

Front End Development

Session 1

Diving Into Web Development with ***HTML***



Today's Goals

In today's session, we will:

-  Introduce ourselves and get to know each other!
-  Discuss our course tools, structure, and policies
-  Explore a few possible careers and creative applications for code
-  Define some basic web-development lingo
-  Examine web page structure using our browser console
-  Create our own simple HTML web page

Introductions & Course Structure





**Open up chat and answer the
following questions!**

What is your name?

Where are you from?

What's one thing you want to learn in this program?

If you weren't on this call, what would you be doing?

What's your favorite food?



Course Tools

Systems Check!

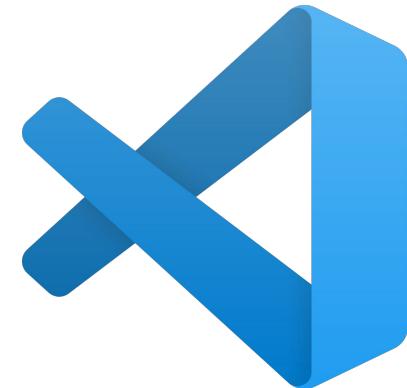
We'll use a few tools in this course. If you haven't already, please download and install them now!



Chrome



Slack



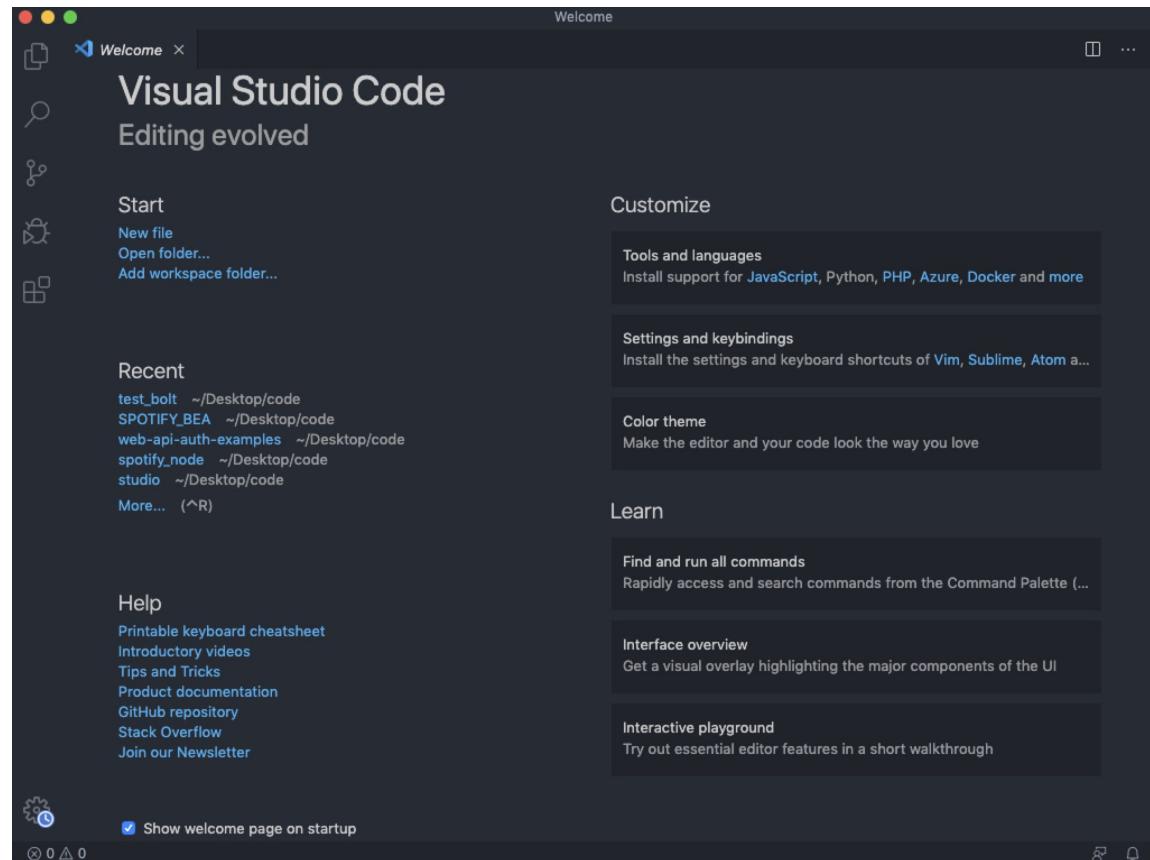
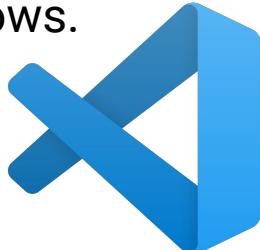
Visual Studio Code

VS Code

Visual Studio Code is an easy to use **code editor**.

We'll use this to **read, write, and share our code** while we work on class activities and projects.

This is a **free tool** that can be installed for Mac and Windows.



Google Chrome

In addition, we'll use Google **Chrome as our preferred web browser.**

Why Chrome? Chrome includes a handy set of Developer tools that we'll use to learn how websites work!



A screenshot of the Google Chrome browser window displaying the Google homepage. The developer tools are open, specifically the Elements tab, showing the HTML and CSS code for the page. A detailed view of the Google logo is shown with a bounding box highlighting its dimensions: width 649 and height 697. The browser's address bar shows 'google.com'. The search bar contains the word 'Google'. Below the search bar are the 'Google Search' and 'I'm Feeling Lucky' buttons. The bottom right corner of the browser window features the classic 'MOTOGP' logo.

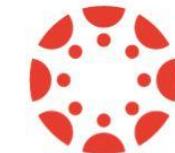
How Will We Communicate In Class?

Class communication tools:

zoom



slack



canvas

What Are “Breakout Rooms”?

Throughout the course, we'll be using a Zoom feature called “Breakout Rooms”! We'll use these to jump into small groups and complete activities.

X Breakout Rooms



The host is inviting you to join Breakout Room:
Breakout Room 1

Join **Later**

How To Access Slack

01

Check your student email for an invitation link to our course workspace!

02

If you don't see an email invite, you can also join by clicking our registration link in Canvas.

03

Once you're logged in, set up your Slack Profile using a picture, your full name, and a fun fact!

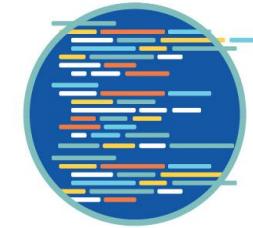
04

Slack offers a desktop and mobile app. It's not required, but we recommend using both in order to stay connected during class!



Our Program in Canvas

Finally, we'll be using **Canvas** to access daily session instructions, download activity files, and review hackathon requirements.



Let's take a minute to make sure everyone can access and navigate our lesson materials in Canvas!

ACCESS CHECK (X)

Let's recap: can everyone access our course materials?

Slack

- Download Slack
- Join our Slack workspace at: [\[link\]](#)
- Create a profile with a suitable picture and your full name

Zoom

- Make sure to have your camera and headphones/speaker s turned on
- Edit your Zoom profile with your name!

Canvas

- Sign into our course Canvas page at: [\[link\]](#)
- Download the files we'll use today.
- You can look here for instructions and reminders!

Questions?





Working
Together

Class Participation with Slack

Actively participate in our class sessions by answering questions, following along with activities, and contributing to conversations in the Slack channels:

- 01 #Announcements
- 02 #Class Activities
- 03 #Shared Resources
- 04 #Ask A Classmate
- 05 #Help/Tech Support



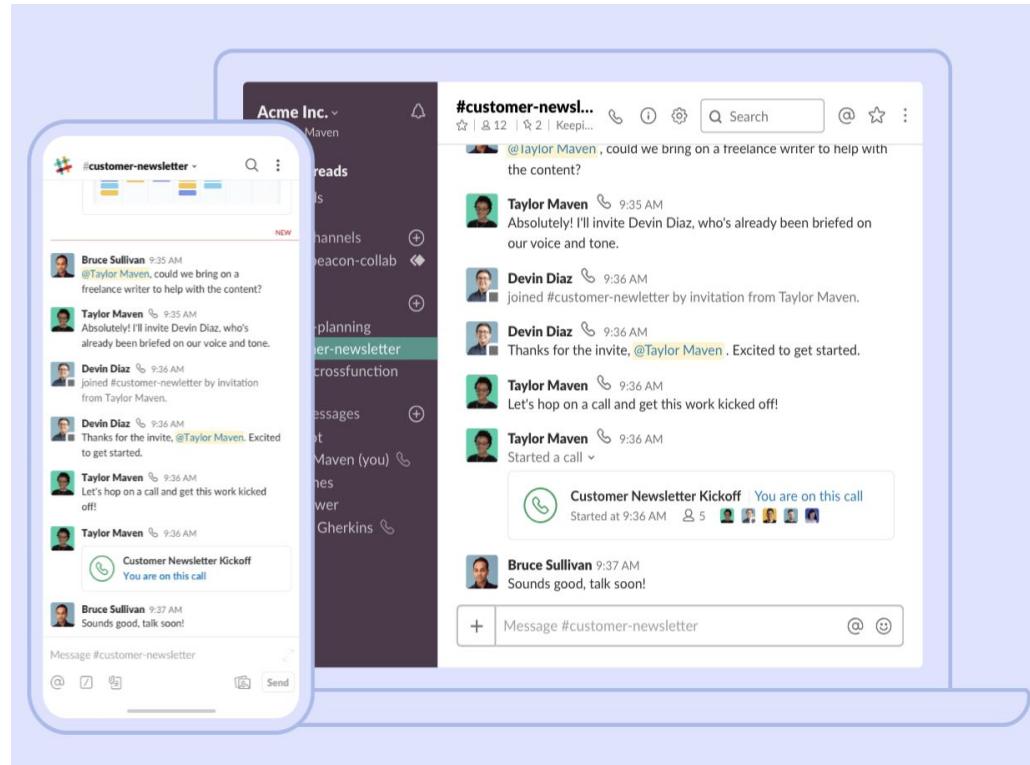
Slack Code of Conduct

When communicating with Slack,
keep these rules in mind:

A *Keep it positive*

B *Keep it clean*

C *Keep it helpful!*



Best Practice 1: Always Mute

Please keep your microphone muted, unless you are called on or your host asks for feedback/communication.



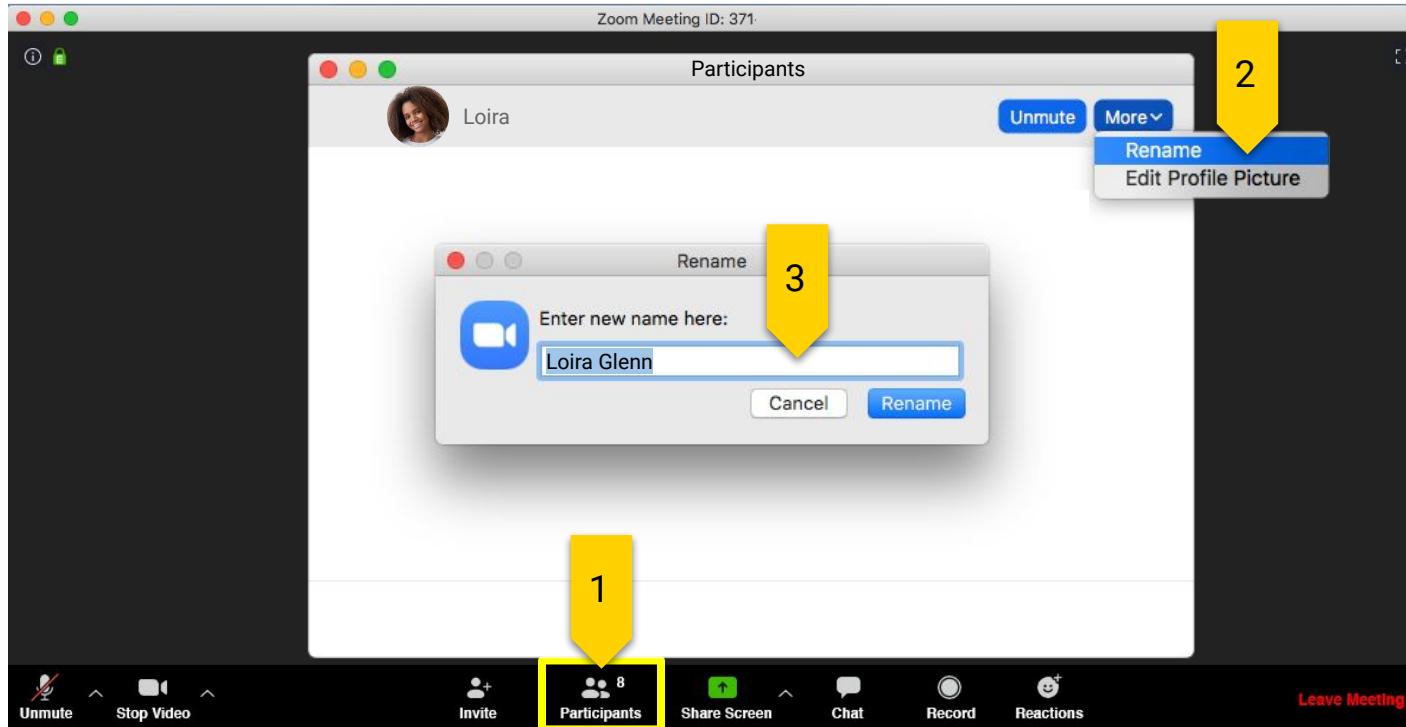
Best Practice 2: Turn Your Video On

Kindly turn your video on so we can see you.



Best Practice 3: Update Your Name

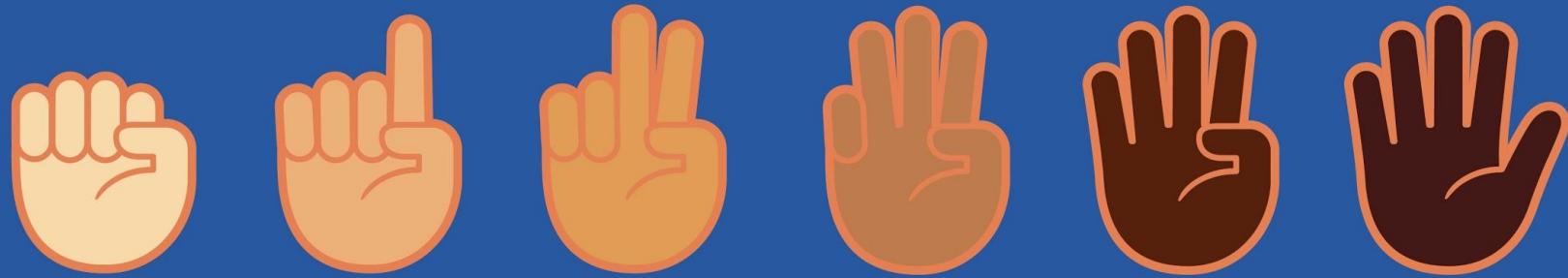
Please update your name under the Zoom *Participants* tab to your full name.



Best Practice 4: Actively participate!

We ask that you actively participate in the session by answering questions and being a part of the conversation in the Zoom chat.





Fist to five

Everyone clear on our code of conduct?

A large yellow circle is centered on a dark blue background. The circle's diameter spans from approximately the 285 mark on the left axis to the 655 mark on the right axis.

Program
Experience



I ❤️ CODING

Our mission is to help you understand, engage with, and enter **the world of code!**

We'll do that by giving you a three week crash course in **front-end web development** that will help you learn about the skills and opportunities available in tech.

By the end of this program, you'll assemble your own **professional portfolio** that can be applied to future jobs or college applications!

What Will You Learn?

By the end of this course, you will be able to:

- Plan website development with sitemaps and wireframes
- Build and style web pages with HTML and CSS
- Explain introductory programming concepts with JavaScript
- Enhance web pages with Bootstrap, Javascript, and jQuery
- Create and customize interactive games and web apps
- Create your very own online Professional Portfolio!

What Topics Will We Cover?

Our Program is divided into **3** weekly modules:

Week 1	Week 2	Week 3
HTML/CSS	JavaScript/jQuery	Group Projects
Project 1: Build your portfolio	Project 2: Build some games!	Project 3: Present your work!
Let's build some websites	Let's make things interactive	Build and share something awesome

What Will We Build?

During our program, you'll complete three different projects, providing you with a chance to practice and apply your new skills while building something awesome!

Project 1: Portfolio

Assemble your own professional homepage!

You can use this site to showcase your work with images, descriptions, and links to projects and exercises completed in this class and beyond!

Project 2: Games!

Use Javascript to develop simple games that can run in your web console, like Hangman or Paper/Rock/Scissors.

Afterwards, you'll host these in your online portfolio!

Project 3: Group

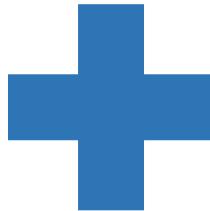
Work in groups on a project of your choice!

Your instructional team will help you select a suitable topic.

Examples include interactive trivia games or websites for nonprofit organizations.

How Will We Spend Our Time?

Monday/Wednesday/Friday:
Class Days



Tuesday/Thursday:
Project Days



Class days will formally introduce you to code and concepts through instructor explanations, class discussion, and hands-on practice exercises.

Project days will involve self-paced activities, while also giving you a chance to work with your classmates on projects!

What is Our Weekly Schedule?

Monday 7/6	Tuesday 7/7	Wednesday 7/8	Thursday 7/9	Friday 7/10
Lesson Day: Diving Into Web Development with HTML	Project Day: Planning Our First Website	Lesson Day: Coloring Outside the Lines with CSS	Project Day: Let's Add Some Style!	Lesson Day: Pulling Ourselves Up By Our Bootstraps
Monday 7/13	Tuesday 7/14	Wednesday 7/15	Thursday 7/16	Friday 7/17
Lesson Day: Laying the Foundations with Javascript	Project Day: Rock, Paper, Console!	Lesson Day: Getting Loopy with Javascript	Project Day: Let's Play a Game!	Lesson Day: Pulling It Together with JQuery
Monday 7/20	Tuesday 7/21	Wednesday 7/22	Thursday 7/23	Friday 7/24
Project Day: Collaborating with Github	Project Day: On Your Mark, Get Set, Code!	Project Day: Hackathon Check-In	Project Day: Putting On the Finishing Touches	Project Presentations: Time To Present Your Work!

Here's What We'll Need From You

Graduation Requirements: In order to complete our program and earn your certificate, you'll need to:

01

- **Attend** and **participate** in all of our daily class discussions and activities.
- Please **be on-time, prepared to work** at your computer with your camera and headphones/speakers on.

02

- Work with your groups to **complete** and **present** your hackathon project!



Attendance Rules



If you need to miss a session, please alert your instructional team ahead of time.



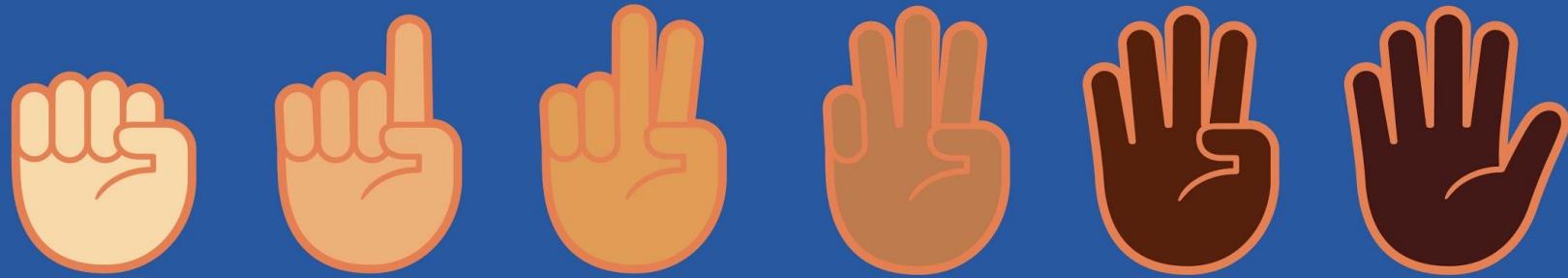
Our program moves quickly! If you **miss a session**, be prepared to **work outside of class** in order to make up any relevant activities or projects.



Missing more than 1 session without warning will prevent you from completing the program.



Don't forget: we're here to help! Please get in touch with us if you have any questions or concerns.



Fist to five

Everyone clear on our attendance policy?



The Path
of Learning

Nothing comes easy.
As students, you face three
HUGE obstacles.

1. The Great Doubt

**My code doesn't work and I
don't know why.**

**My code works and I don't
know why.**



2. The Great Confusion

Maybe I'm just dumb

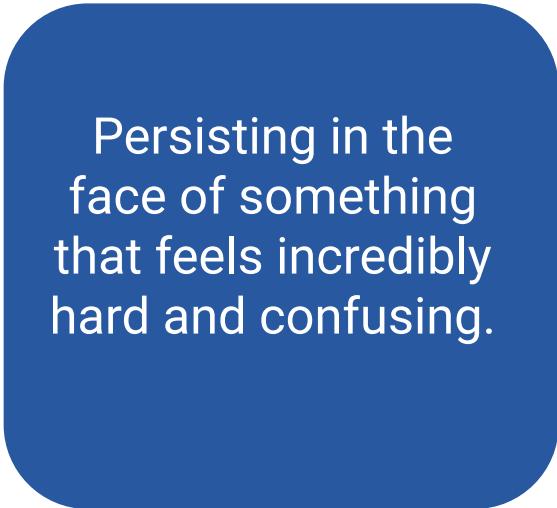


3. The Great Distance



Nothing Comes Easy

Learning to code requires two things:



Persisting in the face of something that feels incredibly hard and confusing.

Nothing Comes Easy

Learning to code requires two things:

Persisting in the face of something that feels incredibly hard and confusing.

Maintaining the self-confidence necessary to believe that **YOU CAN DO THIS.**





You can't tell whether you're learning something when you're learning it—in fact, learning feels a lot more like frustration.

—Jeff Dickey, author of Write Modern Web Apps

Advice for the Journey

Throughout this program, remember to:

01

Work hard!

02

Trust yourself

03

Appreciate your successes



And Remember...

If you want to go fast, go alone. If you want to go far, go with a team.



Rise to the Challenge

The Path of Learning has many obstacles. Keep these things in mind:

01

Trial and Error

Learning to code is like learning a new language. You may get frustrated but the more you practice, the more confident you'll feel.

02

Imposter Syndrome

It's totally normal to feel doubt or discomfort when learning new things. Just remember: everyone has to start somewhere.

03

Teamwork

Remember, we're all learning this together!

Questions?





Welcome to
the Modern
Web

What do you think
"Front End Development" is?





Instructor Demonstration:

Instructor Demo:

Welcome to the
Modern Web

Suggested Time:
15 minutes



Possible Careers

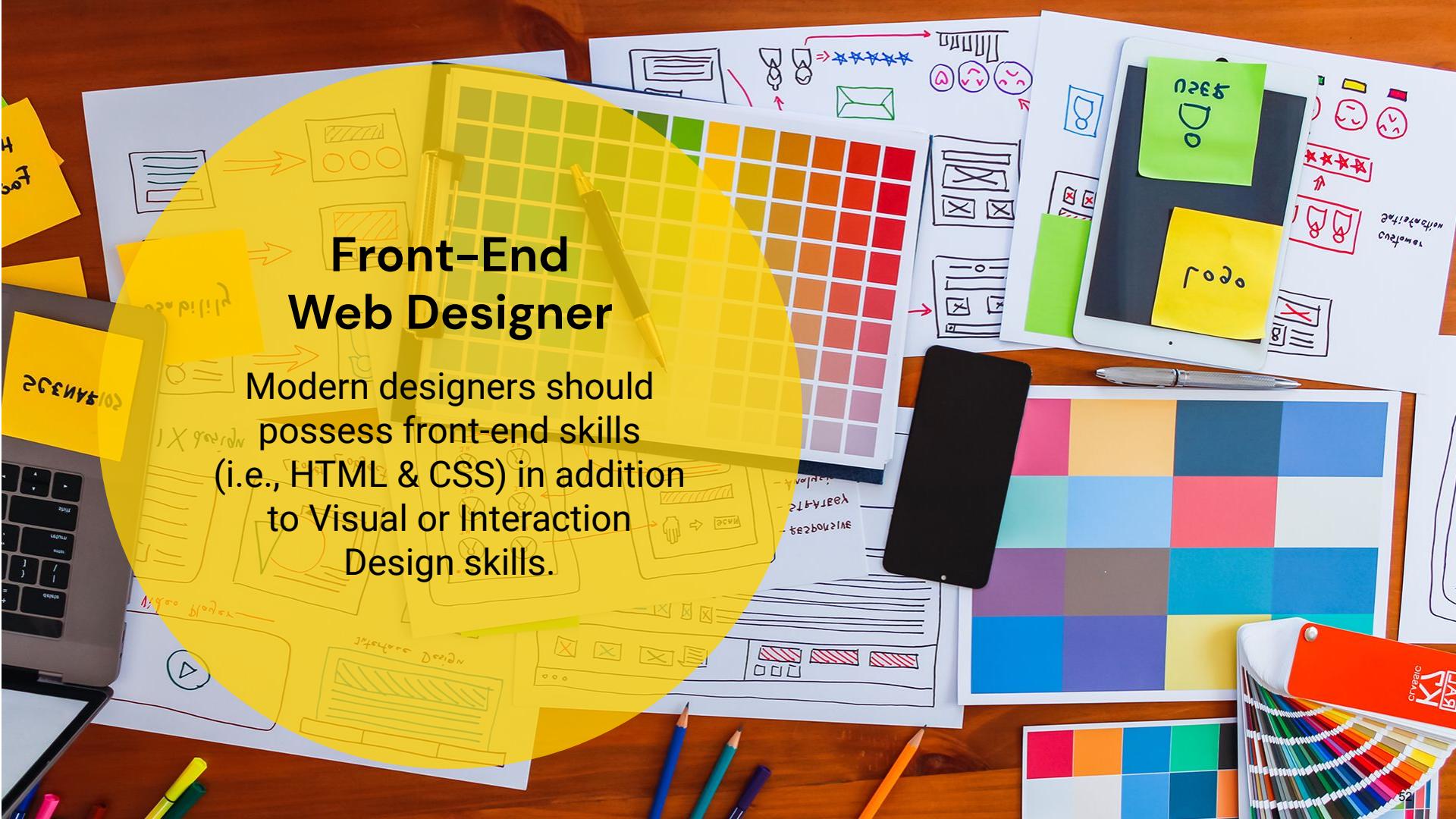
Front-End Developer

A developer who is skilled at HTML, CSS, and JavaScript and can implement these technologies across the web.



Front-End Web Designer

Modern designers should possess front-end skills (i.e., HTML & CSS) in addition to Visual or Interaction Design skills.



CSS/HTML Developer

A developer who excels at using HTML and CSS to create newsletters and websites. They may collaborate with visual designers to inform specifications or convert designs into real working websites!

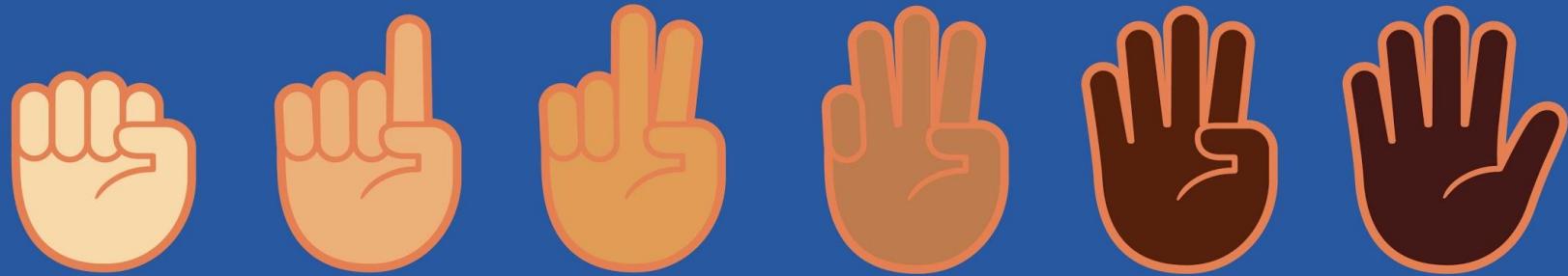
```
1<div class="wrap">
2  <div id="content">
3    <header id="topnav">
4      <ul>
5        <li class="active"><a class="scroll" href="#">Home</a></li>
6        <li><a class="scroll" href="#service">Service</a></li>
7        <li><a class="scroll" href="#product">Products</a></li>
8        <li><a class="scroll" href="#portfolio">Portfolio</a></li>
9        <li><a class="scroll" href="#team">Team</a></li>
10       <li><a class="scroll" href="#contact">Contact</a></li>
11     <div class="clear"></div>
12   </ul>
13 </header>
14 <div class="logo">
15   <a href="/">
16     
17   </a>
18 </div>
19 <div id="main">
20   <div id="left">
21     <img alt="Left sidebar image" data-bbox="190 100 350 350"/>
22   </div>
23   <div id="right">
24     <img alt="Right sidebar image" data-bbox="350 100 510 350"/>
25   </div>
26 </div>
```



Mobile Front-End Developer

A developer who has experience creating sites for mobile and tablet devices (either natively or in the browser). And there's a large market for developers who can help convert existing sites to modern accessibility design standards!





Fist to five

Anatomy of A Website

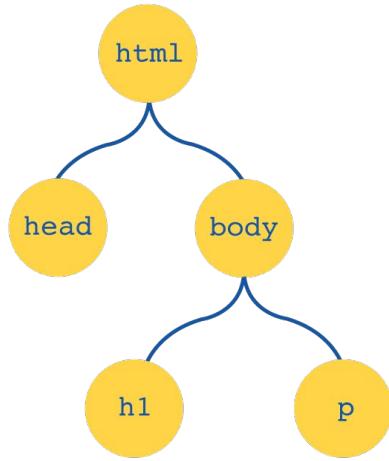


Instructor Demonstration:
Instructor Demo:
What Webpages
Really Look Like

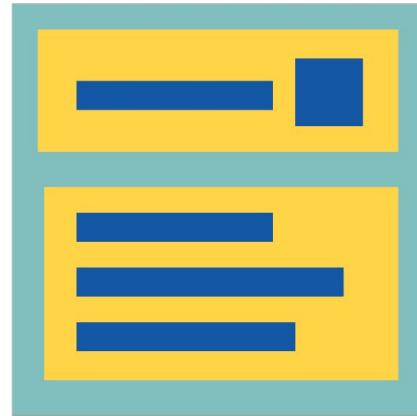
Suggested Time:
15 minutes



What Makes a Website?



HTML



CSS

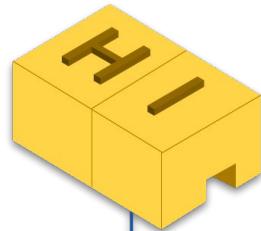


JavaScript



HTML stands
for “Hypertext
Markup
Language”

Metal type



Printing press

Printed page

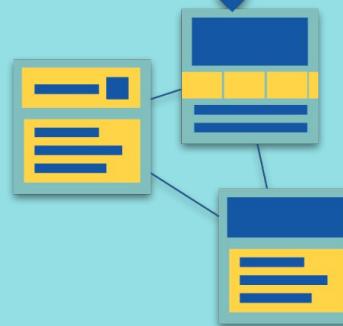


Internet



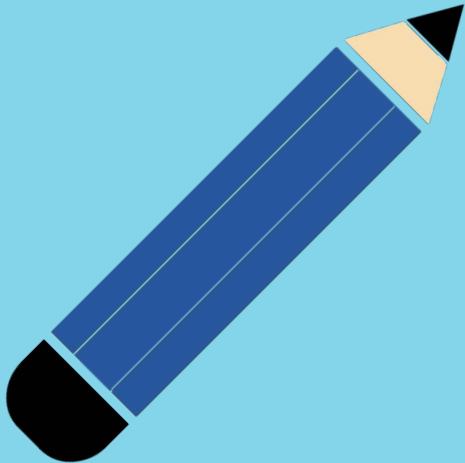
HTML & CSS

Book



Web page

Website



**Activity instructions are in Canvas for:
Examining Wikipedia**

Suggested Time:





Questions?





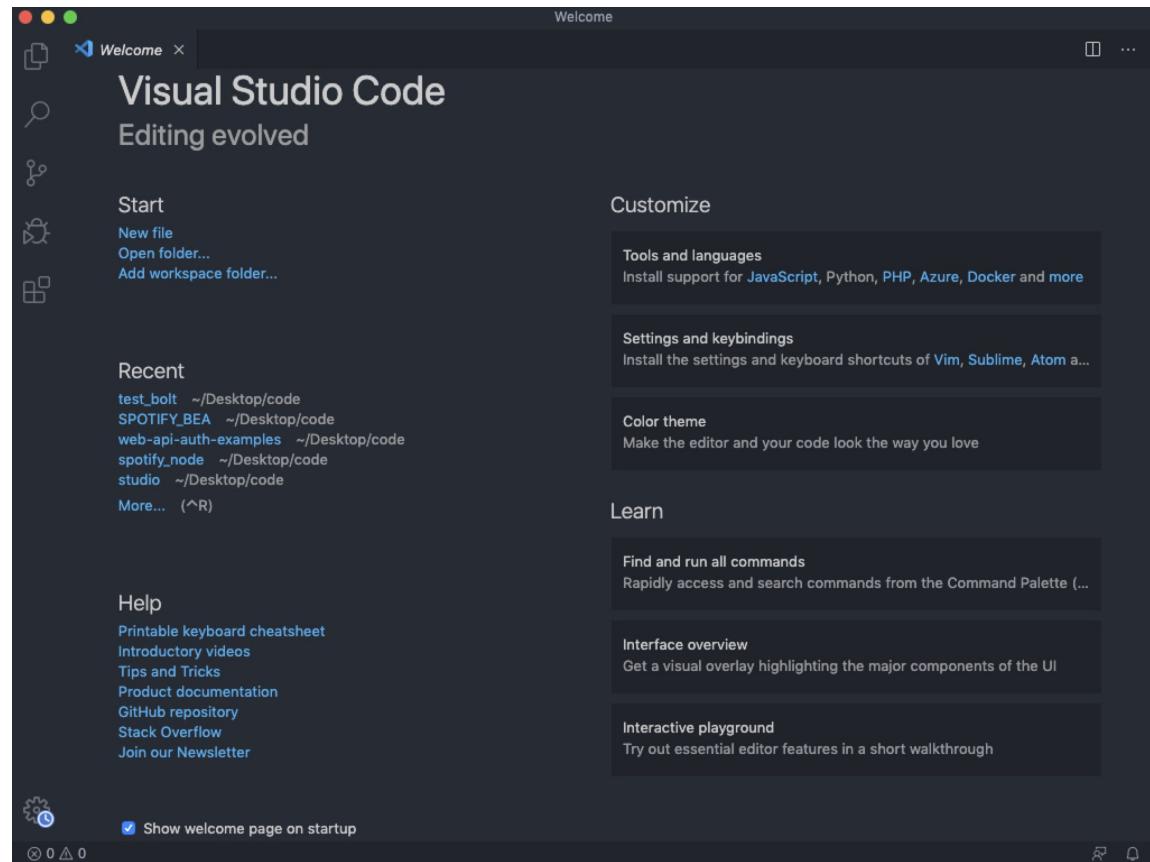
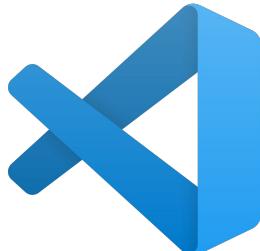
Hello,
HTML

Let's Get Coding!

From here on out, we'll be using **Visual Studio Code**.

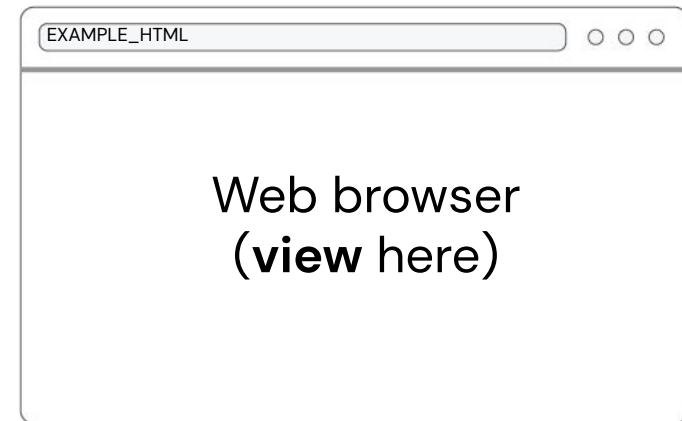
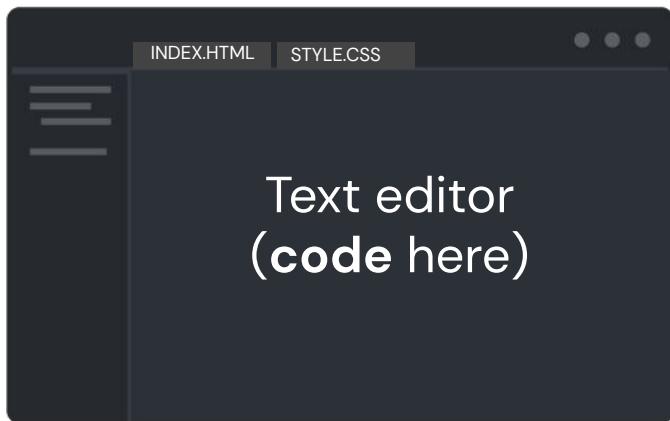
VS Code is an **integrated development environment (IDE)**.

We'll use VS Code to **read, write, and share our code.**



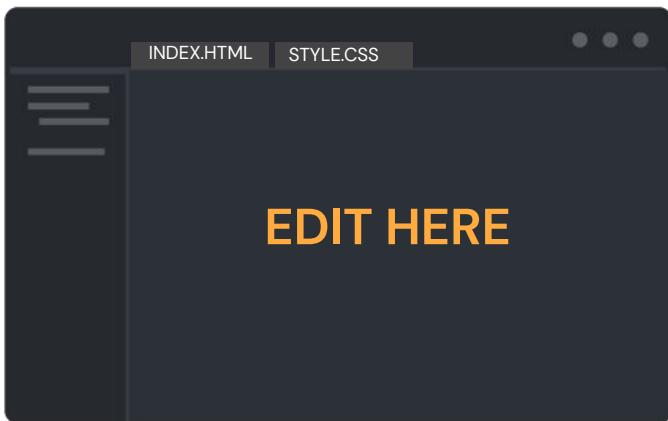
How Do Text Editors Work?

Write and Preview Your Code



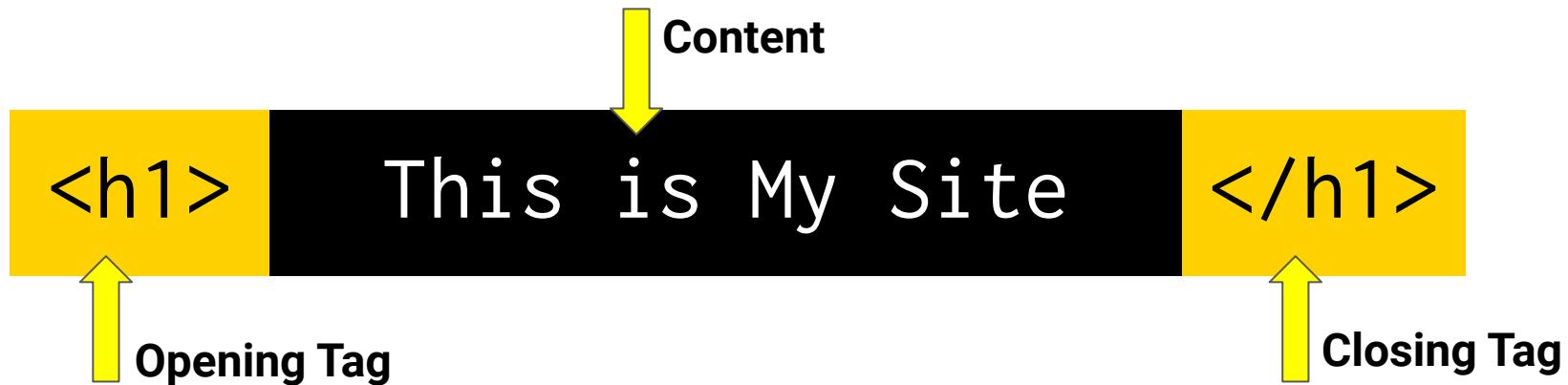
How Do Text Editors Work?

Revise and Reload Your Code



Hypertext Markup Language = HTML

So What is HTML?



Doctype <!DOCTYPE>

All HTML documents must start with a <!DOCTYPE> declaration.



The declaration is not an HTML tag. It is an "information" to the browser about what document type to expect.

```
<!DOCTYPE html>
<html>
<head>
<title>Title of the document</title>
</head>

<body>
The content of the document.....
</body>

</html>
```

Title <title>

<title>



https://www.website.com/home/

CODING IS FUN!

01

<title> defines a title in the browser tab

02

<title> provides a title for the page when it is added to favorites

03

<title> displays a title for the page in search engine results

```
<head>
  <title>CODING IS FUN</title>
</head>
```

Head vs. Body

Head

The `<head>` element is a container for metadata (data about data) and is placed between the `<html>` tag and the `<body>` tag.

```
<html>  
  
  <head>  
    <title>Page Title</title>  
  </head>  
  
  <body>  
    The content of the document.....  
  </body>  
  
</html>
```

Body

The `<body>` element contains all the contents of an HTML document, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.

```
<html>  
  
  <head>  
    <title>Page Title</title>  
  </head>  
  
  <body>  
    The content of the document.....  
  </body>  
  
</html>
```

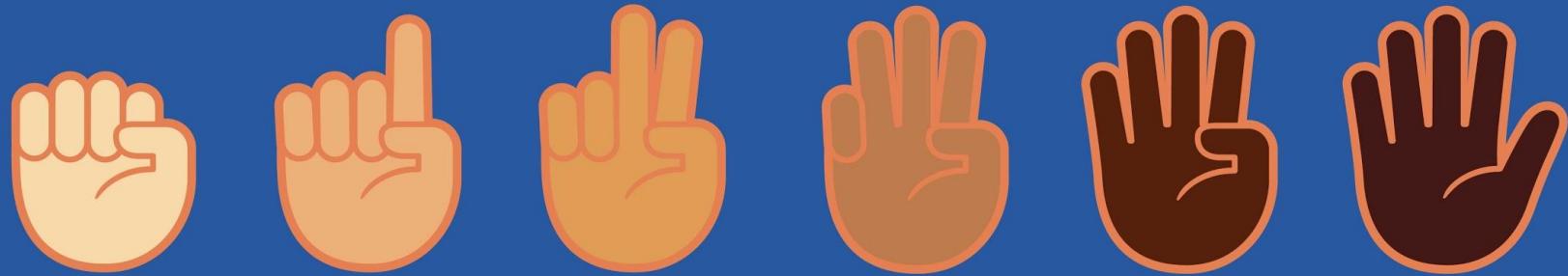
HTML Comment Tags <!-->

HTML comments are not displayed in the browser, but they can help document your HTML source code.

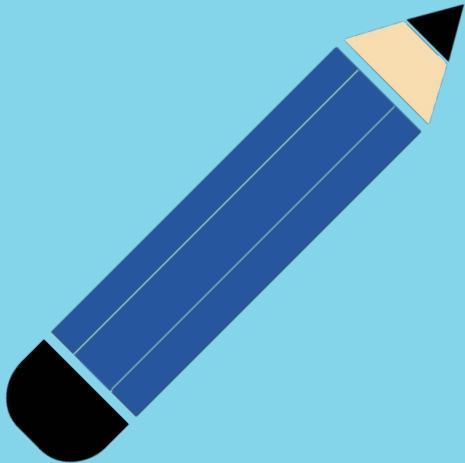
```
<!-- This is a comment -->
```

```
<p>This is a paragraph.</p>
```

```
<!-- Remember to add more information here -->
```



Fist to five



**Activity instructions are in Canvas for:
My First HTML Page**

Suggested Time:
10 minutes





Questions?



A large yellow circle is centered on a dark blue background. The circle's diameter spans from approximately the 285 mark on the left axis to the 655 mark on the right axis.

**Let's Talk
Tags**

Header Tags

Header Tags

```
<h1> </h1>
```

Heading 1 (Largest heading)

```
<h2> </h2>
```

Heading 2 (Next largest heading)

```
<h3> </h3>
```

Heading 3

Container Tags

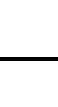
Container Tags	
<html> </html>	Wraps the entire page
<head> </head>	Wraps the header of the page
<body> </body>	Wraps the main content
<div> </div>	Logical container
<p> </p>	Wraps individual paragraphs

Additional Tags

Additional Tags	
	bold
	emphasis
	images
<a href>	links
	list items
<title>	title
 	line break
<table>	tables
<!-- -->	comments

Header Tags <h1>

<h1>



<https://www.website.com/home/>

Interneting is Easy!

First, we need to learn some basic HTML.

<h2>



Headings

Headings define the outline of your site.

There are six levels of headings.

HTML Tag < p >



```
<p>
```

```
First, we need to learn some basic HTML.  
</p>
```

List Tags



https://www.website.com/home/

Unordered Lists

- Coffee
- Tea
- Milk

```
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

Ordered List

https://www.website.com/home/

Ordered List

1. Coffee
2. Tea
3. Milk

```
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

Inserting a Link



Line Break



<https://www.website.com/home/>

To force
line breaks
in a text,
use the br
element.

```
<p>To force<br> line breaks<br>  
in a text,<br> use the br<br>  
element.</p>
```



The **
** tag is an empty tag which means that it has no end tag.

Horizontal Line Rule <hr>



Image Formats

Image Format: JPG

The JPG file format is a type of image compression that works best with photographs and complex images.



Image Format: PNG

PNGs support variable transparency, where users can control the degree to which an image is transparent.

Besides transparency PNGs are best for images with type and illustrations.

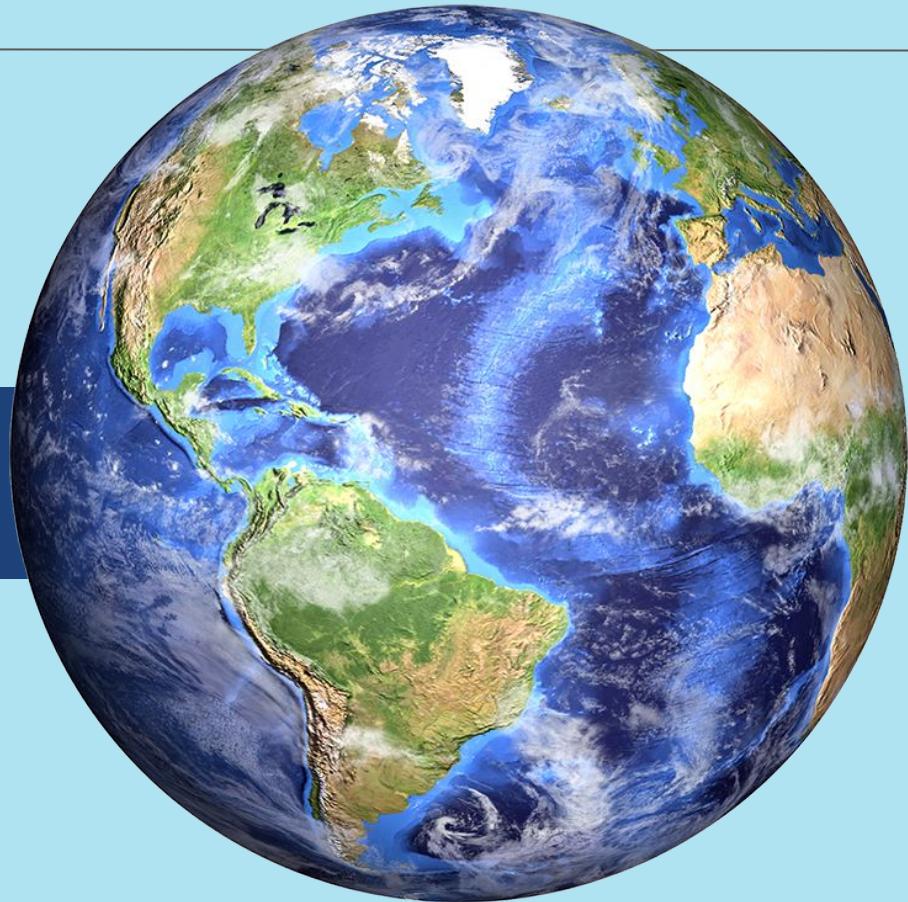


Image Format: SVG

SVG allows you to create very high-quality graphics and animations that do not lose detail as their size increases. This means that with SVG you could create one graphic that looked great on a tiny mobile phone screen or on a 60-inch computer monitor.



Image Format: GIF

GIFs have the unique ability to display a sequence of images, similar to videos, called an animated GIF, which is a series of separate GIF images that are linked together to automatically create motion, or animation.



Inserting an Image

Source Attribute

Tells the web browser
WHERE to find the
image



Alt Attribute

Tells the web browser
what to output if the user
CAN'T SEE the image

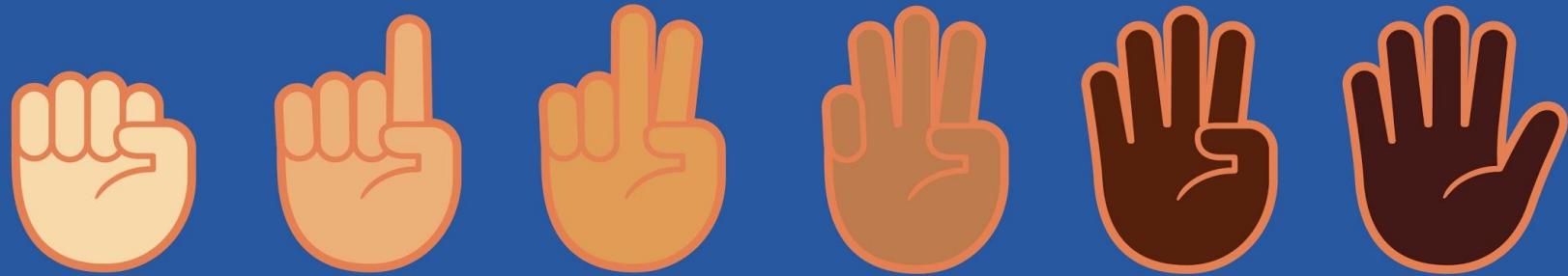


```

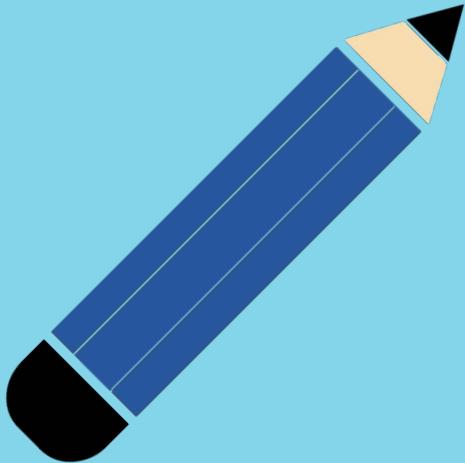
```



The `` tag is an empty tag which means that it has no end tag.



Fist to five



**Activity instructions are in Canvas for:
Building Up HTML**

Suggested Time:
15 minutes





Questions?





**But What
About
Style?**

HTML Style Tags

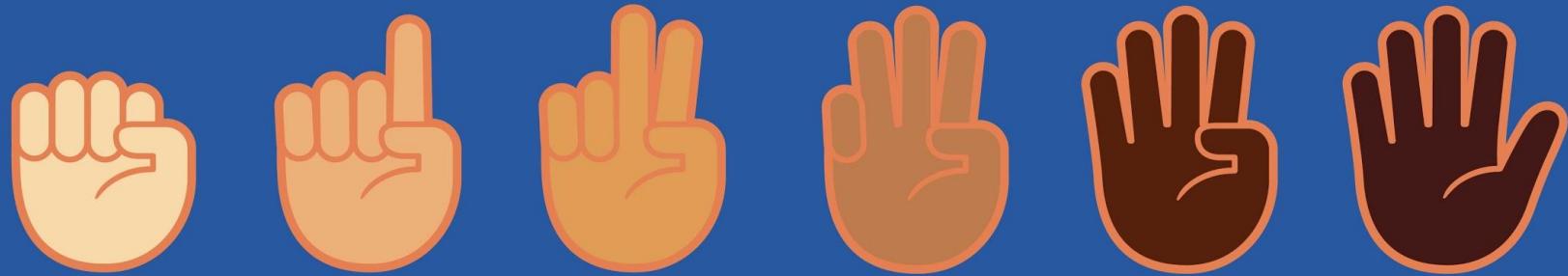


```
<p>You have to <strong>hurry up!</strong></p>
```

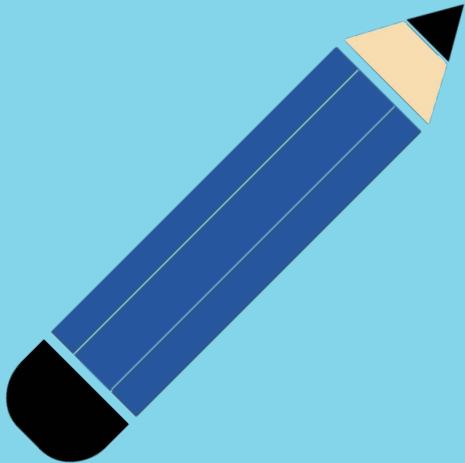
HTML Style Tags



```
<p>You <em>have</em> to hurry up!</p>
```



Fist to five



Activity instructions are in Canvas for: Adding Emphasis

Suggested Time:
10 minutes





Should We Style Our HTML?

Why We Really **Shouldn't** Use HTML Style Tags

- You can use HTML tags to style code - but there is a *better* way.
- Separating **content** and style makes it easier to write and update your code
- Later this week, we'll teach you how to style your HTML with **CSS!**

Questions?





Let's
Recap

Today's Goals

Our objectives for today's session were to:

-  Introduce ourselves and get to know each other!
-  Discuss our course tools, structure, and policies
-  Explore a few possible careers and creative applications for code
-  Define some basic web-development lingo
-  Examine web page structure using our browser console
-  Create our own simple HTML web page

Reflection

What was your favorite part of today's session?

What was the most interesting thing we covered today?

What do you still have questions about?





Sneak Preview

Tomorrow, we'll be walking through **how to use the HTML skills** learned today in order to set up and **host your own web page!**

Questions?



*The
End*