HTML & CSS Workshop

by Bethany Davis
FemmeHacks 2016

Welcome!

- Bethany Davis
- Junior at Penn studying CS
- Taught myself HTML/CSS in 7th grade
- I have a few lines of HTML and CSS in the Google codebase 🙃

www.bethanytdavis.com

Pre-requisites

- A laptop with a modern Internet browser
- A text editor, like Sublime Text 2 or vim
- A GitHub account *

Goals

- Learn the basics of HTML and CSS
  - (Enough to use documentation for what you don't know)
- Start working on your own personal webpage!

What is HTML? What is CSS?

HTML = HyperText Markup Language

CSS = Cascading Stylesheets

Today's Workshop:

- **Intro to HTML**
  - Tags and attributes
  - Headers, paragraphs, lists
  - Images and links
- Intro to CSS
  - Colors, fonts, sizes
  - Spacing (margin vs. padding)
- HTML + CSS
  - Spans and divs
  - id and class
- Above & Beyond

Boilerplate HTML

- Start with this every time
- <head> = metadata
- <body> = actual content
- Paste this into “index.html”
- pastebin.com/3R7w2TKR

- www.htmlshell.com

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title>TITLE HERE</title>
    <meta name="description"
content="DESCRIBE YOUR WEBSITE">
    <meta name="keywords" content="
KEY, WORDS, HERE">
  </head>

  <body>

  </body>
</html>
```

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Tags and Attributes

<tag> content </tag>

```
<tag>
  <nested_tag>
     content
  </nested_tag>
</tag>
```

<tag attribute = “value/of/attribute”>
content </tag>

```
<b> This text is bold </b> versus
not bold.
```

This text is bold versus not bold.

```
<b><i>This text is bold and italic.
</i></b>
```

This text is bold and italic.

```
<b>This text is bold<i>and now also
italic</i> back to just bold.</b>
```

This text is bold *and now also italic* back to just bold.

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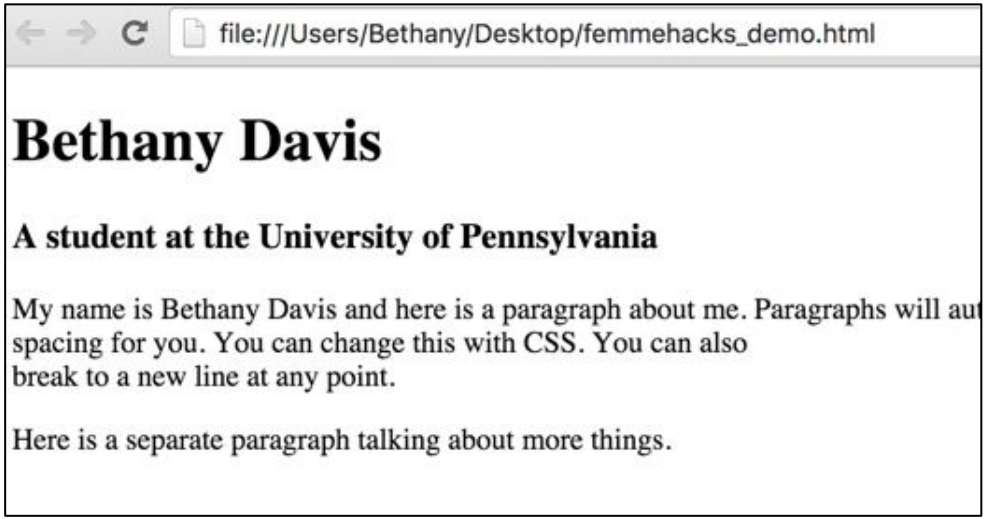
Headers and Paragraphs

- <h1> … <h6> Text! </h1> etc.
  - Headers
- Text here
  - Paragraph tags
  - Enclose text in a formatted paragraph
-
  - Line **br**eak
  - Like hitting “enter”
  - Doesn’t have a closing tag

```
<body>
  <h1>Bethany Davis</h1>
  <h3>A student at the University
of Pennsylvania</h3>

  <p>My name is Bethany Davis and
here is a paragraph about me. </p>
  <p>Here is a separate paragraph
talking about more things. </p>
</body>
```

Headers and Paragraphs




```
<body>
  <h1>Bethany Davis</h1>
  <h3>A student at the University
of Pennsylvania</h3>

  <p>My name is Bethany Davis and
here is a paragraph about me. </p>
  <p>Here is a separate paragraph
talking about more things. </p>
</body>
```

Ordered and Unordered Lists

Skills

- Java
- HTML
- CSS

Courses I've Taken

1. CIS 120
2. MKTG 101
3. CIS 320

```
<body>
  <ul><b>Skills</b>
    <li>Java</li>
    <li>HTML</li>
    <li>CSS</li>
  </ul>

  <ol>Courses I've Taken
    <li>CIS 120</li>
    <li>MKTG 101</li>
    <li>CIS 320</li>
  </ol>
</body>
```

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Images and Links

- Links
  - anchor tag: <a></a>
  - <a href=””> </a>
    - (href attribute)
  - Relative/absolute links
- Images
  - <img> (doesn’t close)
  - src=”” attribute

Images and Links

Visit my Github account

```
<img src="http://o.aolcdn.com/hss/storage/midas/c7ea4d2b38ad30e62a679ed5f4d6dfd9/200129886/MrGrumblecat-1.jpeg">

<a href="http://www.github.com">Visit my github account</a>

<a href="resume.pdf">View my resume</a>
```

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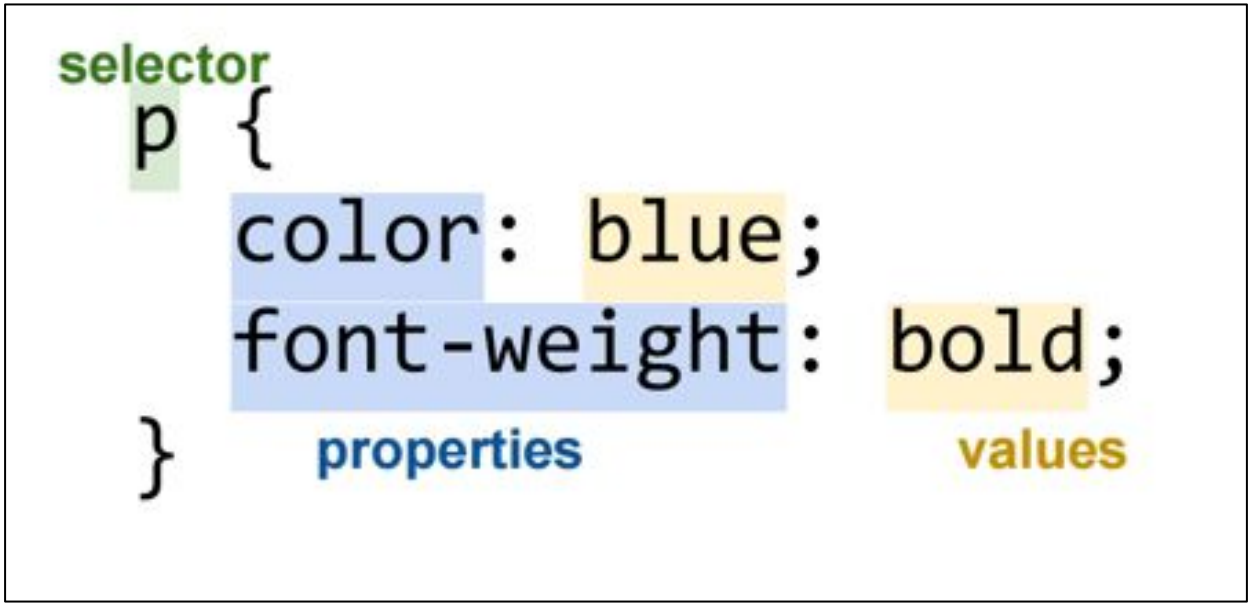
Boilerplate CSS

1. Make a new file in the same folder as your index.html file
2. Save the file as “stylesheet.css”
3. Add this line of code into the <head> of your index.html file

```
<head>
  <meta charset="UTF-8">
  <title>My Website</title>
  <link rel="stylesheet" href="
stylesheet.css" type="text/css">
</head>
```

Intro to CSS



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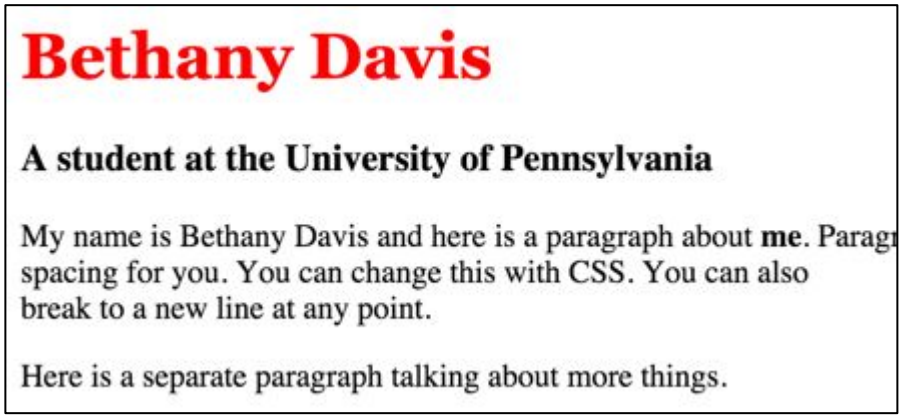
Colors, Fonts and Sizes

(in stylesheet.css)

- How to make all h1 headings red, size 18px, Georgia font?
- Hexadecimal colors!




```
h1 {

  color: red;

  /* color: #ff0000; */

  size: 18px

  font-family: 'Georgia', serif

}
```

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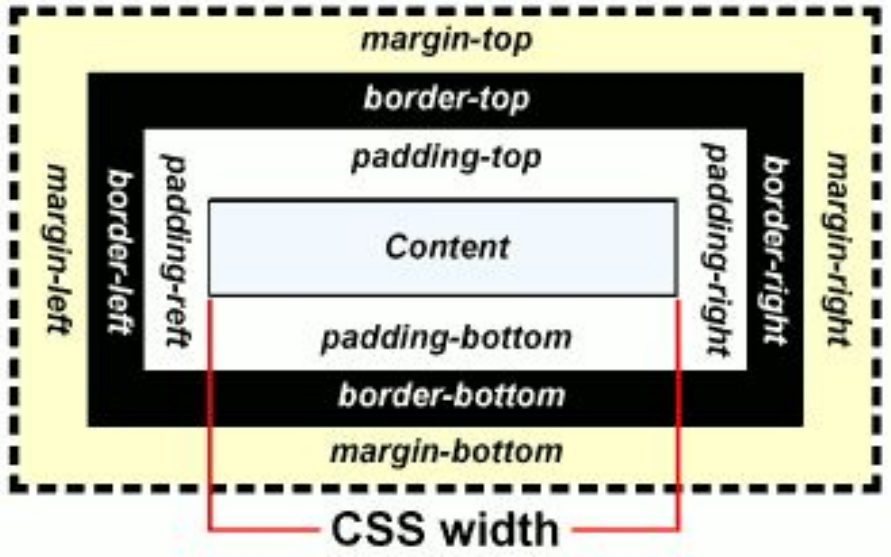
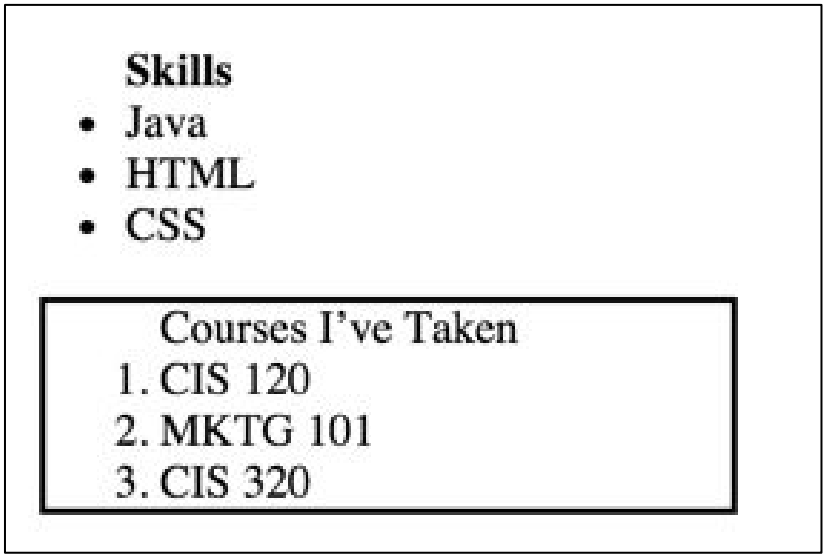
Spacing Elements: Margin, Padding, Border



Spacing Elements: Margin, Padding, Border




```
ol {

  width: 200px

  border: 2px solid black;

  margin: 10px;

}
```

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Spans and divs

- Two very important HTML tags!
- Group page elements into larger blocks
- Style/align the larger blocks
- content
  - Used for inline styles
- content
  - Used for larger blocks/multi-line elements

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id and class in HTML

- Many <ul>, but one special list
  - ex: navigation bar
- Solution: use id attribute
  - Single, unique element

- A whole section of your website
  - ex: about me - all blue
- Solution: use class attribute
  - Multiple elements with shared properties

```
<ul id="navbar">
  <li>Home</li>
  <li>About</li>
</ul>



<div class="about">
  <p>Words words words words words words.</p>
  <p>More words.</p>
</div>
```

id and class in CSS

- Same CSS syntax
- #id
- .class

```
#navbar {

  color: #04FF57;

  height: 500px;

}



.about {

  border: 4px dashed #04FF57;

}
```

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Above & Beyond

- Take your website to the next level!
  - JavaScript, jQuery
- HTML and CSS best practices
- Hosting on seas.upenn.edu/ or GitHub pages
- github.com/google-cssi/cssi-curriculum
- **Bootstrap (!!!)**

Thanks and good luck on your hacks!