INTRO TO CODING: HTML & CSS

Grab a seat… Starting around 6:05

Instructor: Ben Austin

Our Goal

By the end of this workshop, our goal is to build a simple **responsive** web page.

ga.co/intro-to-coding

DEVELOPMENT PROCESS

Front-End vs. Back-End Web Development

The development process can be broken into two areas:

Front-End Web Development

- How things look to the user
- Involves: images, content, structure
- HTML, CSS, and JavaScript

Back-End Web Development

- How things work
- Involves: data and site navigation
- Ruby, PHP, C++, Java, etc.

TOOLS WE'LL BE USING

Text Editor

For this workshop, we'll be using **Sublime Text**

- It's free
- Provides syntax highlighting, code hinting, auto completion, and a lot of great features geared towards writing code
- Word, Pages, and any WYSIWYG editor is NOT suitable for code!

Browser

We recommend using **Google Chrome**.

It’s free and provides many developer-friendly tools!

Try opening up the “Chrome Inspector Tool” (on Mac, **option + command + i**; on PC, **F12, ctrl + shift + i**

Getting Started

1. Type this URL into your browser: **ga.co/2jUvR33**
2. Extract the folder that downloads:
   a. On a Mac: double click on the zip file and it will extract
   b. On Windows: open the zip folder and hit ‘Extract all’ in the menu bar
3. Open Sublime Text 3
4. Drag the entire folder you unzipped onto the Sublime Text window

HTML

HyperText Markup Language

Think of HTML as...

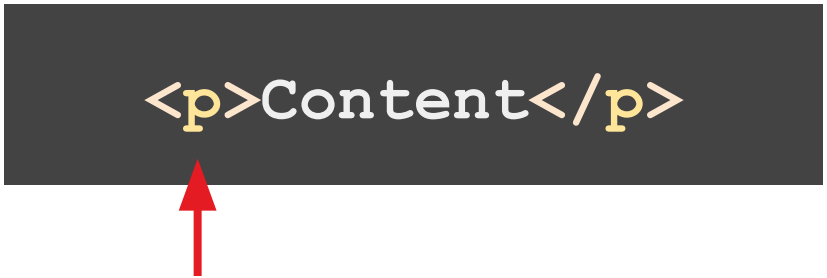
A language used to describe the **content** and **structure** of our documents

A Typical HTML Tag

```
<p>Content</p>
```

The element above represents a paragraph.

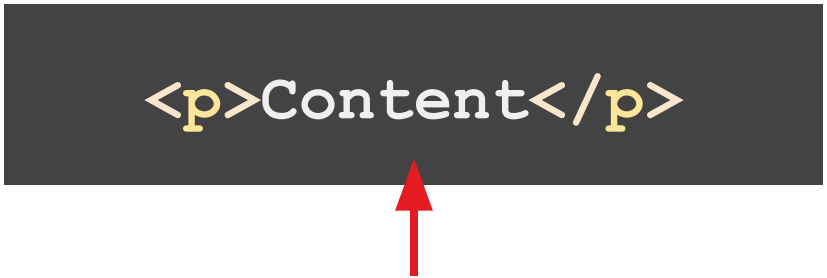
A Typical HTML Tag



This is the **opening tag**.

HTML tags always start with “**<**” and end with “**>**” characters.
Between the brackets, tags always starts with a tag name, in this case ‘p’ for *paragraph*.

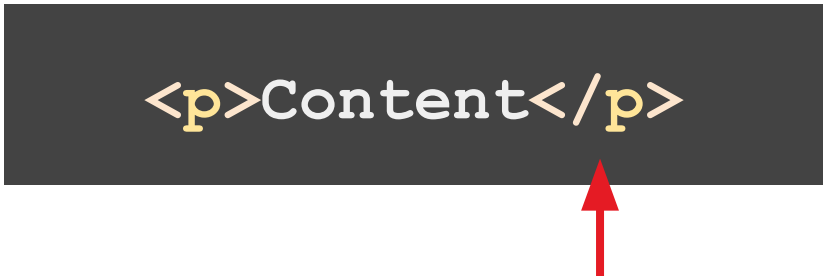
A Typical HTML Tag



This is the **content of the element**.

The content appears between the opening and closing tags. This is the content that will appear on your page.

A Typical HTML Tag



This is the **closing tag**.

Most, but not all, HTML tags will have a closing tag.
Closing tags will always start with a forward slash (**/**) followed by the tag name.

Elements Without Closing Tags

```
<img src="picture.jpg" />
```

Some tags **don't** have closing tags.

Tags such as `<img>` do not enclose any content, so they do not need an opening and closing.

HTML Attributes

```
<img src="picture.jpg" />
```

This tag also includes an attribute. The image requires an attribute that points to an image file, which will load onto the web page.

Attributes provide further additional instructions and always take the form of `key="value"`.

HTML Attributes

Here's another example of an attribute providing further instructions.

This is a **hyperlink** in HTML.

Hierarchy in HTML

```
<section>
   <p>
      Something about news:
      <a href="http://www.cnn.com">CNN</a>
   </p>
</section>
```

HTML tags can be nested inside one another, this represents hierarchy in the document.

We describe the hierarchy as **parent** and **child** relationships.

Quick Review

- HTML tags usually open ** ** and close ** **
- Use self-closing tags when there is no content to display
- Attributes <img **src="picture.jpg"**> provide additional instructions
- HTML is hierarchical

HTML Shell

```
<!DOCTYPE html>
<html>
   <head>
      <title></title>
   </head>
   <body>

   </body>
</html>
```

The <head>

- Can be thought of as the **brain** of the document
- Its properties are not part of the *physical* layout of the page
- Holds all of the properties
    - Ex. the document's title

The <body>

- Represents the area from the top left corner of our page to the bottom right corner
- Holds the *physical* structure of the page
- Basically all of our work today will be in the body of the document

Adding Content to Our Page

```
<!DOCTYPE html>
<html>
   <head>
      <title></title>
   </head>
   <body>
      <p>Content</p>
   </body>
</html>
```

Common Element Types

Text Wrappers:

`<p>` `<h1> ... <h6>`

Tags that require attributes :

`<a>` `<img>`

Semantic Block Containers:

`<header>` `<footer>` `<main>` `<section>`
`<article>` `<nav>` `<aside>` `<div>`

LET'S GET WRITING!

CSS

Cascading Style Sheets

Think of CSS as...

Rules that specify how your elements should **appear** on your page.

Communicating with HTML

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

We can create a connection between our HTML file and our CSS file(s) by using the **<link>** tag in the **<head>** of our document.

SublimeText helps you write this! Type: **<link** and hit tab!

CSS Syntax

In this example **rule** we can see:

- 1 CSS **selector**
- 1 **Declaration block** denoted by the opening **{** and closing **}**
- 2 **Declarations**, each formed with a structure of **property: value;**

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

CSS Declarations

Properties:
Predefined terms that will change the way elements look and behave.

Values:
Properties can have either specific possible values or take a broad range of possible values.

Declaration:
Together, each **property-value pair** form a declaration.

```
p {
   font-size: 14px;
   color: black;
}
```

Selecting an HTML Element

The rule's **selector** will define which **elements** in the HTML document will have this rule's declarations applied.

Example: Selecting by HTML Element

HTML:

```
<p>
   Learning tonight!
</p>
```

CSS:

```
p {
   text-align: center;
}
```

Applying a Class Attribute

```
<div class="box">
    <p>I'm shaped like a box</p>
</div>
```

In HTML, we can apply a **class attribute** to an element. This allows us to group together similar elements for shared styling and interactivity.

Selecting an Element by Class

```
.box {
   width: 100px;
   height: 100px;
   background-color: green;
}
```

Custom rules can be written using the **class selector**. In order to apply a class, we add a class attribute to our HTML element.

Class selectors utilize dot (**.**) notation

Example: Selecting by Class Attribute

```
<h1 class="highlight">
   Hello there!
</h1>
```

```
.highlight {
   background-color: yellow;
}
```

LET'S STYLE THINGS UP!

Please take 2 minutes and share your feedback

www.ga.co/surveychi

Works on mobile too!

Thank you!

Q&A

Next Steps

Interested in experiencing more of our in-class offerings or events?

Check out ga.co/chicago or follow us on social!

@GeneralAssemblyChi

@GA_Chicago

@GA_Chicago

Want to apply for one of our courses?

- Get in touch with our admissions team and they'll help you determine the right path for you!
- chicago@ga.co

Coming up: ga.co/chicago

Python Programming 101	8/2	https://generalassemb.ly/education/python-programming-101/chicago/37498
Code in One Day: HTML & CSS Crash Course	8/5	https://generalassemb.ly/education/code-in-one-day-html-css-crash-course/chicago/37355
Day in the Life of a Web Developer	8/22	https://generalassemb.ly/education/a-day-in-the-life-of-a-web-developer-43dc391c-c779-433d-8f60-343d974ee36b/chicago/38990
Break Intro Coding	8/28	https://generalassemb.ly/education/break-into-coding/chicago/39197
Javascript 101	9/5	https://generalassemb.ly/education/javascript-101/chicago/39194

Our Courses

	Front-End Web Development	Javascript Development	Web Development Immersive
Length	10 weeks, 2 evenings per week	10 weeks, 2 evening per week, online	12 weeks, full-time
Next Lesson	July 31 - Online Sept 25 - In-Person	August 14 - Online	September 11
Hours	~70 hours	~50 hours	Over 500 hours
Outcome	Learn to code beautiful web pages	Learn to animate web pages using Javascript	Get the skills and resources to launch a new career
Tuition	$3,950	$3,950	$13,950

Thank You!

Have any questions about our courses?

Chicago@ga.co + ga.co/chicago

BenjaminBoydAustin@gmail.com

linkedin.com/in/bbaustin