

Day 5

Down and Dirty CSS

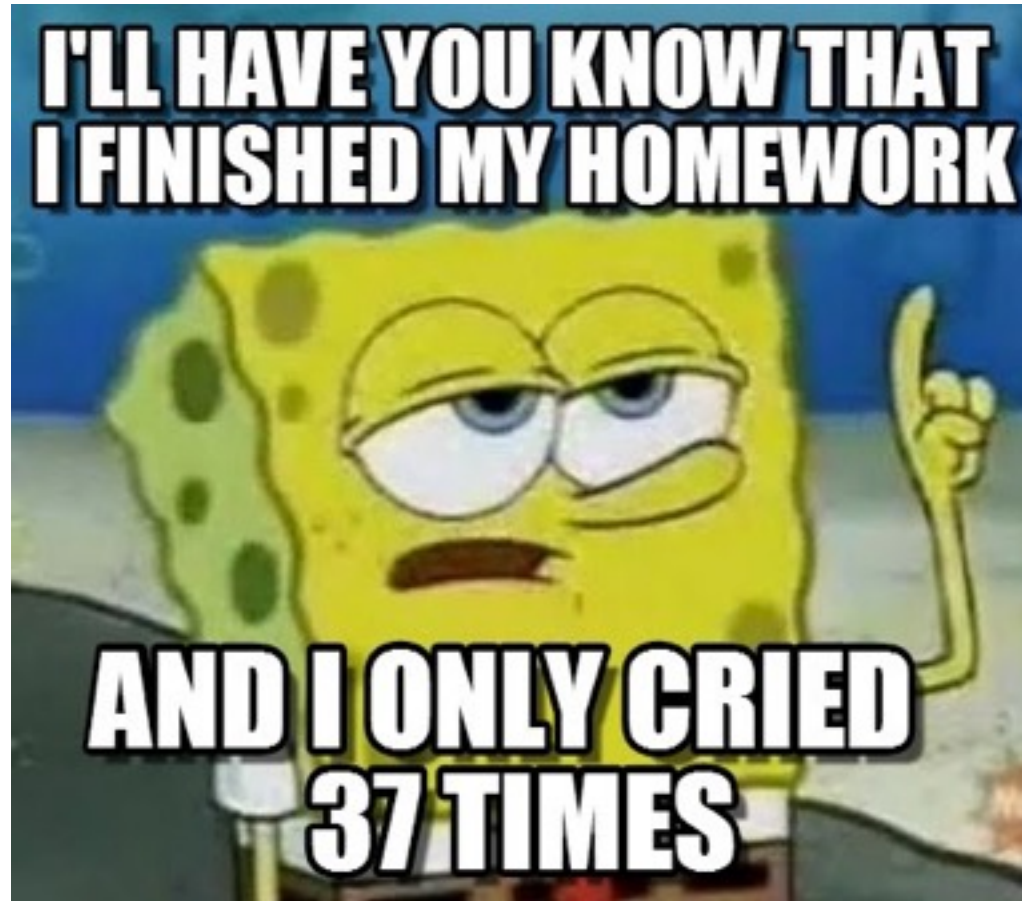
6/30/2016



UCF CODING BOOT CAMP

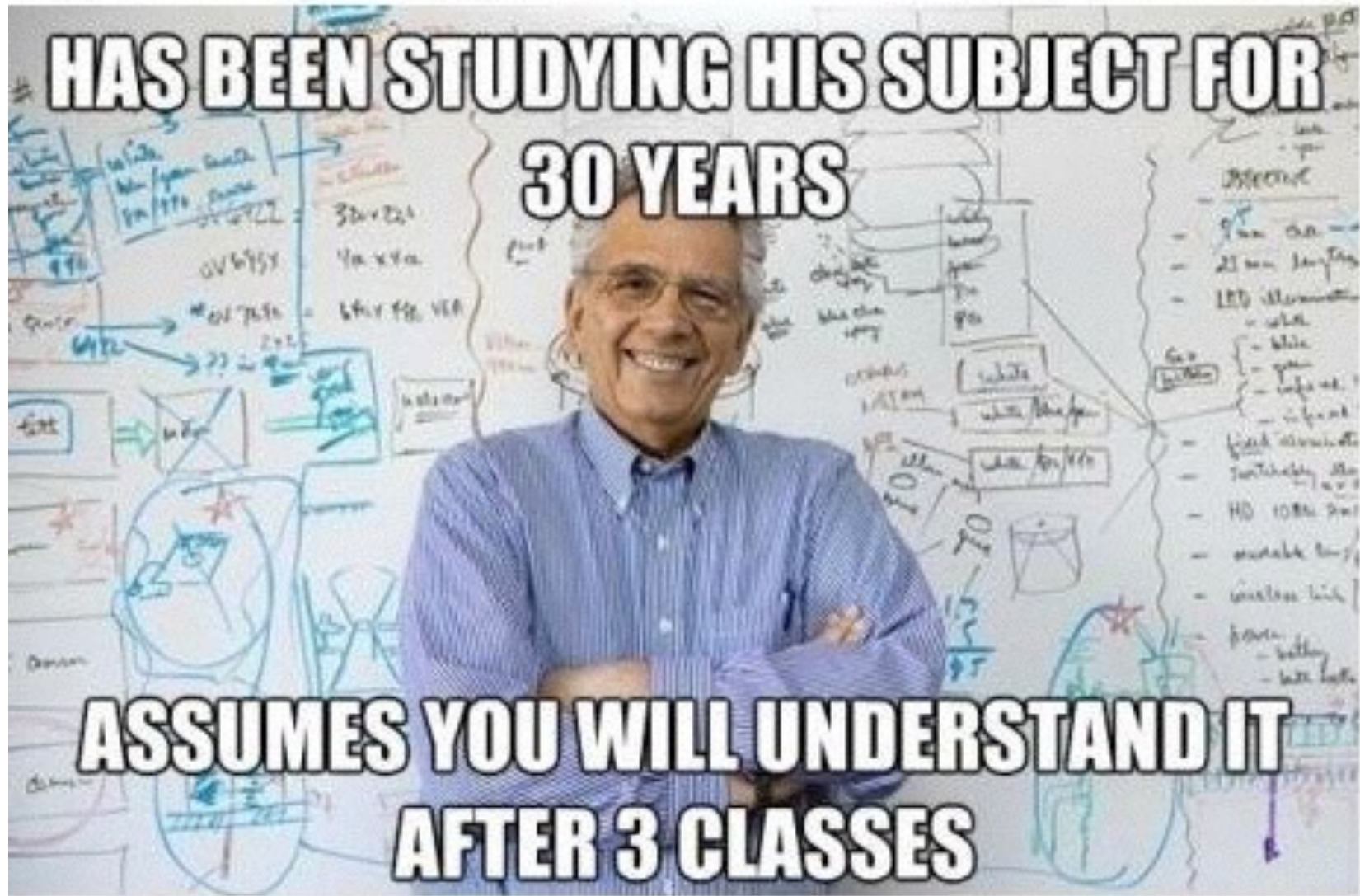
A Few Admin Items...

Homework is Due!



*Don't forget to submit **both** the GitHub and Heroku Links*

Feedback #1 – Pace is Fast!!!

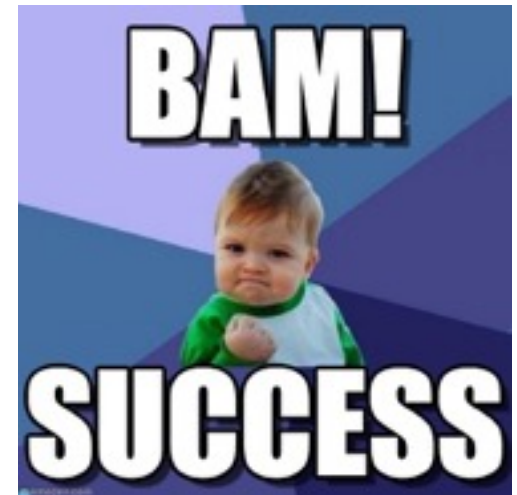


Feedback #1 – Pace is Fast!!!

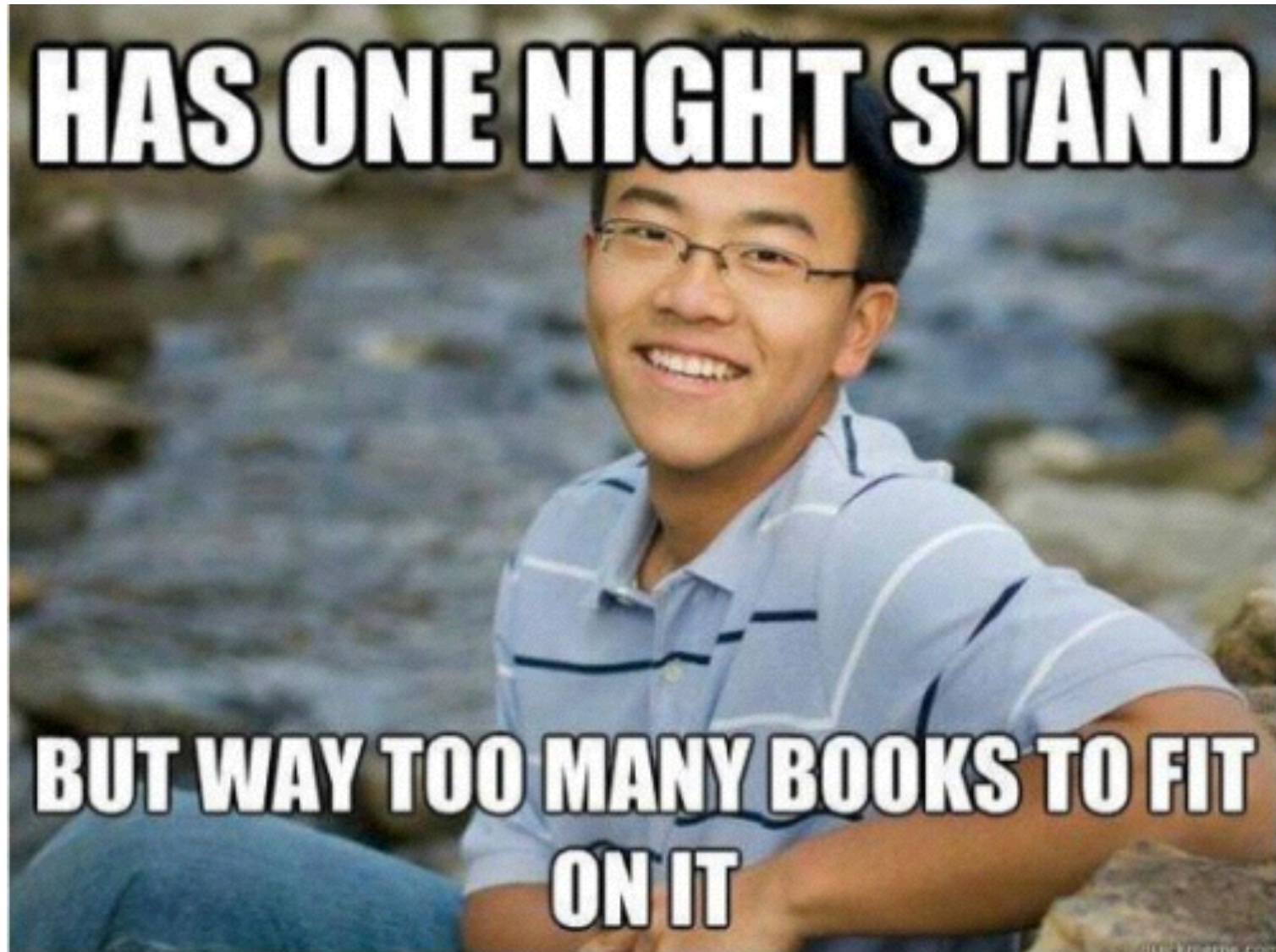
- Here's the reality, the pace of this program is FAST.
- We could slow down and make it easier – but that wouldn't prepare you to be developers right out of the program.
- Take up the challenge. Try to retain as much as you can.
- Then on your own time (after the program), go back and review the concepts you felt you needed a refresher on.
- **DO NOT** try to master *every* little detail.
- **Focus on the big picture and how to find what you need, when you need it.**

Feedback #1 – Pace is Fast!!!

- That said, as instructors / TAs we are here to help.
- Share your GitHub code as you run into issues. We can let you know if you're going in the right (or wrong) direction.
- Come to office hours! We can help go over old code, offer tips on homework, or just generally give you a pep talk.
- Reach out to Student Success if you'd ever like to schedule a 1-on-1 meeting.



Feedback #2 – Books Please?



Feedback #2 – Books Please?

- **Advice:**

While in this program, concentrate all your efforts on what we're covering in class.

- Books can be helpful when you are learning on your own, but in a Bootcamp like this – they can also be distracting, especially when our class is moving so quickly.
- When you go home focus your efforts on trying to re-complete exercises, complete the homework, and going over slides.
- Once you are done with the program you can invest in books and outside tutorials.

Feedback #2 – Books Please?

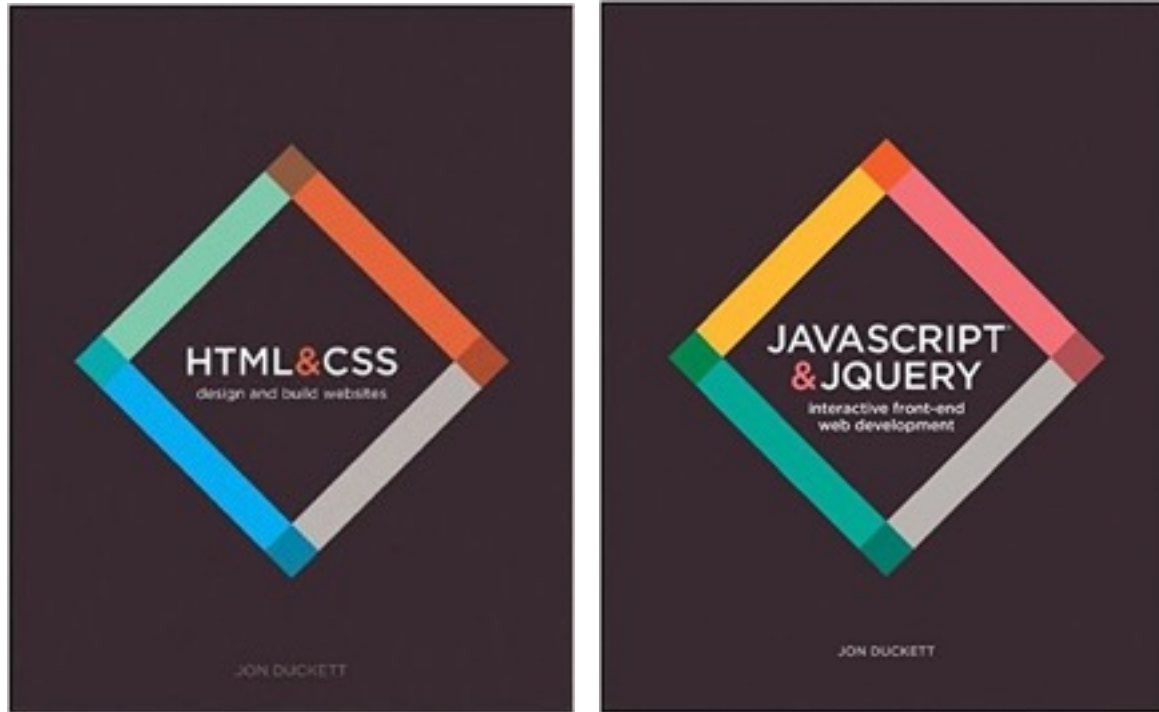
That said...
If you truly feel the need for outside resources...

Feedback #2 – Books Please?



- **Code School** offers some of the best online courses on HTML, CSS, Javascript, Node, Express, and Angular tutorials of anywhere.

Feedback #2 – Books Please?



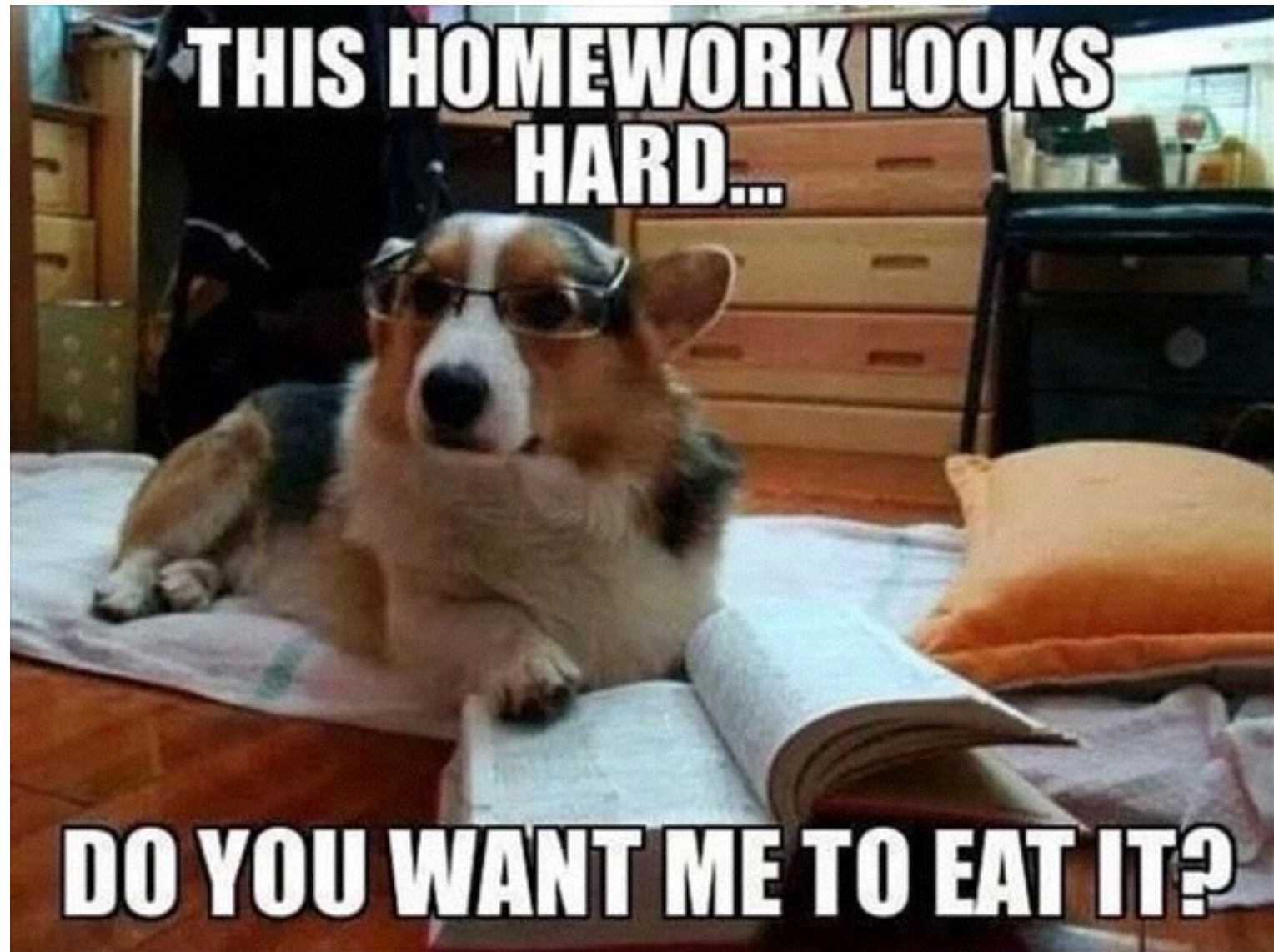
- **HTML, CSS, Javascript, and jQuery by Jon Duckett** are two of the clearest primers on these subjects. If you are a “book-person”, these may be helpful texts. (\$34 on Amazon for both)

Feedback #2 – Books Please?



- **Eloquent Javascript** is a terrific free book that goes through the fundamentals of Javascript.
- You can find it here: <http://eloquentjavascript.net/>

Feedback #3 – Homework is Hard



Feedback #3 – Homework is Hard

- **Going forward, Homework will always be due on Wednesday.**
- Generally speaking, expect homework to be semi-challenging.
- Make sure you're leaving a solid block of time to put in.
- ***If you find yourself working on assignment for over 2 hours without even a small amount of progress – let us know!***
- You don't win points in life ***staring at a blank screen.***

Today's Class

Objectives

In today's class we'll be introducing:

- CSS Typography and Google Fonts
- Pseudo-Classes
- The Basics of Twitter Bootstrap

CSS Typography

Typography is Huge



- **Typography** can play a huge role in the visual aesthetic and emotional identity of a webpage.

Typographic Properties

- **Line Height**

Distance between lines of text on a page. (Golden Ratio of 1.5x font).

- **Font-Size**

Actual size of lettering. Should be at least 16 px on modern pages.

<https://www.smashingmagazine.com/2011/10/16-pixels-body-copy-anything-less-costly-mistake>

- **Line Length**

Not a CSS property but rather a standard. Should be about 50-75 characters per line on a desktop

<http://baymard.com/blog/line-length-readability>

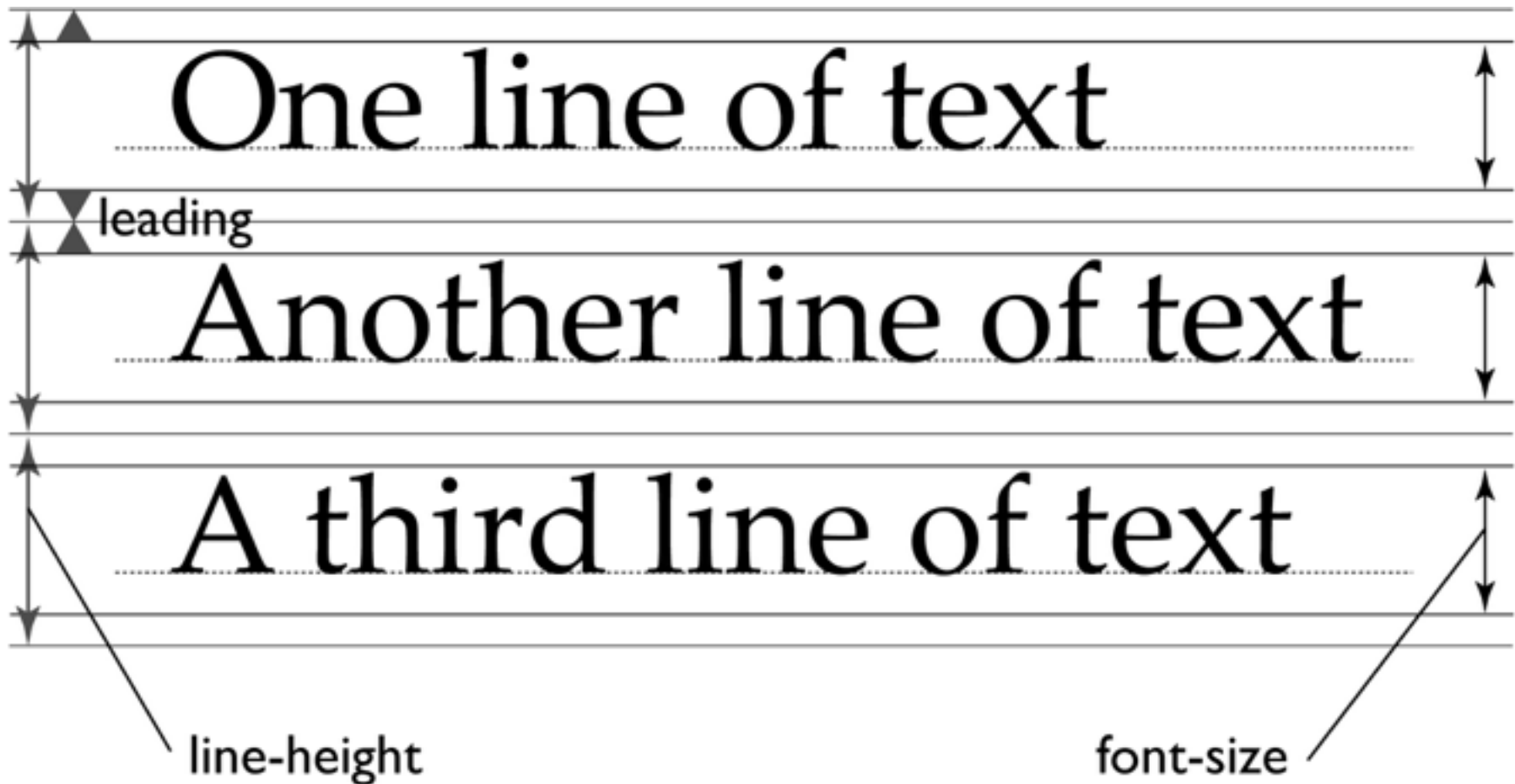
- **Letter Spacing**

Spacing between individual letters (try to avoid cramping)

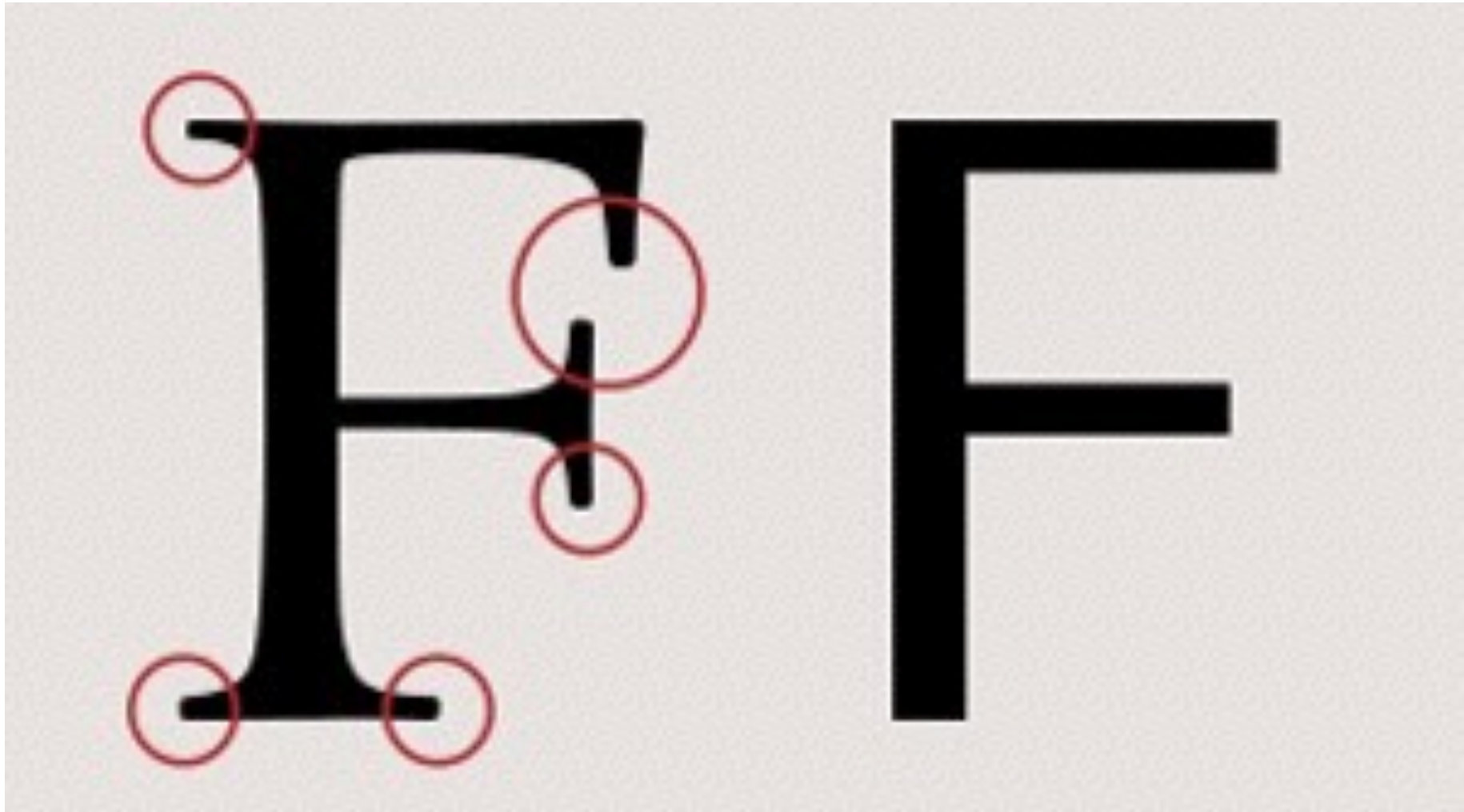
- **San Serif vs Serif**

Sans-serif (have no line underneath) and are easier to read online

Line Height vs Fonts



Serif vs Sans Serif



- **Serif fonts** include small lines attached to the end strokes of letters.
- **Sans-Serif** (without serif) do not include such strokes.

> YOUR TURN!!

Assignment

Create a block of text using a Lorem Ipsum Generator and incorporate it into an HTML Document.

Then use CSS styling to modify the:

- Font-family
- Font-size
- Font-weight
- Line-height
- Line spacing

Bonus:

If you finish early, read about TypePlate and see if you can figure out how to incorporate it into your site. (<http://typeplate.com/>)

Google Fonts

The screenshot displays the Google Fonts website. At the top, the Google Fonts logo is on the left, and links for 'More scripts', 'About', 'Analytics', and 'New to Google Fonts?' are on the right. Below the header, a search bar indicates '708 font families shown'. To the left of the main preview area, there are filter options under 'Filters:' including 'All categories', 'Thickness', 'Slant', and 'Width'. Below these are 'Script:' options with 'Latin' selected, and a 'Reset all filters/search' button. Under 'Styles:', there is a 'Show all styles' button. The main preview area has tabs for 'Word', 'Sentence', 'Paragraph', and 'Poster', with 'Sentence' selected. It shows a 'Preview Text' of 'Grumpy wizards make toxic brew for the evil' and a 'Size' of '28 px'. Two font preview cards are shown: 'Open Sans, 10 Styles by Steve Matteson' and 'Roboto, 12 Styles by Christian Robertson'. Each card includes a 'Normal 400' label, the preview text, and an 'Add to Collection' button.

Google Custom Fonts can be easily incorporated

Google Fonts

> YOUR TURN!!

Assignment:

Create (or re-use) an HTML Document of your choosing and then incorporate 2-3 Custom Google Fonts into the page.

Bonus:

If you finish early, read about Font Awesome icons and see if you can figure out how to incorporate one onto your page.

Pseudo Styles

Pseudo Classes

- Additionally, CSS has keywords that can be added to selectors to highlight a **special state** of the element selected.
- Great example: CSS can hook onto the specific moment when a link is **hovered over** using the **:hover** pseudo-class.
- Complete list of pseudo-classes found here: <https://developer.mozilla.org/en-US/docs/Web/CSS/Pseudo-classes>

Index of standard pseudo-classes

:active	:link
:any	:not()
:checked	:nth-child()
:default	:nth-last-child()
:dir()	:nth-last-of-type()
:disabled	:nth-of-type()
:empty	:only-child
:enabled	:only-of-type
:first	:optional
:first-child	:out-of-range
:first-of-type	:read-only
:fullscreen	:read-write
:focus	:required
:hover	:right
:indeterminate	:root
:in-range	:scope
:invalid	:target
:lang()	:valid
:last-child	:visited
:last-of-type	
:left	

Button with Various States

Default State

Hover State

Focus State

Active State

Instructor: Demo
(Button.html | 3-Pseudoclass)

> YOUR TURN!!

Assignment

Create a series of links and modify the pseudo-classes associated with their Default, Active, Hover, and Focus States.

Bonus:

If you finish early, incorporate a pseudo-class we haven't covered in your page. Then read about “pseudo-elements” and try to incorporate one as well.

Beyond CSS Hacking

Quick Refresher on HTML/CSS

- **HTML:** Hypertext Markup Language – (Content)
- **CSS:** Cascading Style Sheets – (Appearance)
- **HTML/CSS are the “languages of the web”.** Together they define both the content and the aesthetics of a webpage – handling everything from the layouts, colors, fonts, and content placement. (Javascript is the third – handling logic, animation, etc.)



HTML vs HTML/CSS

HTML Alone

- Like writing papers in “Notepad”.
- Can only write unformatted text.



HTML / CSS

- Like writing papers in Microsoft Word.
- Can format text, page settings, alignment, etc. based on “highlighting” and menu options.



How You (Probably) Feel About CSS



There is a better way!

Where's the CSS? (Instructor Demo)

The Coding Bootcamp

Home

About

Contact

Dropdown ▾

Default

Static top

Fixed top

Awesome Header

Smaller Awesome Header

Even Smaller Header

✉ [Learn more](#)



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> YOUR TURN!!

Quick Activity:

With those closest to you, take a close look at the Bootstrap-powered HTML document I just sent you.

Then, be prepared to answer the following two questions:

1. Where is this HTML document drawing its styles from?
2. How does our browser know which HTML element to style in which way? (ex: button face or background banner)

HINT: Think about how Google Fonts works...

Powered by Bootstrap

External CSS Link

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <title>My First Website</title>
5     <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
      bootstrap/3.3.6/css/bootstrap.min.css">
6 </head>
7 <body>
```

Pre-Defined CSS Class (ex: “Jumbotron”)

```
<div class="jumbotron">
  <h1 class="text-center"><strong>Awesome Header</strong></h1>
  <h2 class="text-center">Smaller Awesome Header</h2>
  <h3 class="text-center">Even Smaller Header</h3>
  <p class="text-center"><a class="btn btn-danger btn-lg" href="#" role="button">
<span class="glyphicon glyphicon-envelope"></span> Learn more</a></p>
</div>
```

Powered by Bootstrap

The Coding Bootcamp

Home

About

Contact

Dropdown ▾

Default

Static top

Fixed top

Awesome Header

Smaller Awesome Header

Even Smaller Header

[✉ Learn more](#)

class="jumbotron"



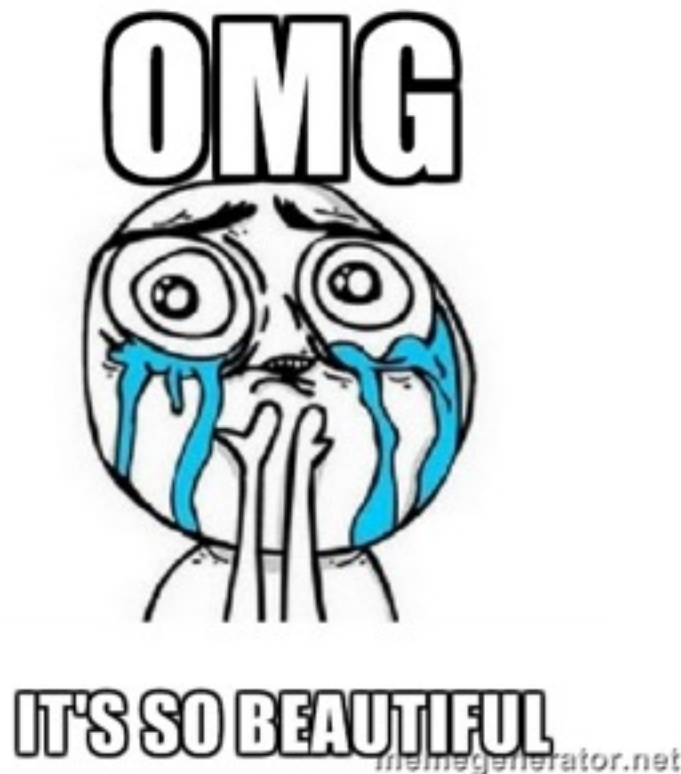
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Big Deal!!!



***Using Bootstrap,
we have PRE-DEFINED CSS Styles.***

> YOUR TURN!!

Quick Activity:

Turn to the person next to you and celebrate this together.

Then discuss the concept with them to confirm you both understand why you are celebrating.

Hint: You should be explaining why is Bootstrap's "pre-defined" CSS a big deal.

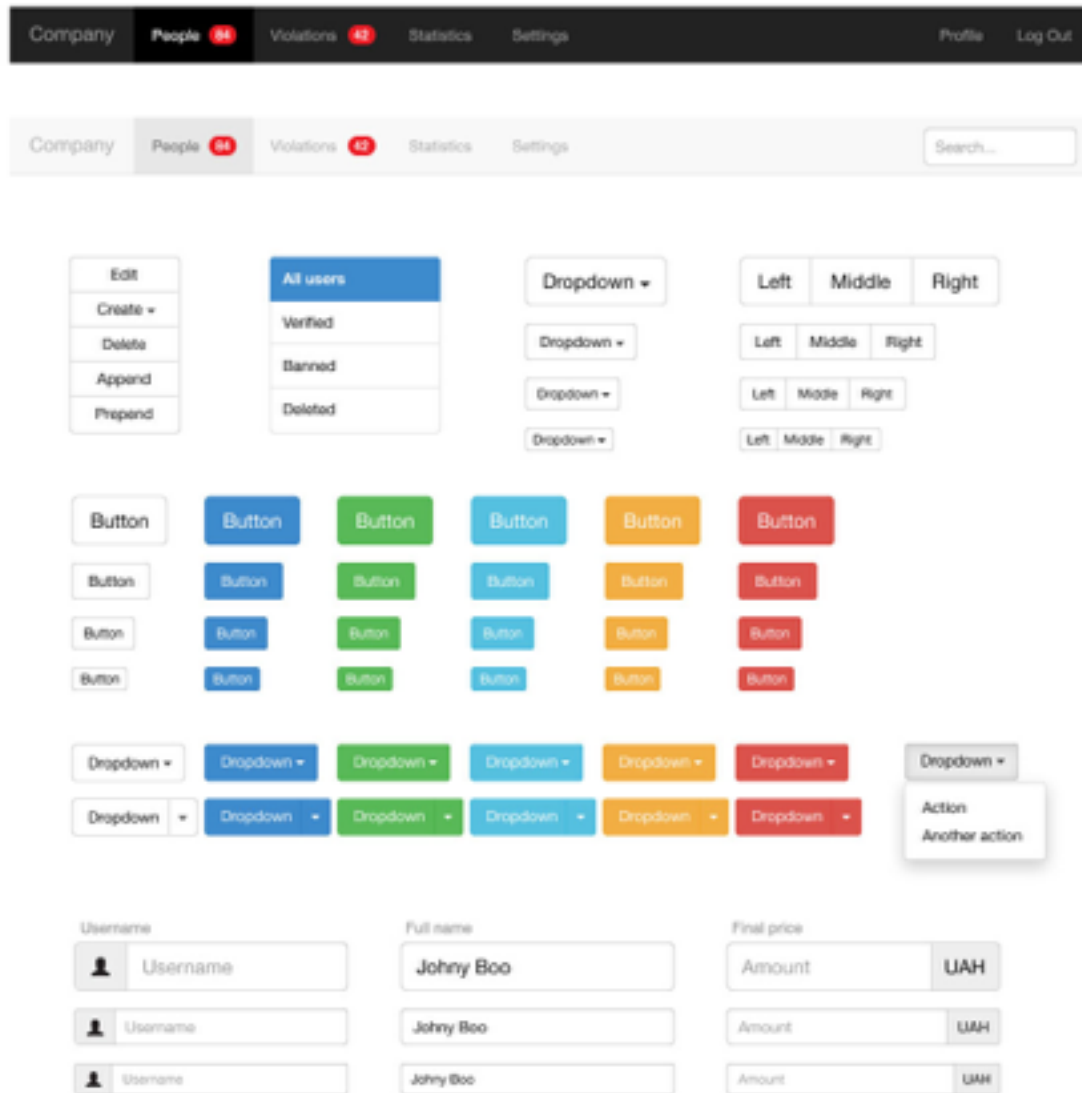
What is Bootstrap?

Bootstrap Definition

- **Twitter Bootstrap** is a free collection of tools for creating websites and web applications.
- It comes with a pre-built design template for typography, forms, buttons, navigation, UI elements, and javascript.
- Documentation here: <http://getbootstrap.com/>



Why Use Bootstrap?



- **Reason #1: UI Kit**
- Familiarize yourself with the UI features it offers via the documentation.
- Once Bootstrap is active, you can simply copy snippets from the documentation to save yourself major time of creating elements yourself.

Why Use Bootstrap?

Reason #2: Mobile Responsiveness

- One of the most compelling reasons to use Bootstrap is the default **mobile-responsive** quality it provides.
- This means that your website will look “good” automatically when viewed on screens ranging from monitors to tablets to phones.



HTML / CSS / Bootstrap Analogy

HTML Alone

- Like writing papers in “Notepad”.
- Can only write unformatted text.



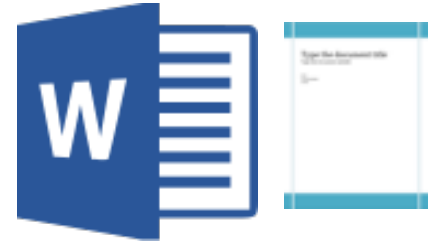
HTML / CSS

- Like writing papers in Microsoft Word.
- Can format text, page settings, alignment, etc. based on “highlighting” and menu options.



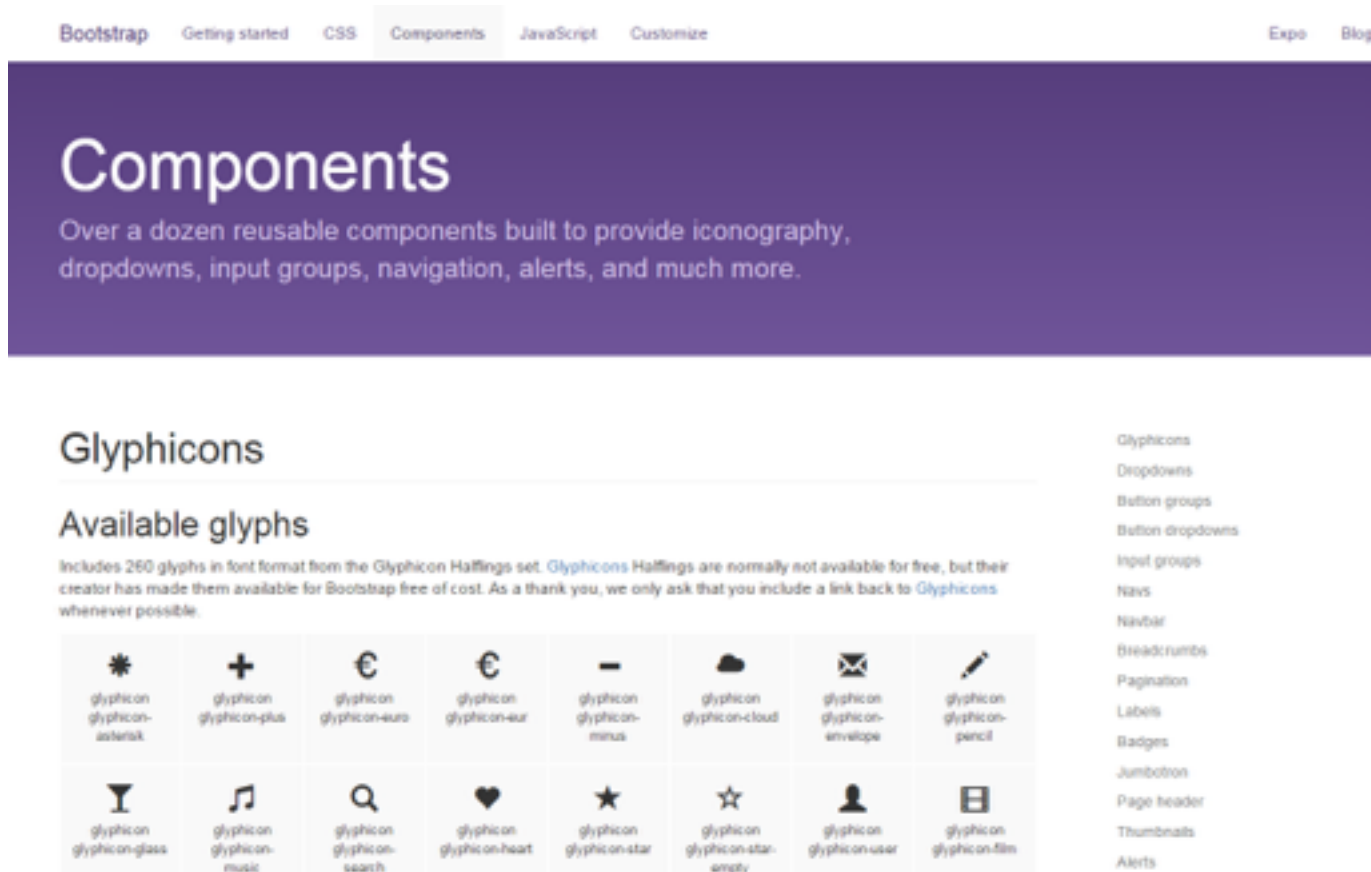
HTML / CSS & Bootstrap

- Like writing papers in Microsoft Word with a **prebuilt template**.
- You can still customize, but now have a pre-built style and aesthetic look.



Key Bootstrap Features

Bootstrap Components



- **Bootstrap** offers a wide range of components for inclusion in your next web project. Best way to use them is to simply flip through the documentation and incorporate elements as necessary.

Bootstrap Nav Bars

My First Website Link 1 Link 2 Link 3

Example:

```
<nav class="navbar navbar-default navbar-fixed-top" role="navigation">
  <div class="container">
    <div class="navbar-header">
      <button type="button" class="navbar-toggle collapsed"
        data-toggle="collapse" data-target="#navbar" aria-expanded="false" aria-controls="navbar">
        <span class="sr-only">Toggle navigation</span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
      </button>
      <a class="page-scroll navbar-brand" href="#page-top">My First Website</a>
    </div> <!-- /.navbar-header -->
    <div id="navbar" class="navbar-collapse collapse">
      <ul class="nav navbar-nav">
        <li class="hidden">
          <a href="#page-top"></a>
        </li>
        <li><a href="http://www.google.com" class="nav-btn">Link 1</a></li>
        <li><a href="http://www.facebook.com" class="nav-btn">Link 2</a></li>
        <li><a href="http://www.twitter.com" class="nav-btn">Link 3</a></li>
      </ul>
    </div> <!-- /.navbar-collapse -->
  </div> <!-- /.container -->
</nav>
```



Bootstrap Jumbotron

Hello, world!

This is a simple hero unit, a simple jumbotron-style component for calling extra attention to featured content or information.

Learn more

Example:

```
<div class="jumbotron">
  <h1>Hello, world!</h1>
  <p>...</p>
  <p><a class="btn btn-primary btn-lg" href="#" role="button">Learn more</a></p>
</div>
```



Bootstrap Glyphs

Available glyphs

Includes 260 glyphs in font format from the Glyphicon Halfings set. [Glyphicons](#) Halfings are normally not available for free, but their creator has made them available for Bootstrap free of cost. As a thank you, we only ask that you include a link back to [Glyphicons](#) whenever possible.

 glyphicon glyphicon- asterisk	 glyphicon glyphicon-plus	 glyphicon glyphicon-euro	 glyphicon glyphicon-eur	 glyphicon glyphicon-minus	 glyphicon glyphicon-cloud	 glyphicon glyphicon-envelope	 glyphicon glyphicon-pencil
 glyphicon glyphicon-glass	 glyphicon glyphicon-music	 glyphicon glyphicon-search	 glyphicon glyphicon-heart	 glyphicon glyphicon-star	 glyphicon glyphicon-star-empty	 glyphicon glyphicon-user	 glyphicon glyphicon-film
 glyphicon glyphicon-th-large	 glyphicon glyphicon-th	 glyphicon glyphicon-th-list	 glyphicon glyphicon-ok	 glyphicon glyphicon-remove	 glyphicon glyphicon-zoom-in	 glyphicon glyphicon-zoom-out	 glyphicon glyphicon-off
 glyphicon glyphicon-signal	 glyphicon glyphicon-cog	 glyphicon glyphicon-trash	 glyphicon glyphicon-home	 glyphicon glyphicon-file	 glyphicon glyphicon-time	 glyphicon glyphicon-road	 glyphicon glyphicon-download-alt

Example:

```
<span class="glyphicon glyphicon-certificate"></span>
```



Bootstrap Table

#	First Name	Last Name	Username
1	Mark	Otto	@mdo
2	Jacob	Thornton	@fat
3	Larry	the Bird	@twitter

Example:

```
<table class="table table-striped">
  <tr>
    <th>First Name</th>
    <th>Last Name</th>
    <th>Username</th>
  </tr>
  <tr>
    <td>Mark</td>
    <td>Otto</td>
    <td>@mdo</td>
  </tr>
  ...
</table>
```

Bootstrap Form

Email address

Password

File input

No file chosen

Example block-level help text here.

☐ Check me out

Example:

```
<form>
  <div class="form-group">
    <label for="exampleInputEmail">Email address</label>
    <input type="email" class="form-control" id="exampleInputEmail" placeholder="Enter email">
  </div>
  <div class="form-group">
    <label for="exampleInputPassword1">Password</label>
    <input type="password" class="form-control" id="exampleInputPassword1" placeholder="Password">
  </div>
  <div class="form-group">
    <label for="exampleInputFile">File input</label>
    <input type="file" id="exampleInputFile">
    <p class="help-block">Example block-level help text here.</p>
  </div>
  <div class="checkbox">
    <label>
      <input type="checkbox"> Check me out
    </label>
  </div>
  <button type="submit" class="btn btn-default">Submit</button>
</form>
```



Instructor: Demo
(BootstrapButtons.html | 5-BootstrapDemo)

> YOUR TURN!!

Activity:

Working with someone closest to you:

1. Navigate to the Twitter Bootstrap website.
2. Then copy the link to the Bootstrap CSS file into one of your old HTML files.
3. Look through the Bootstrap CSS or Components list and incorporate at least three Bootstrap elements onto your page.
4. Slack a screenshot of your page to your section's channel when you are done.

Hint: First include a link to Bootstrap's CSS. Then visit the Bootstrap page on CSS or Components.

Bonus Bootstrap Diagram: <http://cl.circletr.ee/1j262a152x0n>



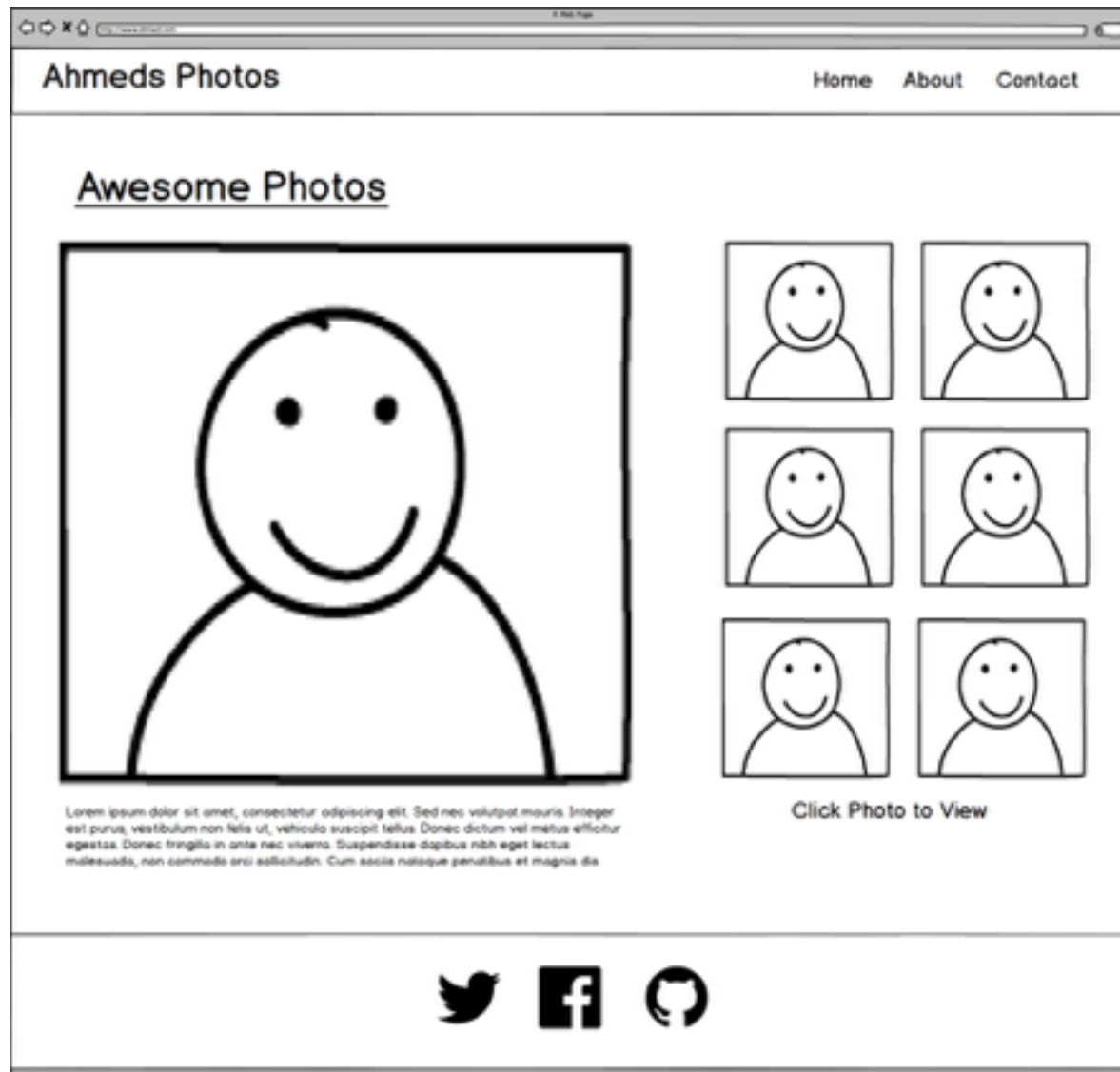
Takeaways

Takeaways

By the end of class you should be able to:

1. Offer a loose definition of “typography” and a few CSS properties for styling it.
2. Offer a practical example for using pseudo-classes.
3. Understand “generally” what Twitter Bootstrap is and why pre-defined CSS frameworks are powerful.
4. Know how to incorporate the Twitter Bootstrap style library into your website.

Next Class... Layout Building!



Questions?
