Front-End Web Development

Orientation and Introduction to HTML

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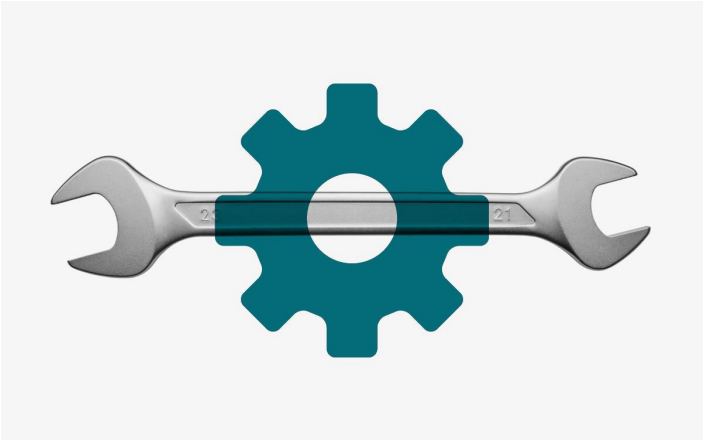
Today's Learning Objectives

In this lesson, you will:

- Create HTML documents using common element tags.
- Inspect web pages using the browser's developer tools.
- Describe the relationship between HTML, CSS, and JavaScript in websites.

Tools We'll Use

- Slack for communication
- A text editor
- Google Chrome
- CodePen
- Trello for task management



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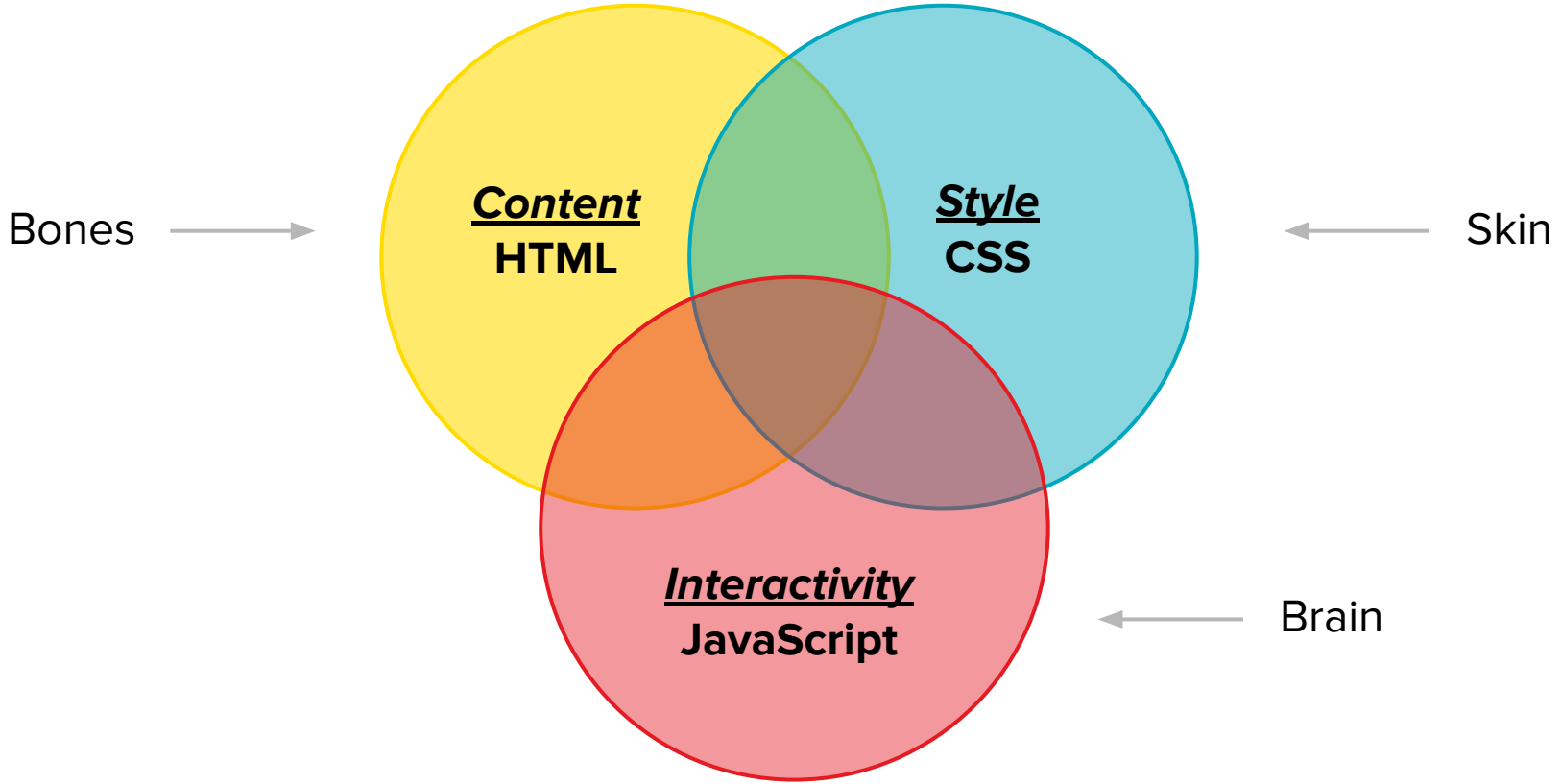
Resources

- Stack Overflow for coding questions
- CSS-Tricks for CSS/HTML questions
- MDN for referencing standards of JS
- CodePen for easy code sandboxes
- CanIUse.com for browser compatibility checks

What Is Front-End Development?



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So, What Is HTML?

HTML: Structure for Webpages

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HTML Basics

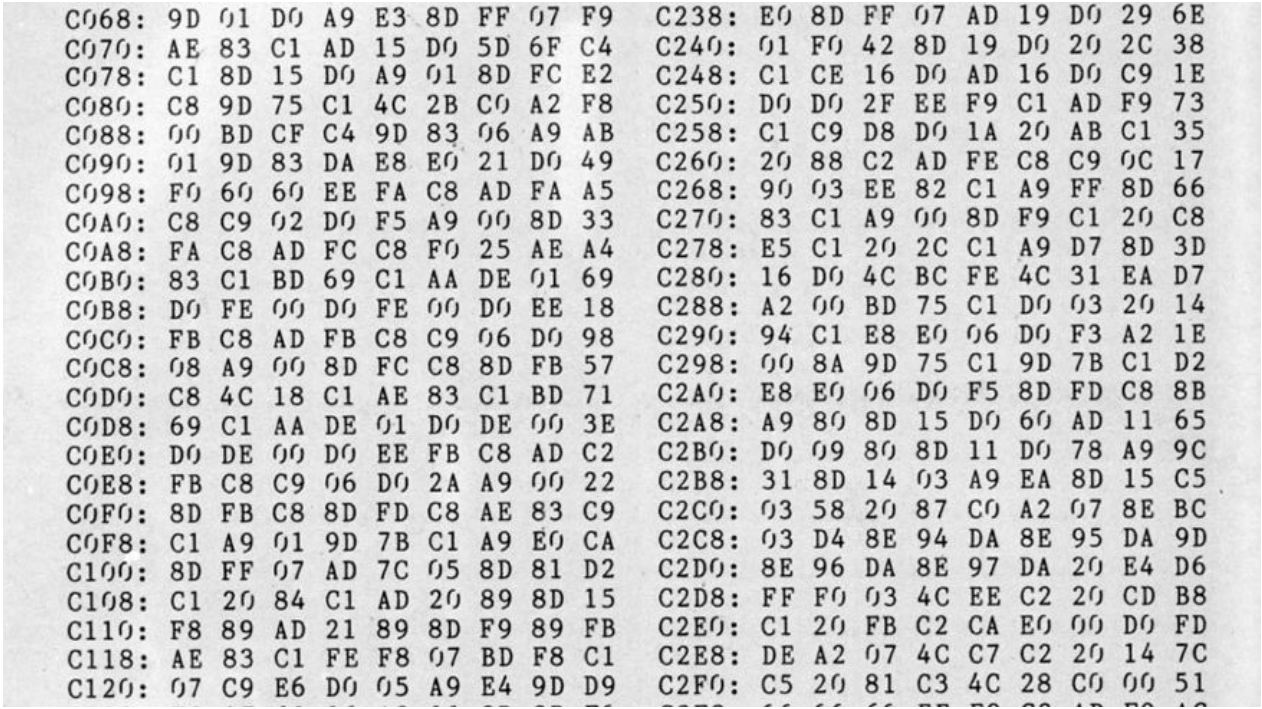
The doctype for all HTML documents is the same: <!DOCTYPE html>. It is ALWAYS the first item on a page.

```
<!DOCTYPE html>
<html>
 <head>
  <title>GA</title>
 </head>
 <body>
  <p>Hey GA!</p>
 </body>
</html>
```

<html> tag ALWAYS encloses the entire document

<head> and <body> tags are where page content go. The <head> contains what machines see, <body> is what people see.

Most People Think HTML Is Programming — It's Not!

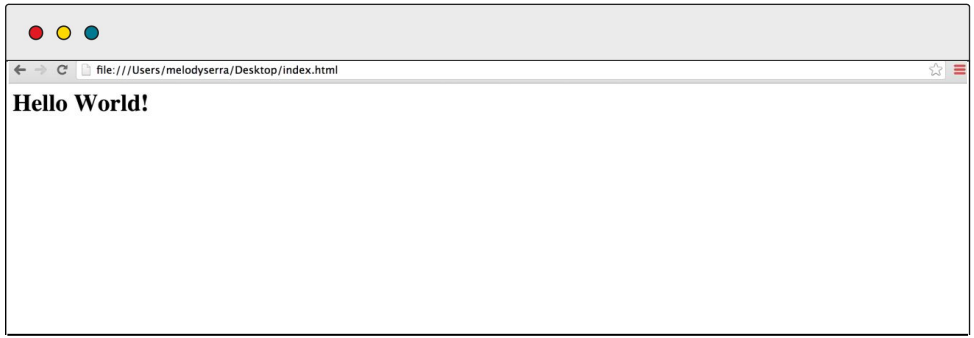


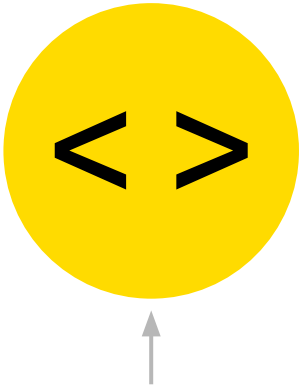
```
C068: 9D 01 D0 A9 E3 8D FF 07 F9   C238: E0 8D FF 07 AD 19 D0 29 6E
C070: AE 83 C1 AD 15 D0 5D 6F C4   C240: 01 F0 42 8D 19 D0 20 2C 38
C078: C1 8D 15 D0 A9 01 8D FC E2   C248: C1 CE 16 D0 AD 16 D0 C9 1E
C080: C8 9D 75 C1 4C 2B C0 A2 F8   C250: D0 D0 2F EE F9 C1 AD F9 73
C088: 00 BD CF C4 9D 83 06 A9 AB   C258: C1 C9 D8 D0 1A 20 AB C1 35
C090: 01 9D 83 DA E8 E0 21 D0 49   C260: 20 88 C2 AD FE C8 C9 0C 17
C098: F0 60 60 EE FA C8 AD FA A5   C268: 90 03 EE 82 C1 A9 FF 8D 66
C0A0: C8 C9 02 D0 F5 A9 00 8D 33   C270: 83 C1 A9 00 8D F9 C1 20 C8
C0A8: FA C8 AD FC C8 F0 25 AE A4   C278: E5 C1 20 2C C1 A9 D7 8D 3D
C0B0: 83 C1 BD 69 C1 AA DE 01 69   C280: 16 D0 4C BC FE 4C 31 EA D7
C0B8: D0 FE 00 D0 FE 00 D0 EE 18   C288: A2 00 BD 75 C1 D0 03 20 14
C0C0: FB C8 AD FB C8 C9 06 D0 98   C290: 94 C1 E8 E0 06 D0 F3 A2 1E
C0C8: 08 A9 00 8D FC C8 8D FB 57   C298: 00 8A 9D 75 C1 9D 7B C1 D2
C0D0: C8 4C 18 C1 AE 83 C1 BD 71   C2A0: E8 E0 06 D0 F5 8D FD C8 8B
C0D8: 69 C1 AA DE 01 D0 DE 00 3E   C2A8: A9 80 8D 15 D0 60 AD 11 65
C0E0: D0 DE 00 D0 EE FB C8 AD C2   C2B0: D0 09 80 8D 11 D0 78 A9 9C
C0E8: FB C8 C9 06 D0 2A A9 00 22   C2B8: 31 8D 14 03 A9 EA 8D 15 C5
C0F0: 8D FB C8 8D FD C8 AE 83 C9   C2C0: 03 58 20 87 C0 A2 07 8E BC
C0F8: C1 A9 01 9D 7B C1 A9 E0 CA   C2C8: 03 D4 8E 94 DA 8E 95 DA 9D
C100: 8D FF 07 AD 7C 05 8D 81 D2   C2D0: 8E 96 DA 8E 97 DA 20 E4 D6
C108: C1 20 84 C1 AD 20 89 8D 15   C2D8: FF F0 03 4C EE C2 20 CD B8
C110: F8 89 AD 21 89 8D F9 89 FB   C2E0: C1 20 FB C2 CA E0 00 D0 FD
C118: AE 83 C1 FE F8 07 BD F8 C1   C2E8: DE A2 07 4C C7 C2 20 14 7C
C120: 07 C9 E6 D0 05 A9 E4 9D D9   C2F0: C5 20 81 C3 4C 28 C0 00 51
```

HTML: Hypertext Markup Language

- HTML is made up of tags.
- Tags tell the browser how to encode the content (e.g., will the content be formatted as an image or as a link?)

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





These symbols surround every tag.

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The Anatomy of HTML

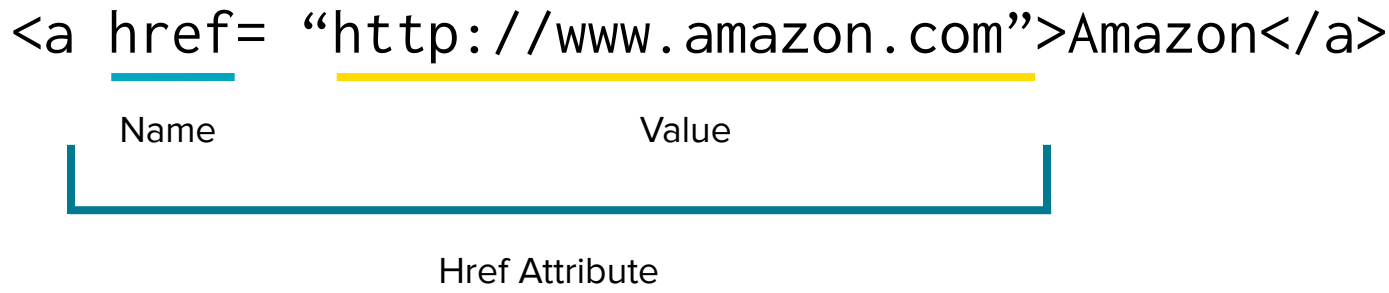
Regular Tags	`<p>Hello GA</p>` Opening Tag — Content — Closing Tag

Self-closing Tags (aka Void Tags)	`<img src="picture.jpg" />`
	`<img src="picture.jpg" alt="A picture">`
	Tag — Attribute

Attributes

Attributes are additional information we add to an element.

- They appear in the opening tag of the element.
- They are made up of two parts: a **name** and a **value**, separated by “=”.



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HTML Exercises

Solo Exercise:

Hello, Inspector!

10 minutes

Visit one of your favorite websites and **identify three HTML tags** used within it.

To view the HTML structure of a page using Google Chrome, simply right click on any element on the page and choose “Inspect.” This will open the DevTools panel (this is your new world!) and allow you to view and edit the HTML structure underlying the page.

Then, you might use resources such as W3Schools to get a sense of what the tag means and its most common use cases.

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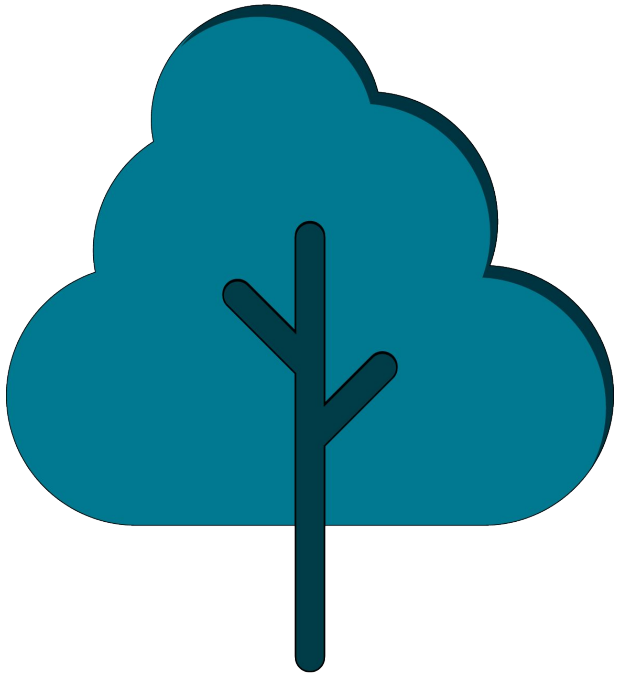
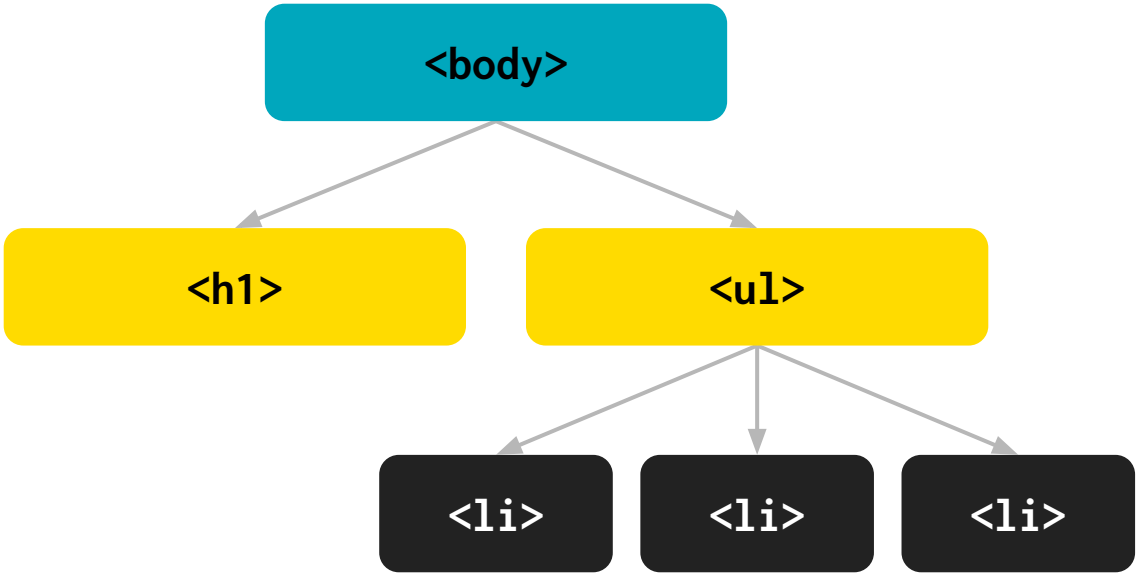
Structure of HTML

Visualize Your HTML Tags as a Tree



Elements Can Have Parents, Children, and Siblings



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Common Body Tags

Element	Description	Example
h1	Main headings	`<h1>The Explorer</h1>`
h2-h6	Subheadings	`<h2>Articles</h2>`
p	Paragraph of text	`<p>This is a really cool site.</p>`
a	Anchor tag for links to other web addresses	`<a href=”google.com”> Search for stuff </a>`
img	Images	`<img src=”pic.jpg”>`

Common HTML Tags: Lists

Element	Description	Example

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

`ul`	Unordered list	

`ol`	Ordered list	`<ol>`
		`  <li>Monday</li>`
		`  <li>Tuesday</li>`
		`  <li>Wednesday</li>`
		`</ol>`

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Tags in the Document Head

Element	Description	Example
`link`	Links a CSS style sheet.	`<link href=”css/style.css”>`
`title`	Website title that shows up in the browser tab.	`<title>My website</title>`

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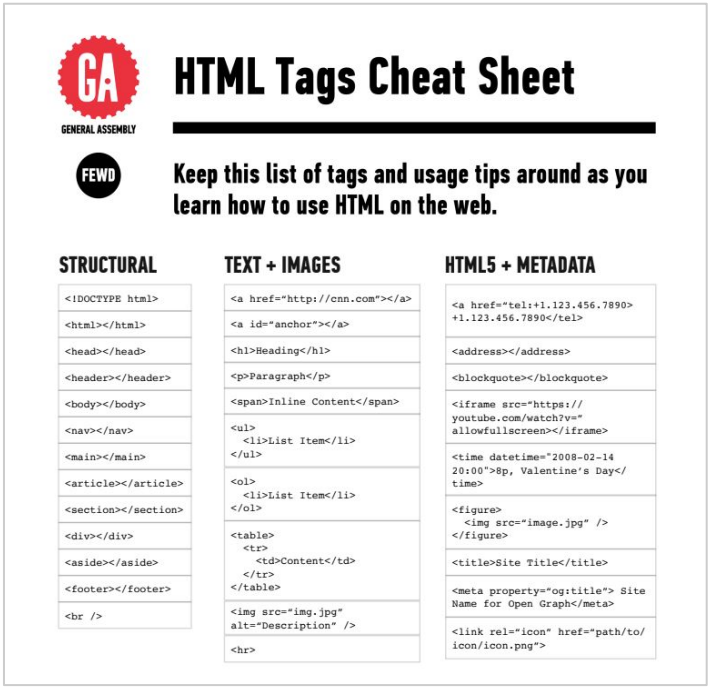
Cheat Sheet: HTML Elements

We're providing a handy cheat sheet to reference HTML elements here.

The "Structural" and "Text/Image" lists in the cheat sheet are a good place to start when learning HTML. Forms will come later.



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FEWD

HTML Tags Cheat Sheet

Keep this list of tags and usage tips around as you learn how to use HTML on the web.

STRUCTURAL

```
<!DOCTYPE html>
<html></html>
<head></head>
<header></header>
<body></body>
<nav></nav>
<main></main>
<article></article>
<section></section>
<div></div>
<aside></aside>
<footer></footer>
<br />
```

TEXT + IMAGES

```
<a href="http://cnn.com"></a>
<a id="anchor"></a>
<h1>Heading</h1>
<p>Paragraph</p>
<span>Inline Content</span>
<ul>
  <li>List Item</li>
</ul>
<ol>
  <li>List Item</li>
</ol>
<table>
  <tr>
    <td>Content</td>
  </tr>
</table>
<img src="img.jpg"
alt="Description" />
<hr>
```

HTML5 + METADATA

```
<a href="tel:+1.123.456.7890>
+1.123.456.7890</tel>
<address></address>
<blockquote></blockquote>
<iframe src="https://
youtube.com/watch?v="
allowfullscreen></iframe>
<time datetime="2008-02-14
20:00">8p, Valentine's Day</
time>
<figure>
  <img src="image.jpg" />
</figure>
<title>Site Title</title>
<meta property="og:title"> Site
Name for Open Graph</meta>
<link rel="icon" href="path/to/
icon/icon.png">
```

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Partner Exercise:

Let's Recreate This Slide in HTML!

10 minutes

Hypertext Markup Challenge

Using the following HTML tags, recreate the contents of this slide, not including the teal title portion. Tags you should use include:

- `<h1>`
- `<p>`
- `<ul>`
- `<li>`

Guided Walk-Through:
Press Release

Let's make a press release together! We'll take plain old text and apply HTML tags to define certain sections according to their role in the document.

Starter code:

https://codepen.io/GAmarketing/pen/YzzLyVp

Solution code:

https://codepen.io/GAmarketing/pen/YzzLyZG

Partner Exercise:

Kasserole

30 Minutes

Your goal is to experiment with formatting content in HTML. Fork the CodePen as your own. Then, code away! Add the hyperlinks properly, reference the image, create metadata, and get a real webpage going.

Starter code:

https://codepen.io/GAmarketing/pen/RwwyPLw

Solution code:

https://codepen.io/GAmarketing/pen/MWWGwoO

Solo Exercise:

Cookie Time

30 Minutes

Follow the directions in the CodePen to add HTML tags to the given document. Think about the common tags we've seen. You can also sneak a peek at the CSS for a glimpse ahead at how style is applied to specific tags!

Starter code:

https://codepen.io/GAmarketing/pen/abbGvNe

Solution code:

https://codepen.io/GAmarketing/pen/jOOxbMK

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Key Takeaways

HTML Is Content

- **Tags** define and describe the content on a webpage.
- Elements are **related** to each other via parent, child, and sibling relationships.

For Next Time

Style!

- CSS will add style to our HTML elements.
- CSS rules use selectors to select specific HTML tags to style.

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