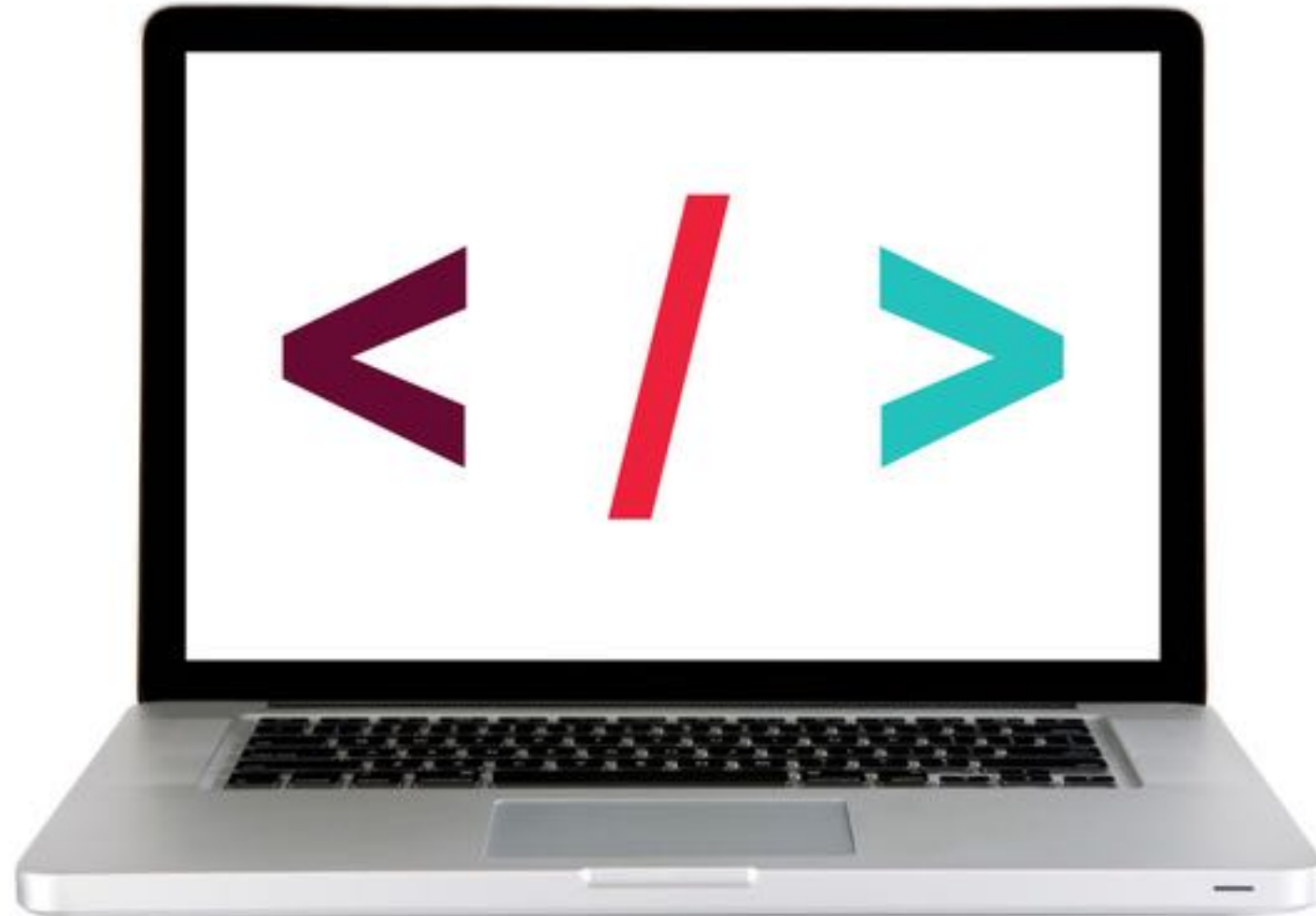
`<tag name>content</tag name>`

Element

WHAT IS HTML?

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

LET'S TAKE A CLOSER LOOK



FRONT END

GUIDED PRACTICE

OPEN YOUR BROWSER AND NAVIGATE TO

[HTTP://CODEPEN.IO/SARAHHOLDEN/PEN/KA0JXD](http://codepen.io/sarahholden/pen/ka0jxd)

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

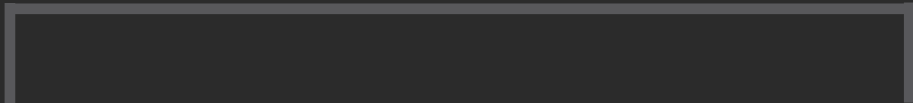
ELEMENT	DESCRIPTION	EXAMPLE
ul	Unordered List	<pre> Monday Tuesday Wednesday </pre>
li	List Item	

ATTRIBUTES — EXAMPLE

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

HTML SYNTAX — ATTRIBUTES

Attribute



```
<tagName name="value"></tagName>
```

ANCHORS

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

Page the link takes you to



The diagram shows an HTML anchor tag: `Amazon`. A bracket above the href value points to the text "Page the link takes you to". A bracket below the word "Amazon" points to the text "Text to display".

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

Text to display

THE IMAGE TAG

Path to the image file

Text description

```

```

```

```



HTML

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.

BEST PRACTICES:

- ▶ Directly after DOCTYPE
- ▶ Opening tag — Line 2
- ▶ Closing tag — Last line

```
<!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:

- Opens — right after opening html tag
- Closes — right before opening body tag
- 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

BEST PRACTICES:

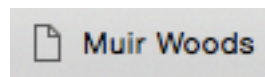
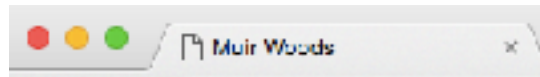
- Required
- Goes inside of head tags

```
<!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



BEST PRACTICES:

- Required
- Goes inside of head tags

```
<!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 — all our HTML elements such as `<h1>`, `<a>`, `<p>`, etc.

BEST PRACTICES:

- Required
- Opens — Right after closing head tag
- Closes — Right before closing html tag
- Only one in each HTML file

```
<!DOCTYPE html>

<html lang="en">

  <head>

    <meta charset="UTF-8">

    <title>Document</title>

  </head>

  <body>

    </body>

</html>
```

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
5. Now add some text *within the body tags*: "Hello World"
6. Save your HTML file!
7. Right click anywhere in the html file and click "Open in Browser"
8. Edit the text to read: "Hello World!"
9. Save your HTML file!
10. Refresh the page in your browser to see any updates

ACTIVITY: PRACTICE WRITING HTML



EXERCISE

DIRECTIONS

1. Copy the text from the Google doc on the dashboard and paste within the opening and closing `<body>` tags.
2. Write markup to replicate the Part 1 image.
3. Be sure to write all your HTML within the opening and closing `<body>` tags!
4. Save as you work!!

INTRO TO CSS

WHAT IS CSS?



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 Knöller

APOTHECARY

by Trent Walton

CSS SYNTAX

Selector

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

COLOR

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

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.

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

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.

```
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, <u>underline</u>	text-decoration: underline;
line-height	number, 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-family	sans-serif, serif	font-family: serif;
font-size	px value	font-size: 20px;

HTML

LAB — PART 2

USING EXTERNAL CSS — :)

- `<link>` — tells browser where to find the CSS file that should be used to style the page.
- **Should live inside the `<head>` of the document.**

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

- `href` — path to the CSS file.
- `rel` — relationship between the HTML page and the file it is linked to.

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.
4. In `style.css`, give the body a background color to make sure things are hooked up correctly:

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

5. Save the `style.css` file.
6. Refresh the page in your browser!

GOOGLE FONTS

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 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:

`font-family: 'Raleway';`

or

`font-family: 'Lato';`

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 SITES!

CLIENT AND SERVER



CLIENT

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

CLIENT AND SERVER



SERVER

JS

CSS

HTML

- ▶ 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



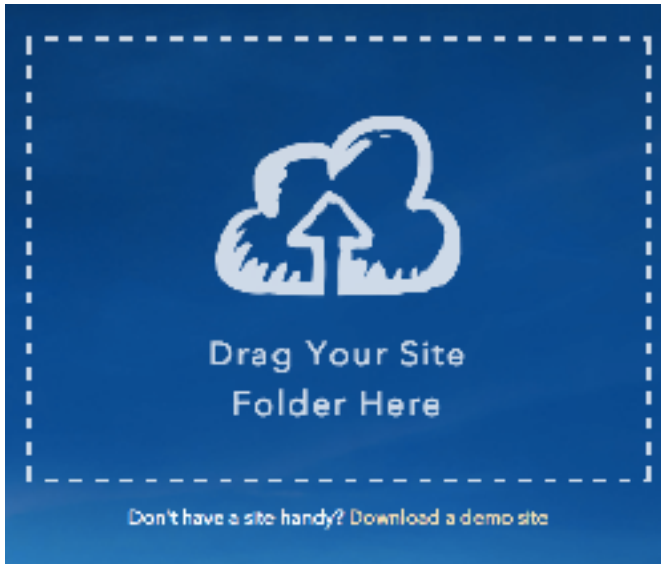
**SERVER MACHINE
RUNNING A WEB
SERVER**

ACTIVITY: LAUNCHING OUR SITES!

DIRECTIONS

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

EXERCISE



SO, WHO NEEDS TO
KNOW THIS STUFF?

WRAP UP



Business
Managers



Product
Managers



Designers



Marketers



Programmers

CODING 101 : HTML + CSS

HOW TO LEARN THIS AT GA?



PART-TIME:

FEWD / JS



FULL-TIME:

WDI



ONLINE:

HCD / JSC / WDIR

WRAP-UP

CODING 101 : HTML + CSS

REFERENCE PAGES:

- Mozilla Developer Network
- W3Schools
- CSS Tricks

STAYING CURRENT

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

A COUPLE OF LAST THINGS

You are going to get lots of errors...

Google first, ask questions later (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.

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!



EXERCISE

Q and A

THANKS!

THANKS!

SARAH HOLDEN

- ▶ sarahbethholden@gmail.com
- ▶ saraheholden.com
- ▶ Instagram: [sarah__holden](https://www.instagram.com/sarah__holden) (two underscores between words)