

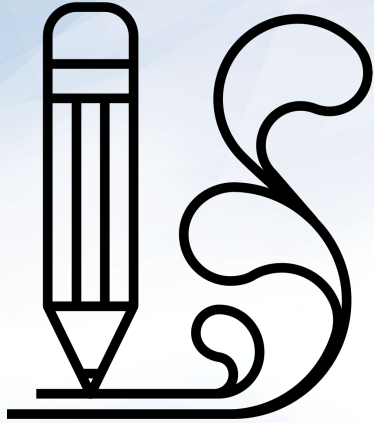


Down-and-Dirty CSS

Web Development Boot Camp
Lesson 2.2



A Few Admin Items



Homework is due!

Don't forget to submit both the GitHub and GitHub Pages links.

Feedback #1: **The 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 during the course.



After the program is over, go back and review the concepts you need a refresher on.



Don't 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 and 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 review your code with you, offer tips on homework, or just give you a pep talk if that's what you need.



Reach out to your Student Success Manager (SSM) if you want to schedule a one-on-one meeting with them.

Feedback #2: **Books, Please!**

Feedback #2: Books, Please!



During the program, concentrate all your efforts on what we're covering in class.



Books can be helpful when you're learning on your own, but in a boot camp like this, they can be distracting—especially when class is moving so quickly.



When you're at home, focus your efforts on completing your homework, reviewing in-class exercises, and going over slides.



Invest in books and outside tutorials after you finish the program.



That said, if you truly feel the
need for outside resources...



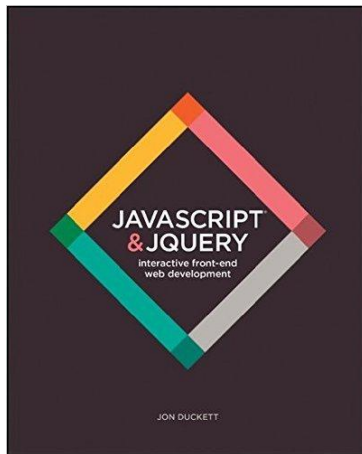
PluralSight.com offers some of the best online courses for HTML, CSS, JavaScript, Node, Express, and Angular.

Feedback #2: Books, Please!

Jon Duckett's books *HTML & CSS* and *JavaScript & jQuery* are two excellent primers. If you're a book person, these can be very helpful!



HTML & CSS: Design and Build Websites
by Jon Duckett
(Wiley, 2011)

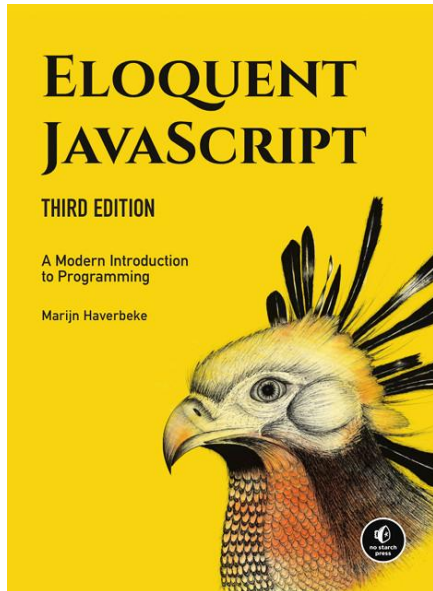


JavaScript & jQuery: Interactive Front-End Web Development
by Jon Duckett
(Wiley, 2014)

Feedback #2: Books, Please!

Eloquent JavaScript is a terrific, free book that reviews the fundamentals of JavaScript.

You can find it here: eloquentjavascript.net



Eloquent JavaScript, 3rd Edition
by Marijn Haverbeke
(No Starch Press, 2018)

Feedback #3: **The Homework Is Hard**

Feedback #3: The Homework Is Hard



Check your homework due dates in Boot Camp Spot.



Generally speaking, expect homework to be challenging.



Make sure you're setting aside a solid block of time for each assignment.



If you find yourself working on an assignment for over two hours without even a small amount of progress, let us know!



You don't win points in life for staring at a blank screen.

Today's Class

Objectives

In today's class, we'll introduce:



CSS Typography and Google Fonts



Pseudo-Classes



The Basics of Twitter Bootstrap

CSS Typography

Typography Is Huge

Typography plays a huge role in the visual aesthetic and emotional identity of a webpage.



Typographic Properties

Typographic properties describe attributes of the type on the page.



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

[Golden Ratio Calculator](#)



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

smashingmagazine.com



Line Length: Not a CSS property but rather a standard. Should be about 50–75 characters per line on a desktop. baymard.com

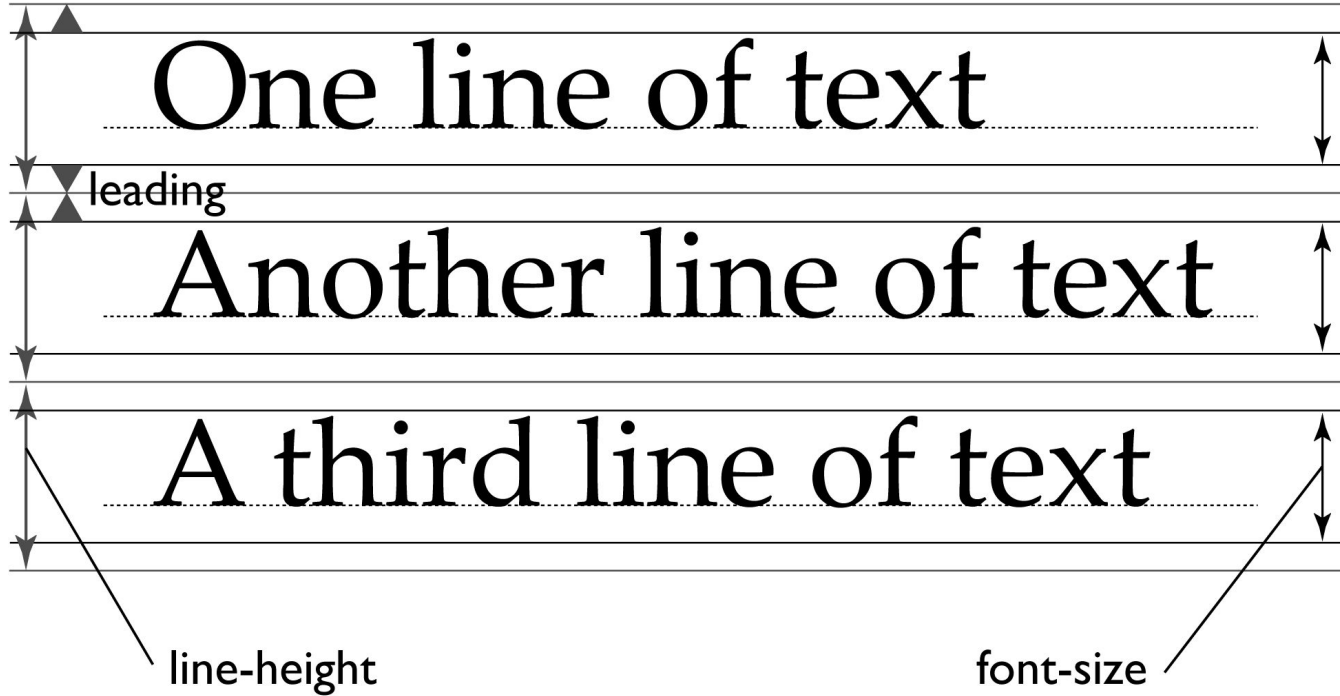


Letter Spacing: Spacing between individual letters. Try to avoid cramming letters together too closely.



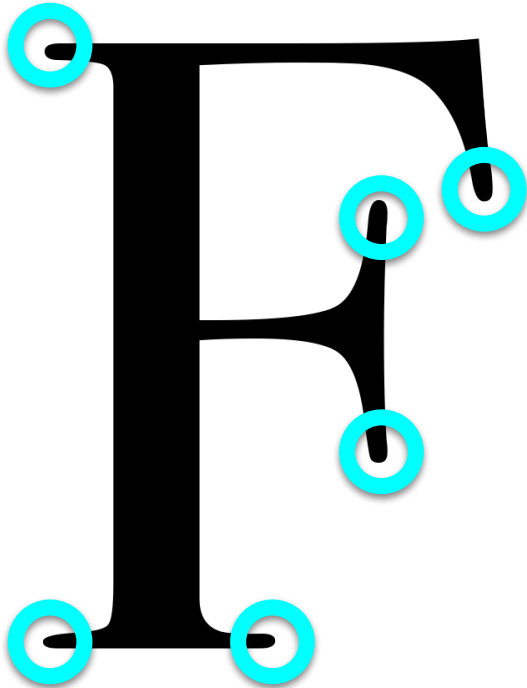
Sans-Serif vs. Serif: Sans-serif are fonts without their *serifs*—no tails. They're easier to read online.

Line Height vs. Fonts

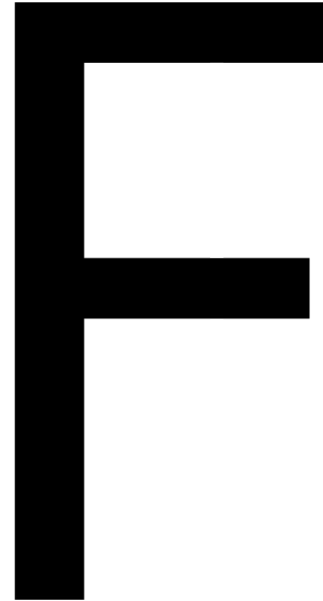


Serif vs. Sans-Serif

Serif fonts include small lines attached to the end strokes of letters.



Sans-Serif (“without serif”) do not include such strokes.



Activity: CSS Typography

Using the `html-template` file provided to you, create an external CSS stylesheet to modify the typography of each of the body paragraphs.

Use CSS styling to modify the following properties:

- Font-family
- Font-size
- Font-weight
- Line-height
- Letter-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/>).

Suggested Time: 10 minutes



Google Fonts

It's easy to incorporate [Google's custom fonts](#) into your site!

Roboto

Christian Robertson

All their equipment
and instruments
are alive.

Coiny

Marcelo Magalhães

**A red flare silhouetted
the jagged edge of a
wing.**



Instructor Demonstration

Custom Fonts

Activity: Custom Google Fonts

Assignment:

Create (or re-use) an HTML document and then incorporate 2–3 custom Google fonts (fonts.google.com) into the page.

Bonus:

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

Suggested Time: 11 minutes



Pseudo Styles

Pseudo-Classes

CSS provides keywords that can be added to selectors. These keywords can highlight the special states of the selected element.

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: developer.mozilla.org

| Index of standard pseudo-classes | | | | |
|----------------------------------|-----------------------------|----------------------------------|---------------------------------|-----------------------|
| <code>:active</code> | <code>:first-child</code> | <code>:last-child</code> | <code>:only-child</code> | <code>:root</code> |
| <code>:any</code> | <code>:first-of-type</code> | <code>:last-of-type</code> | <code>:only-of-type</code> | <code>:scope</code> |
| <code>:checked</code> | <code>:fullscreen</code> | <code>:left</code> | <code>:optional</code> | <code>:target</code> |
| <code>:default</code> | <code>:focus</code> | <code>:link</code> | <code>:out-of-range</code> | <code>:valid</code> |
| <code>:dir()</code> | <code>:hover</code> | <code>:not()</code> | <code>:placeholder-shown</code> | <code>:visited</code> |
| <code>:disabled</code> | <code>:indeterminate</code> | <code>:nth-child()</code> | <code>:read-only</code> | |
| <code>:empty</code> | <code>:in-range</code> | <code>:nth-last-child()</code> | <code>:read-write</code> | |
| <code>:enabled</code> | <code>:invalid</code> | <code>:nth-last-of-type()</code> | <code>:required</code> | |
| <code>:first</code> | <code>:lang()</code> | <code>:nth-of-type()</code> | <code>:right</code> | |

Button with Various States

You can use pseudo-classes to define how a button appears in various states.



Default State



Hover State



Focus State



Active State



Instructor Demonstration

Pseudo Styles

Activity: Pseudo Styles

Assignment:

Create a series of links and modify the pseudo-classes associated with their default, active, hover, and focus states.

Bonus:

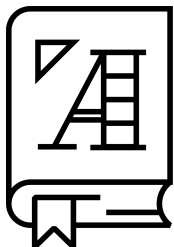
If you finish early, incorporate a pseudo-class we haven't yet covered. Then Google pseudo-elements and try to incorporate one as well.

Suggested Time: 5 minutes



Beyond CSS Hacking

Quick Refresher on HTML/CSS





HTML: Hypertext Markup Language (Content)

CSS: Cascading Style Sheets (Appearance)

HTML and CSS are the “languages of the web.” Together, they define both the content and the aesthetics of a webpage, including colors, fonts, and content placement. (JavaScript is the third language of the web: it handles logic, animation, etc.)

HTML vs. HTML/CSS

| HTML Alone | HTML and CSS |
|---|---|
| Like writing papers in Notepad. | Like writing papers in Microsoft Word. |
| Used to write unformatted text (i.e, content only). | Used both to write the content <i>and</i> format it (color, font, alignment, layout, etc.). |
|  |  |

How You (Probably) Feel About CSS



A revelation. There is a better way!





Instructor Demonstration

Where's the CSS?

Activity: Where's the CSS?

Take a close look at the Bootstrap-powered HTML document I just sent you.

Be prepared to answer the following two questions:

01

Where does this HTML document draw its styles from?

02

How does our browser know which HTML element to style, and in which way?
(e.g., button face or background banner)

HINT: Think about how Google Fonts work.

Suggested Time: 5 minutes



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>
```

Predefined CSS Class (e.g., 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

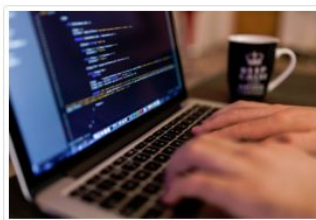
Even Smaller Header

✉ Learn more

class="jumbotron"



Lorem ipsum dolor sit amet, consectetur adipisicing elit. Quis, molestiae modi accusantium animi magnam veniam, impedit asperiores sint consequuntur debitis fugit quibusdam dolor, iusto sed porro ab minus voluptatibus amet.



Lorem ipsum dolor sit amet, consectetur adipisicing elit. Accusamus, maiores, quos. At, animi, facilis. Alias itaque ab minima rerum, eaque animi nesciunt harum nemo est cumque voluptas, qui reprehenderit atque.



Using Bootstrap gives us
predefined CSS styles.

Partner Activity: Predefined CSS



Think of a few reasons why you'd want to use predefined CSS.



Think of a few scenarios where you'd want to use predefined CSS instead of custom CSS.



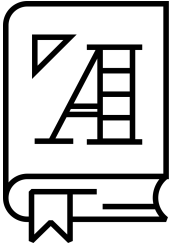
HINT: You should be explaining why Bootstrap's predefined CSS is a big deal.

Suggested Time: 5 minutes



What Is Bootstrap?

Bootstrap Definition



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.



Bootstrap documentation: getbootstrap.com

Why Use Bootstrap?

Reason #1: UI Kit



Familiarize yourself with Bootstrap's UI features by reading the documentation.



Once Bootstrap is active, you can simply copy snippets from the documentation to save yourself the time it takes to create elements from scratch!



Why Use Bootstrap?

Reason #2: Mobile Responsiveness






One of the most compelling reasons to use Bootstrap is that it is mobile-responsive by default.



This means that your website will automatically look great when viewed on screens ranging from monitors to tablets to phones.



HTML/CSS/Bootstrap Analogy

| HTML Alone | HTML and CSS | HTML/CSS and Bootstrap |
|---|---|---|
| Like writing papers in Notepad. | Like writing papers in Microsoft Word. | Like writing papers in Microsoft Word <i>using a template</i> . |
| Used to write unformatted text (i.e., content only). | Used both to write the content <i>and</i> format it (color, font, alignment, layout, etc.). | You can still customize it, but you're starting with a pre-built style and aesthetic. |
|  |  |  |

Key Bootstrap Features

Bootstrap Components

Bootstrap offers a wide range of components that you should consider including in your future web projects. Flip through the documentation and incorporate elements as you see fit.

| Bootstrap Components | | | | |
|----------------------|-------------|-------------|------------------|-------|
| Glyphicons | Navs | Badges | Progress bars | Wells |
| Dropdowns | Navbar | Jumbotron | Media object | |
| Button groups | Breadcrumbs | Page header | List group | |
| Button dropdown | Pagination | Thumbnails | Panels | |
| Input groups | Labels | Alerts | Responsive embed | |

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 jumbotron-style component for calling extra attention to featured content or information.

Learn More

```
<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 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="exampleInputEmail1">Email address</label>
    <input type="email" class="form-control" id="exampleInputEmail1" 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 Demonstration

Bootstrap Components

Group Activity: Bootstrap Components

Working with your group members:

01

Navigate to the Twitter Bootstrap website.

02

Copy the link to the Bootstrap CSS file into one of your old HTML files.

03

Look through the Bootstrap CSS or Components list and incorporate at least three Bootstrap elements into your page.

04

Slack a screenshot of your page to your section's channel when you finish.

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

Suggested Time: 15 minutes





Takeaways

Takeaways

It's the end of class! By now, you should be able to:

01

Provide a loose definition of *typography* and list a few CSS properties that can be used to style it.

02

Offer a practical example of using pseudo-classes.

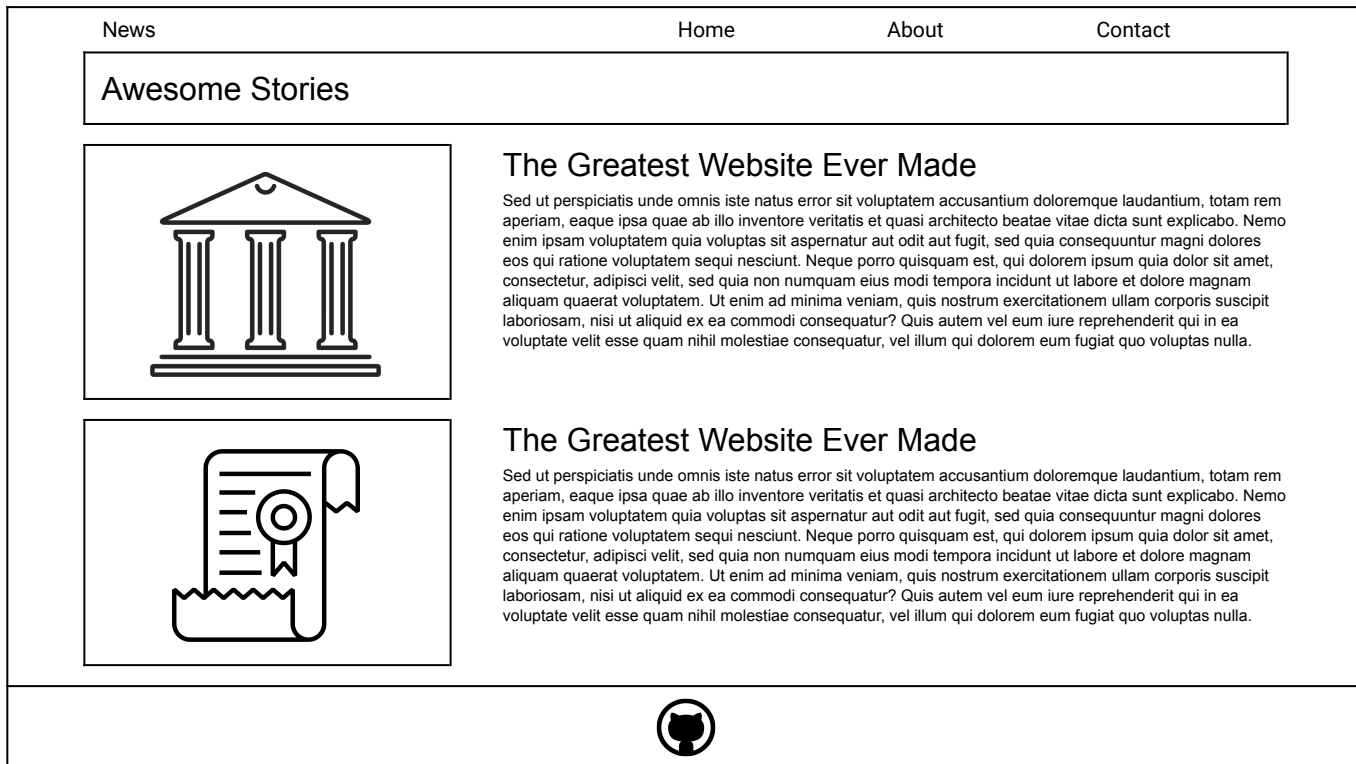
03

Understand generally what Twitter Bootstrap is and why predefined CSS frameworks are so powerful.

04

Know how to incorporate the Twitter Bootstrap style library into your website.

Next Class: Layout Building!





Questions?