

# HTML



# CSS



## HTML & CSS: LEVEL 1

Instructor: Beck Johnson

Week 1



# INTRODUCTIONS

- Who are you?
- What do you do/study/etc?
- What is your experience with web development?
- What are you hoping to get out of this class?

# CLASS SCHEDULE

- Thursdays from Feb 23 to March 23, from 6:30-9:30pm
- 10 minute break somewhere in the middle
- No grades, no tests
- Questions and feedback highly encouraged!



# COURSE OVERVIEW

- Basic rules of HTML and CSS
- Using CSS to style web pages
- Website structure, navigation and file organization
- Preparing images for use on the web
- Intro to related technologies (Javascript, Git)



# SESSION OVERVIEW

- Code editors and web authoring tools
- Anatomy of an HTML document
- Basic HTML Elements
- Code and file organization
- Build your first webpage!



## ODDS AND ENDS

<https://kweeket.github.io>

Slides, sample files, “homework”, and interesting links will be posted here



# OVERVIEW OF A WEBSITE

# CONTENT, DESIGN, & CODE



## CONTENT

most important part  
of any website



## DESIGN

critical to the best user  
experience



## CODE

brings content and  
design to life





## What am I presenting?

### TEXT

- Articles
- Links
- Lists

### MEDIA

- Images
- Videos
- Audio



## What is the experience?

### **USER EXPERIENCE**

- Layout
- Navigation
- User flows
- Ease of use

### **GRAPHIC DESIGN**

- Colors
- Fonts
- Backgrounds
- Icons



How does the computer understand?

**HTML** structures and organizes content

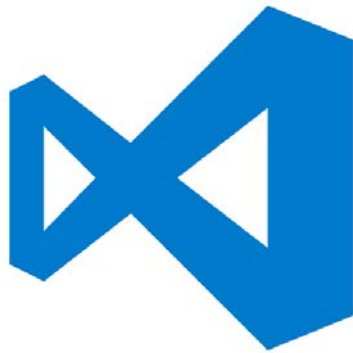
**CSS** stylizes the content and creates layout

**JAVASCRIPT** adds interactivity



# CODE EDITING TOOLS

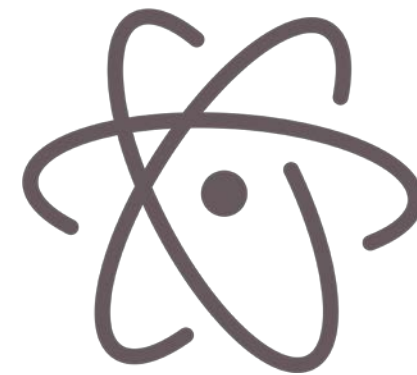
# CODE EDITORS



VS Code



Brackets



Atom



Sublime Text



Coda

# HTML is just text

You can right-click and select "View Source" on any webpage to see how the developer made it

# WEB BROWSERS



HTML and CSS require testing in all major modern browsers and devices

You can experiment directly in the browser before making permanent changes



# DEVELOPER TOOLS

## Chrome: Developer Tools

- Right-click > Inspect
- F12 key

## Safari: Developer Tools

- Open Preferences > Advanced > Show Develop menu
- Right-click > Inspect Element

## Internet Explorer: Developer Tools

- F12 key





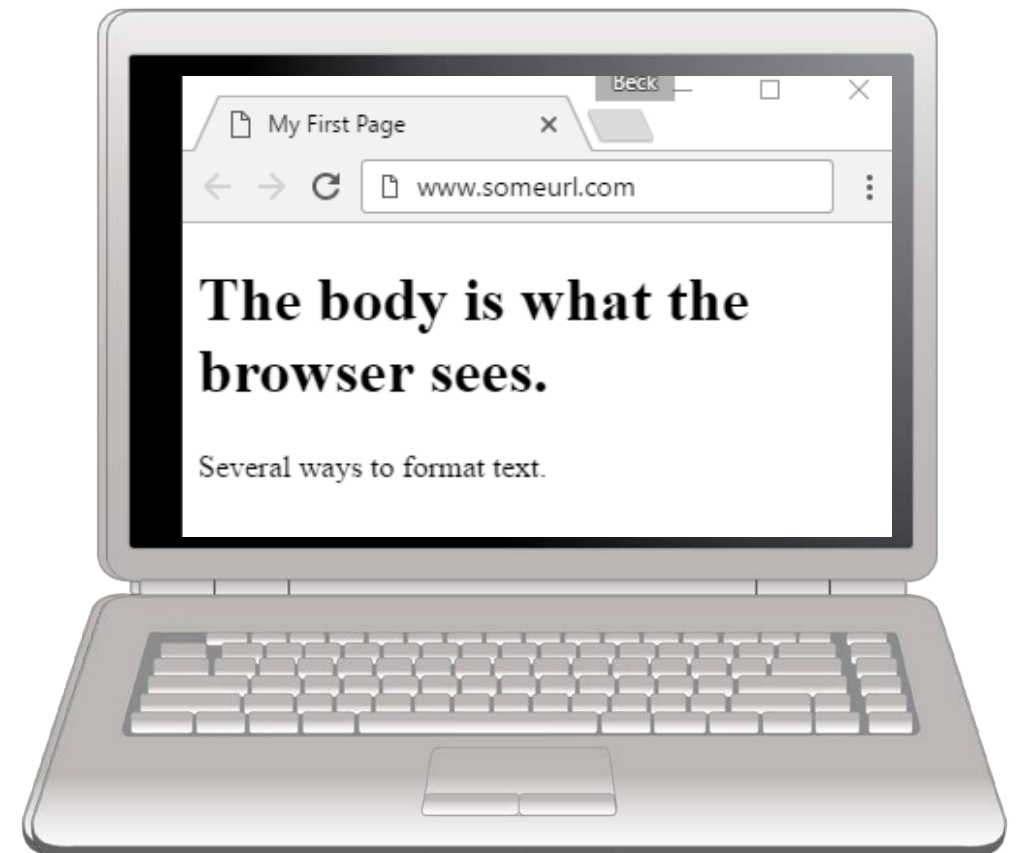
**LET'S TRY IT**

<html>

# HTML DOCUMENTS

# HTML DOCUMENT

```
<!doctype html>
<html>
<head>
  <meta charset="UTF-8">
  <title>My First Page</title>
</head>
<body>
  <h1>The body is what the browser sees.</h1>
  <p>Several ways to format text.</p>
</body>
</html>
```



# HTML ELEMENTS

- HTML elements are contained in `<>` brackets
- Most HTML tags have an **opening** tag and a **closing** tag

`<tag>Content goes in here</tag>`

- Some types of tags are “self-closing”

`<tag />`

# HTML ELEMENTS



# HTML RULES

- Tags are written in lowercase

`<a>` not `<A>`

- Tags **must** be closed

`<p>Text in here.</p>`

`<div>Content in here.</div>`

`<br/>` Self-closing line break

# DOCTYPE

<!doctype html>

- The very first thing in any HTML document
- Tells the browser what version of HTML the document is written in (this one is HTML5)

# HTML DECLARATION

<html>

- The top line after <doctype> declaration.
- Tells the browser “This is where everything starts!”

```
<html><!-- everything else --></html>
```



# <!--HTML COMMENTS-->

<!-- Comments are great -->

- Are not visible to the user in their browser
- Great for leaving notes for yourself or other developers

# HEAD ELEMENT

`<head></head>`

- **Required** for a valid HTML document
- Holds information about the document that is (mostly) not visible to the user
- Can contain CSS and Javascript

`<head>`

`<!-- metadata and resources -->`

`</head>`

# META TAGS

`<meta charset="UTF-8"/>`

- Used to specify "meta" information to the browser like page description, author, search engine keywords, and character encoding
- UTF-8 represents Unicode, a system to handle text consistently in a variety of languages.

`<head>`

`<meta name="author" content="Your Name" />`

`<meta name="description" content="A thrilling page"/>`

`</head>`

# TITLE TAG

`<title>My First Page</title>`

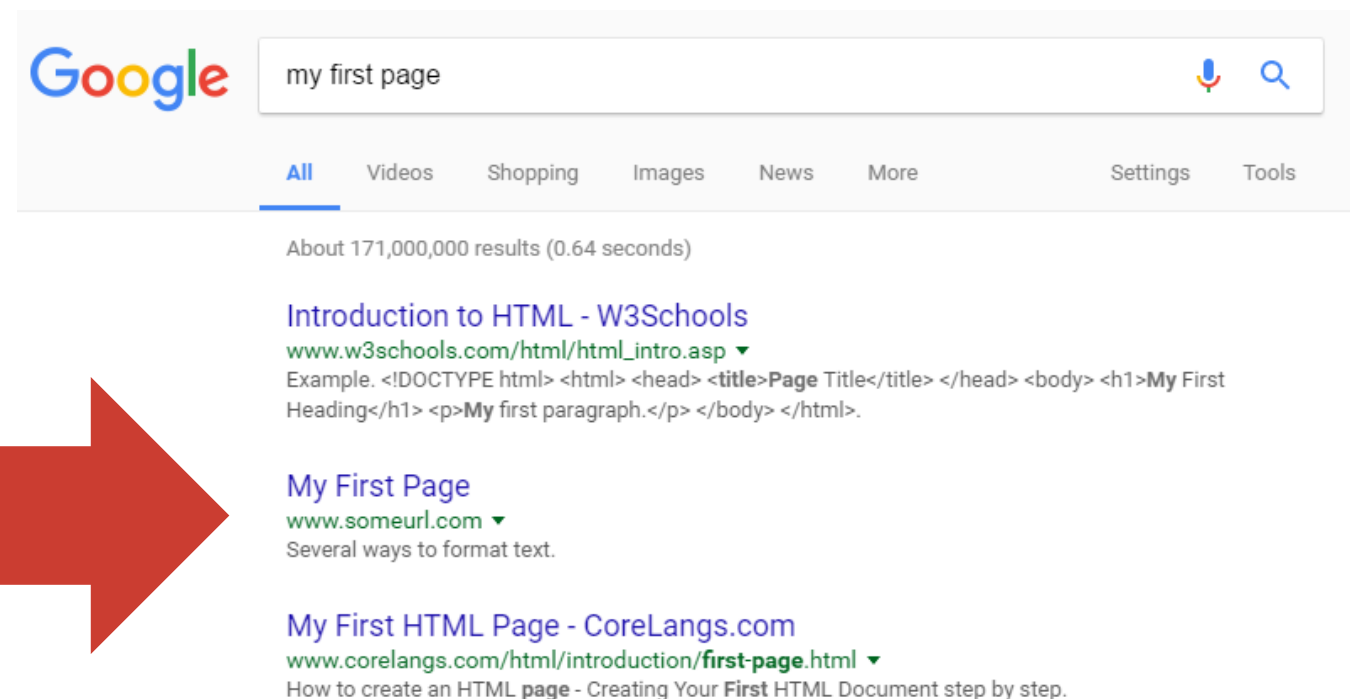
- Displays in the browser tab
- **Required** inside `<head>`



# TITLE TAG

`<title>My First Page</title>`

- Name of the page when page is bookmarked
- The title for the page in search results on Google (or Bing)



# BODY ELEMENT

`<body></body>`

The part of the HTML document that's visible to the user

- Contains all content of the document, such as tags, links, images, tables, etc.

`<body>`

`<!-- all my sweet content -->`

`</body>`

# MAJOR BODY ELEMENTS

- **Headings** for dividing up your page and content
- **Paragraphs** of text
- Bulleted, ordered, unordered **lists**
- **Images**
- **Links** to other pages, websites or resources.

# HEADINGS

`<h1>`My Page Header`</h1>`

**Headings** range from most important to least important

`<h1>` to `<h6>`

Search engines use `<h1>` to determine important information about the page



# HEADINGS

<h1>Heading 1</h1>

<h2>Heading 2</h2>

<h3>Heading 3</h3>

<h4>Heading 4</h4>

<h5>Heading 5</h5>

<h6>Heading 6</h6>

**Heading 1**

**Heading 2**

**Heading 3**

**Heading 4**

**Heading 5**

**Heading 6**

# PARAGRAPHS

<p>Hi! I'm a paragraph!</p>

- Most text in the document
- Browsers automatically add space around <p> elements (although this can be changed with CSS)

# LIST ELEMENTS

```
<ul>  
  <li>Puppies</li>  
  <li>Kittens</li>  
</ul>
```

**Unordered** lists `<ul>` appear in the browser by default with **bullets**

- Puppies
- Kittens

# LIST ELEMENTS

```
<ol>  
  <li>Puppies</li>  
  <li>Kittens</li>  
</ol>
```

**Ordered** lists `<ol>` appear in the browser by default with **numbers**

1. Puppies
2. Kittens

# LIST ELEMENTS

```
<ul>  
  <li>Puppies</li>  
  <li>Kittens</li>  
</ul>
```

Both unordered and ordered lists can only contain **list items** `<li>` directly

# IMAGES

```

```

- Images do not have a closing tag
- Images have two required **attributes**:
  - **src** is where the file lives (local or external)
  - **alt** is a description of the image (used for screen readers, search engines, etc)

# IMAGES

```

```

- **height** and **width** resize images and ensure the page doesn't jump
- **title** is shown as a tooltip in some browsers when you hover your mouse over the image



# LINKS WITH THE ANCHOR TAG

```
<a href="http://google.com">Google</a>
```

The `<a>` element defines an "anchor" or link

- Anything inside `<a>` is clickable - can be text, an image, or any other valid HTML



# SOME <A>TTIBUTES

```
<a href="http://google.com" title="Search"  
target="_blank">Google</a>
```

- **href** is the URL where the link should send the user
- **title** appears as a tooltip when you mouse over the link. It is read by screen readers
- **target="\_blank"** opens link in a new tab

# URL-SCUSE ME?

URL stands for “Uniform Resource Locator”

## **UNIFORM**

because it is a global standard

## **RESOURCE LOCATOR**

because that’s what an URL does – it locates a resource that lives on the internet

# RELATIVE FILE PATHS

**Relative paths** are URLs that go to a resource in relation to the page you're on

- Resources “local” to you should all be relative paths  
(your images, HTML documents, fonts, CSS and JS files)

```
<a href="other-page.html">Link to another page on my  
website</a>
```

```

```

 (image is in same folder)

```

```

 (image is in parent folder)

# ABSOLUTE FILE PATHS

**Absolute paths** are URLs that start with **http**

```
<a href="http://google.com">Ubiquitous  
search engine</a>
```

- These documents are not hosted by you, so if someone renames or deletes the file, your link will be broken



# FILE ORGANIZATION



# FILE ORGANIZATION

- If you structure your site correctly, you are one step closer to faster updates
- The next person to work on or look at your code will be able to understand what you've done and where to find things



# FILE ORGANIZATION

Typical files in a website include:

HTML files (.html)

CSS files (.css)

Javascript files (.js)

Images (.png, .jpg, .gif)

- HTML should usually go in the **main** (root) directory
- Make **subdirectories** for media, CSS, and Javascript files



# FILE NAMING RULES

- Use a consistent naming convention when naming files and folders
- Capitalization matters - kittens.png is **not** the same as KITTENS.png
- Use only letters, numbers, hyphens (-) or underscores (\_).
- No spaces in file names
- Your homepage is **index.html** by default





**PRACTICE TIME!**

# HOMEWORK

Create a website that about something that interests you

- At least 2 pages that are linked to each other
- Include a link to an outside website. Bonus: have the link open in a new tab
- Use 3 heading tags and at least one paragraph
- Use at least one list
- Show at least 2 images - one local and one remote
- Add one HTML comment
- Validate your website

# “HOMEWORK”

- Practice!
- Next time you see a cool website, inspect how they did it
- If you have questions during the week, feel free to email me
- Optional: read chapters 6-7 of *HTML and CSS: Design and Build Websites*

