

# **HTML & CSS Level 1: Week 1**

November 4 - December 9, 2014

Instructor: Devon Persing

# What we'll cover

- Major **HTML5** elements
- Major **CSS** properties and capabilities
- Website **structure and navigation**
- Overview of related **technologies, issues, and best practices**

# How we'll cover it

- How-to lectures
- Writing code in class
- Building on concepts week by week
- Making a small website on a topic of your choosing
- Free online resources
- Optional reading

# Class details

- Tuesdays, November 4 - December 9
- 6:30-9:30pm (with a break!)
- No class the week of Thanksgiving
- December sessions will be at new digs
- No grades, no tests, no requirements
- Participate, ask questions, practice

# Class resources

- Slides
- Code samples
- Tools
- Online resources, articles, and videos

<http://dpersing.github.io/svc/>

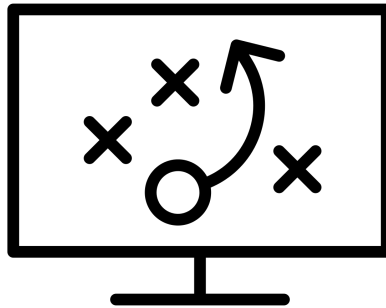
# Introductions!

- Who are **you**?
- What do you **do/make/study/etc.**?
- What do you **want to get out of class**?
- A **fun fact** about you!

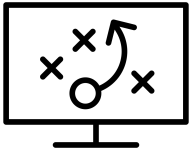
# Tonight

- Planning web pages
- Tools for writing code
- Intro to HTML
- Managing and naming your files
- Storing and sharing class files in Dropbox

# Planning web pages

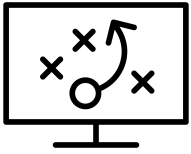






# Content, design, and code

- **Content** is the reason we make web pages
- **Design** is how we create user experiences and emotional responses
- **Code** is how we deliver content and experience



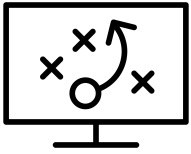
# Content first

## Text

- Articles
- Links
- Captions
- Listicles

## Media

- Images
- Videos
- Podcasts
- Games



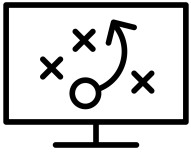
# Design second

## User experience and information architecture

- Layout
- Navigation
- User flows
- Labeling

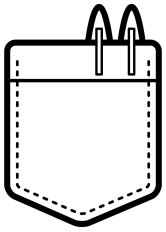
## Graphic design

- Colors
- Fonts
- Backgrounds
- Borders
- Icons



## Code third

- **HTML** structures content
- **CSS** creates style and layout
- **Javascript** adds interactivity



# NerdFacts™: Facts for nerds

- The World Wide Web Consortium (**W3C**) makes the rules for how the web works
- HTML5 is a joint project of the W3C and the Web Hypertext Application Technology Working Group (**WHATWG**)
- HTML5 is simply **the most recently specced version of HTML**

# Tools for writing code



Toolset designed by [Calvin Goodman](#) from the [Noun Project](#)



## Web browsers

- **Internet Explorer** on Windows
- **Safari** on OSX and iOS
- **Chrome** across platforms
- **Firefox** across platforms
- And others!

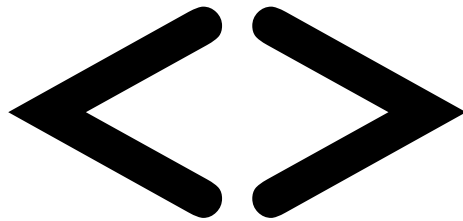


# Types of code editors

- **What you see is what you get editors**
  - Appear in publishing platforms like WordPress
  - Work like Word or similar program
  - Outputs code for you
- **Text editors**
  - Blank slate
  - Let you have full control over your code
  - We'll be using Sublime Text



# Intro to HTML elements





# Let's get started!

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
  <head>
```

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

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

```
  </head>
```

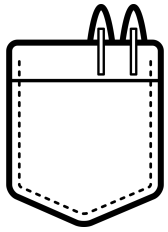
```
  <body>
```

```
    <h1>My First Page</h1>
```

```
    <p>Yes, we're going to write some HTML today!</p>
```

```
  </body>
```

```
</html>
```



## Syntax and language alert

Remember that the web was designed in a time and place where **computers were tiny, filenames were short, and code was cryptic.**

As a result, some of the HTML and terms we'll learn are just **weird and clunky.**

# <> Anatomy of an HTML element

- HTML elements have tags in <> brackets
- Usually an HTML element will have an **opening** tag and a **closing** tag

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

# <> HTML attributes

- Some HTML elements have **attributes** that provide more information or meaning
- Attributes have **names** and **values** joined with an = sign
- Attributes go in the opening tag

```
<a href="http://google.com">I 'm  
a link!</a>
```

# <> The "rules" for writing tags

- Tags are written in lower case

`<a>` not `<A>`

- Tags must be closed

`<p>Stuff</p>` not `<p>Things`

- Attribute values go in quotes

`` not `<img src=img.png>`

- Indent tags nested in other tags

# <> <!DOCTYPE html>

- Tells the browser what kind of document it's being served to give to you
- **Always comes first** in an HTML file
- Older but still very common version:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML  
1.0 Transitional//EN" "http://www.w3.  
org/TR/xhtml1/DTD/xhtml1-transitional.  
dtd">
```

# <> <html> element

- The <html> element opens after the DOCTYPE declaration and closes at the end of your document

```
<html>
```

```
  <!-- everything else -->
```

```
</html>
```



# <> <head> element

- The **<head>** element contains:
  - information about the document
  - styles in the form of CSS (optional)
  - Javascript (optional)

**<head>**

*<!-- metadata and resources -->*

**</head>**

# <> <meta> elements

- <meta> elements describe things like:
  - what character set to use
  - who authored the page
  - a description of the page for search engines

```
<head>
```

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

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

```
  <meta name="description" content="A thrilling page  
of HTML.">
```

```
</head>
```

## <> <title> element

- The <title> element contains the page title to display in the browser title bar or page tab

```
<head>
```

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

```
</head>
```

# <> HTML comments

- **HTML comments:**
  - can be placed anywhere within an HTML document
  - are invisible in the browser
  - are great for leaving yourself (or others!) notes

**<!-- a comment -->**

# <> <body> element

- The <body> element contains everything that will be visible in the browser

**<head>**

*<!-- all my metadata! -->*

**</head>**

**<body>**

*<!-- all my content! -->*

**</body>**

# <> Major <body> elements

- **Headings** for dividing up your page into logical sections
- **Paragraphs** of text
- Bulleted and numbered **lists**
- **Images**
- **Links** to go to other pages or sites

# <> Headings

- **Headings** range from most important (<h1>) to least important (<h6>)
- **Search engines and other technologies** use the <h1> to help decide what the page is about
- Headings provide an **outline** for pages

<h1>I'm Kind of a Big Deal</h1>

# <> Paragraphs

- **Paragraphs** are exactly what they sound like!
- Paragraphs structure most text in the document with **<p>** tags

**<p>**Hi, I'm a paragraph. You may remember me from the slide about closing your tags.**</p>**



# <> Lists

- The most common types of lists are:
  - **Unordered** (aka bulleted): `<ul>`
  - **Ordered** (aka numbered): `<ol>`
- These always contain list items (`<li>`)

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

# <> Images

- Images (<img>) do not have closing tags
- Images have two required attributes:
  - **src** is where the file lives
  - **alt** is a text description of the image

```

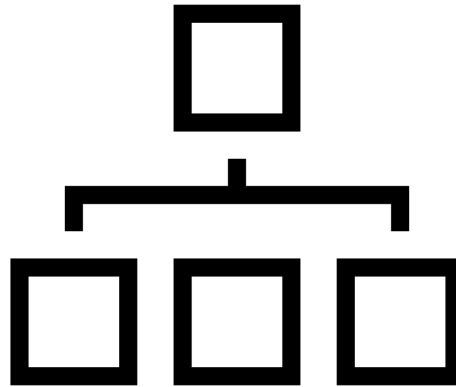
```

# <> Links

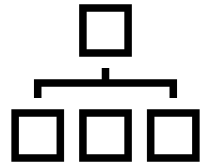
- **Anchor** (<a>) elements create paths that connect HTML pages together via links
- Links have a required **href** attribute that says where the link should send you
- Anything inside the <a> tags is clickable

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

# Managing your files

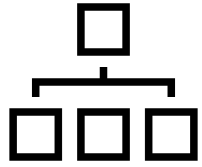


Flow Chart designed by [Richard Schumann](#) from the [Noun Project](#)



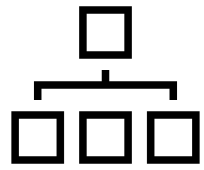
## Types of files

- For our purposes, we'll be using:
  - HTML files (`.html`)
  - CSS files (`.css`)
  - Javascript files (`.js`)
  - Image files (`.png`, `.jpg`, `.gif`, etc.)



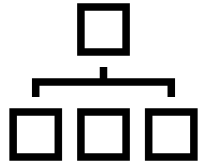
# Rules for naming your files

- No spaces
- Capitalization matters (`kittens.png` is *not* the same as `Kittens.PNG`)
- Use only letters, numbers, hyphens (`-`), and underscores (`_`)
- Must start with a letter
- Your homepage should be **`index.html`**



# File naming recommendations

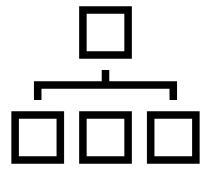
- Use meaningful filenames to make it easier to identify what's in a file
- Be consistent with how you name and group files
- Standardize your naming to prevent typing errors
- Current standard uses lower case and hyphens (e.g., **adorable-kittens.png**)



## File structures

- On the web, folders of files are called **directories**, and help dictate paths between files
- Put your HTML files in the **main directory**
- Make **subdirectories** for your CSS and media files





## Types of file paths

- On the web everything has a Universal Resource Locator (**URL**)
- **Absolute paths** are URLs that always go to exactly the same place (e.g., `http://google.com`)
- **Relative paths** are URLs that go to a place in relation to what page you're on (e.g., `css/layout.css`)



# Good developer behavior

- Make it easier for **people navigating** your site with logical file organization
- Make it easier for **other developers** (and **Future You**) to read and edit your code with:
  - brief, helpful comments
  - logical indenting

# Dropbox sharing



# Dropbox housekeeping

1. Go to [dropbox.com](https://dropbox.com) and create an account if you don't have one, or log in
2. Create a folder with a descriptive name
3. Upload the files and folders you made today to your new folder
4. Share the folder with me at **dropbox@dpersing.com**

# Make a huge (tiny) mistake?

- Click on the "Events" link to see your upload, deletion, and change history
- Click on the link for a deleted file to restore it to a previous version
- View details on existing files to see (and restore) previous versions
- This is a primitive form of **version control**

# "Homework" for next week

1. Make **2-3 HTML pages** and link them together, using the elements we discussed today (start with your **index.html** file!)
2. Upload them to your Dropbox folder and share it with me
3. *Optional reading:*
  - a. *HTML and CSS* ch. 1-4 (ignore page 45!)
  - b. *HTML5 for Web Designers* ch. 1-2

# Next week

- Questions and review from Week 1
- Making images web friendly in Photoshop
- More HTML elements and more practice
- Introduction to CSS
- Validating your HTML and CSS

# Questions? Comments?

- Visit [dpersing.github.io/svc](https://dpersing.github.io/svc) for:
  - Class slides
  - Code samples
  - Resources
- Email me: [dep@dpersing.com](mailto:dep@dpersing.com)
- Tweet at me: [@devonpersing](https://twitter.com/devonpersing)