PROFESSIONAL & CONTINUING EDUCATION

UNIVERSITY *of* WASHINGTON

LESSON 6: Bootstrap 4

HTML 300

OVERVIEW

1. Intro To Bootstrap
2. CSS Components
3. Grid System
4. Widgets
5. In Class Exercise
6. Assignment 6

INTRO TO BOOTSTRAP

BOOTSTRAP

- Bootstrap is an open source CSS front-end framework
- Built in UI components to save time on development
- Responsive to tablet and mobile
- Cross browser compatible.

BOOTSTRAP SETUP

- You will use a CDN or Content Delivery Network to add Boostrap to your project. You have already done something like this in JQuery

```
<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap
/4.1.1/css/bootstrap.min.css" integrity="sha384-WskhaSGFgHYWDcbwN70/
dfYBj47jz9qbsMId/iRN3ewGhXQFZCSftd1LZCfmhktB"
    crossorigin="anonymous">
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"
integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
    crossorigin="anonymous">
</script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3
/umd/popper.min.js" integrity="sha384-ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUA
dn689aCwoqbBJiSnjAK/l8WvCWPIPm49"
    crossorigin="anonymous">
</script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/js/
bootstrap.min.js" integrity="sha384-smHYKdLADwkXOn1EmN1qk/HfnUcbVRZyYmZ4qp
Pea6sjB/pTJ0euyQp0Mk8ck+5T"
    crossorigin="anonymous">
</script>
```

DISPLAY SIZE WITHOUT BOOTSTRAP DISPLAY CLASS

```
<h1>Display One</h1>
  <h1>Display Two</h1>
  <h1>Display Three</h1>
  <h1>Display Four</h1>
```

Display One

Display Two

Display Three

Display Four

DISPLAY SIZE WITH BOOTSTRAP DISPLAY CLASS

- Notice the size difference using classes instead of CSS

```
<h1 class="display-1">Display One
</h1>
    <h1 class="display-2">
Display Two</h1>
    <h1 class="display-3">
Display Three</h1>
    <h1 class="display-4">
Display Four</h1>
```

Display One

Display Two

Display Three

Display Four

PARAGRAPH WITH OUT BOOTSTRAP LEAD CLASS

```
  <p>Lorem ipsum dolor sit amet,
consectetur adipisicing elit.
Aperiam dolore repellendus veniam consequatur vero
numquam
     voluptatem quam ab
expedita eum, ipsam? Necessitatibus dicta quaerat, vitae
dolorum, dolor autem reiciendis sapiente.</p>
```

eum, ipsam? Necessitatibus dicta quaerat, vitae dolorum, dolor autem reiciendis sapiente.

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Aperiam dolore repellendus veniam consequatur vero numquam voluptatem quam ab expedita eum, ipsam? Necessitatibus dicta quaerat, vitae dolorum, dolor autem reiciendis sapiente.

W

PARAGRAPH WITH BOOTSTRAP LEAD CLASS

The text of the paragraph becomes larger and more pronounced

```
  <p class="lead">Lorem ipsum dolor sit amet,
consectetur adipisicing elit.
Aperiam dolore repellendus veniam consequatur vero
numquam oluptatem quam ab expedita eum, ipsam?
Necessitatibus dicta quaerat, vitae dolorum, dolor autem
reiciendis sapiente.</p>
```

sam, ipsam? Necessitatibus dicta quaerat, vitae dolorum, dolor autem reiciendis sapiente.

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Aperiam dolore repellendus veniam consequatur vero numquam voluptatem quam ab expedita eum, ipsam? Necessitatibus dicta quaerat, vitae dolorum, dolor autem reiciendis sapiente.

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TEXT TRANFORM

```
<p>MAKE LOWERCASE</p>
<p>make uppercase</p>
<p>make capitalized</p>
```

MAKE LOWERCASE

make uppercase

make capitalized

TEXT TRANFORM WITH BOOSTRAP

```
<p class="text-lowercase">MAKE LOWERCASE</p>
  <p class="text-uppercase">make uppercase</p>
  <p class="text-capitalize">make capitalized</p>
```

Italic Text
Italic Text

make lowercase

MAKE UPPERCASE

Make Capitalized

W

INLINE LISTS

```
<ul>
    <li>Lorem ipsum</li>
    <li>Lorem ipsum </li>
    <li>Lorem ipsum </li>
  </ul>
```

- Lorem ipsum
- Lorem ipsum
- Lorem ipsum

W

INLINE LISTS WITH BOOTSTRAP CLASSES

The class of "list-inline", gets rid of the list styling.

The class of "list-inline-item", keeps the li elements inline.

```html
<ul class="list-inline">
   <li class="list-inline-item">Lorem ipsum</li>
   <li class="list-inline-item">Lorem ipsum </li>
   <li class="list-inline-item">Lorem ipsum </li>
</ul>
```

Lorem ipsum   Lorem ipsum   Lorem ipsum

W

TEXT ALIGNMENT

```html
<p class="text-left">Text aligned left</p>
<p class="text-center">Text aligned center</p>
<p class="text-right">Text aligned right</p>
```

Text aligned left

Text aligned center

Text aligned right

Right aligned on small or larger

INLINE

To change a block element to an inline element use class "d-inline". Normally "Hello" and "Goodbye" would be on different lines. But, because I used "d-inline", they are in the same line.

```
<h1 class="d-inline">Hello</h1>
<h1 class="d-inline">Goodbye</h1>
```

baseline top bottom middle text-top text-bottom

HelloGoodbye

INLINE BLOCK

If you want two div elements next to each other user the class "d-inline-block"

```
  <div class="d-inline-block">
   <h3>Hello</h3>
   This is inline
 </div>
 <div class="d-inline-block">
   <h3>Hello</h3>
   This is inline
 </div>
</div>
```

Hello   Hello

This is inline This is inline

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COLORS FOR TEXT

This works for text and links.

```html
    <p class="text-primary">Text Primary Color</p>
        <p class="text-secondary">Text Secondary
Color</p>
        <p class="text-success">Text Success Color</p>
        <p class="text-info">Text Info Color</p>
        <p class="text-warning">Text Warning Color</p>
        <p class="text-danger">Text Danger Color</p>
        <p class="text-light">Text Light Color</p>
        <p class="text-dark">Text Dark Color</p>
        <p class="white">Text White Color</p>
        <p class="muted">Text Muted</p>
        <p class="text-black-50">Text Black 50</p>
        <p class="text-white-50">Text White 50</p>
```

Text Primary Color

Text Secondary Color

Text Success Color

Text Info Color

Text Warning Color

Text Danger Color

Text Light Color

Text Dark Color

Text White Color

Text Muted

Text Black 50

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BACKGROUND COLORS

```html
<div class="bg-primary">Background Primary Color</div>
    <div class="bg-secondary">Background Secondary Color</div>
    <div class="bg-success">Background Success Color</div>
    <div class="bg-info">Background Info Color</div>
    <div class="bg-warning">Background Warning Color</div>
    <div class="bg-danger">Background Danger Color</div>
    <div class="bg-light">Background Light Color</div>
    <div class="bg-dark">Background Dark Color</div>
    <div class="bg-white">Background White Color</div>
    <div class="bg-transparent">Background Transparent</div>
```

Background Primary Color
Background Secondary Color
Background Success Color
Background Info Color
Background Warning Color
Background Danger Color
Background Light Color
Background Dark Color
Background White Color
Background Transparent
Hello

W

SPACING MARGIN AND PADDING

You can add margin or padding using 0-5. 0 is for none, 5 is for max.

```
//Margin Top Of Five
class="mt-5"
//Padding on left and right of 3
class="px-3"
//Margin top and bottom of 2
class="my-2"
//Padding all around of 3
class="p-3"
```

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HEIGHT AND WIDTH

You can control how much of the width or height the element takes of its parent div.

```
//Take 25% of parent div
class="w-25"
//Takes 50% of parent div
class="h-50"
```

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CSS COMPONENTS

BUTTONS

- Buttons have the same color schemes as text.

```
<button class="btn btn-primary">Primary</button>>
```

Primary

- We can also make buttons large.

```
<button class="btn btn-lg btn-primary">Primary</button>
```

Primary

- We can also make button smaller

```
<button class="btn btn-sm btn-primary">Primary</button>
```

Primary

- These can also be used for a tags and inputs

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BUTTONS

- Buttons can change on hover

```
<button class="btn btn-outline-primary">Primary</button>
```

Primary Outline

- When hovering over the button it changes to.

Primary Outline

BUTTON GROUPS

```html
<div class="btn-group">
        <button class="btn btn-primary">Left</button>
        <button class="btn btn-danger">Middle</button>
        <button class="btn btn-warning">Right</button>
    </div>
```



```html
<div class="btn-group-vertical">
        <button class="btn btn-primary">Left</button>
        <button class="btn btn-danger">Middle</button>
        <button class="btn btn-warning">Right</button>
    </div>
```

NAVBAR

Here is code for a collapsible navbar:

```html
<nav class="navbar navbar-expand-lg navbar-dark bg-dark">
    <div class="container">
        <a class="navbar-nav" href="#">Navbar</a>
        <button class="navbar-toggler" data-toggle="collapse"
          data-target="#navbarNav"
        ><span class="navbar-toggler-icon"></span></button>
        <div id="navbarNav" class="collapse navbar-collapse">
          <ul class="navbar-nav">
              <li class="nav-item">
                  <a class="nav-link" href="#">Home</a>
              </li>
              <li class="nav-item">
                  <a class="nav-link" href="#">ES6</a>
              </li>
              <li class="nav-item">
                  <a class="nav-link" href="#">CSS</a>
              </li>
              <li class="nav-item">
                  <a class="nav-link" href="#">VUE</a>
              </li>
          </ul>
        </div>
    </div>
</nav>
```

NAVBAR

- Here is what it looks like on a large screen

- Here is what it looks like on a small screen, notice the hamburger looking icon. When you click on it, the menu expands.

NAVBAR

So what do all these terms mean?

```
<nav class="navbar navbar-expand-lg navbar-dark bg-dark">

</nav>
```

- The nav element is an HTML5 element.

- The class navbar lets your browser know it is a navbar.

- Navbar-expand-lg, the navbar will only expand on large screens; anything less and you will see the hamburger icon.

- Navbar-dark and bg-dark make the navbar and background color dark.

NAVBAR

```
<div class="container"></div>navbar-nav
```

- A container class pushed the element into the middle. Give some padding around the element

```
<button class="navbar-toggler" data-toggle="collapse"
        data-target="#navbarNav"
      ><span class="navbar-toggler-icon"></span>
    </button>
```

- This is for the hamburger icon.

- The data-target "#navbarNav" is the id for div that wraps the "ul", so when you click on the hamburger the menu expands.

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FORMS

For every input in a form you are going to surround it with a div that has a class of "form-group".

Then in your input you are going to add the class "form-control"

```
<div class="form-group">
            <label for="name">Name</label>
            <input class="form-control" type="text"
id="name" placeholder="Enter name">
        </div>
```

Name

Enter name

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FORM SUBMIT BUTTON

For buttons on forms you can add btn-block. This will make the button take up the entire width of the from

```
<button type="submit" class="btn btn-primary btn-block">Submit</button>
```

Submit

W

ALERTS

Alerts are great way to get a message to your user.

Alerts share the same colors as buttons.

```
<div class="alert alert-success alert-dismissible">
        <button type="button" class="close" data-dismiss="alert">
            <span>&times;</span>
        </button>
        <strong>Dismissable</strong> Blog post added
    </div>
```

Dark Please check the log files

Dismissable Blog post added   ×

W

ALERTS

The alert lets the browser know that this is an alert.

The alert-success gives it is color.

The alert-dismissible allows the user to close the alert.

For the button you use a class of "close" and data-dismiss of "alert" so the user can close the alert

```html
<div class="alert alert-success alert-dismissible">
        <button type="button" class="close" data-dismiss="alert">
            <span>&times;</span>
        </button>
        <strong>Dismissable</strong> Blog post added
    </div>
```

CARDS

```html
<div class="card">
        <div class="card-header">
            My Card Header
        </div>
        <div class="card-body text-center">
            <h4 class="card-title ">Card Title Goes Hers</h4>
            <p class="card-text">Lorem ipsum dolor sit amet,
consectetur adipisicing.</p>
            <a class="btn btn-success" href="#">Read More Online</a>
        </div>
        <div class="card-footer text-danger">
            This is a card footers
        </div>
    </div>
```

My Card Header

Card Title Goes Hers

Lorem ipsum dolor sit amet, consectetur adipisicing.

Read More Online

This is a card footer

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Grid System

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GRID SYSTEM

- The Grid system is probably the best reason to use Bootstrap.
- You can control how many columns different elements take up on a desktop, tablet, and phone.
- The is no need for CSS media queries because that is done for you.
- You can set the columns sizes to change based on small, medium, large, and extra large.

W

GRID

```
<div class="row">
  <div class="col-xl-2 col-lg-8 col-sm-6 col-12 bg-success p-5" >
    <ul>
      <li>Some Text</li>
      <li>Some Text</li>
      <li>Some Text</li>
      <li>Some Text</li>
    </ul>
  </div>
  <div class="col-xl-10 col-lg-4 col-sm-6 col-12 bg-danger p-5">
    <ul>
      <li>Some Text</li>
      <li>Some Text</li>
      <li>Some Text</li>
      <li>Some Text </li>
    </ul>
  </div>
</div>
```

W

EXTRA LARGE SCREEN

- Some Text
- Some Text
- Some Text
- Some Text

- Some Text
- Some Text
- Some Text
- Some Text

MEDIUM SCREEN

- Some Text
- Some Text
- Some Text
- Some Text

- Some Text
- Some Text
- Some Text
- Some Text

SMALL SCREEN

<div>

- Some Text
- Some Text
- Some Text
- Some Text

- Some Text
- Some Text
- Some Text
- Some Text

</div>

W

EXTRA SMALL SCREEN

- Some Text
- Some Text
- Some Text
- Some Text

- Some Text
- Some Text
- Some Text
- Some Text

W

Widgets

COLLAPSE

- You can hide element that will appear when you click on a button.

- Adding data-toggle "collapse" tells the browser that this is going to be used for collapse.

- The data target is for the id of what will collapse.

```
<button class="btn btn-primary d-block mb-4" data-
toggle="collapse"
    data-target="#data">Read More</button>


    <div class="collapse" id="data">
      <div>
        <div>
          Look at me. Look at me. Look at me. Look at me. Look
at me.
        </div>
      </div>
    </div>
```

COLLAPSE

- Here is the Button

    Read More

- Here is what happens when you click on the button.

    Read More

    Look at me. Look at me. Look at me. Look at me. Look at me.

W

ACCORDION

- An accordion is a great way to not overwhelm the user with content.

```html
<div id="accordion">
 <div class="card">
    <div class="card-header">
      <h5>
        <a href="#one" data-parent="#accordion"

        data-toggle="collapse">
          One
        </a>
      </h5>
    </div>
    <div id="one" class="collapse show">
      <div class="card-body">
        Hello One
      </div>
    </div>
</div>
```

W

ACCORDION

```html
    </div>
    <div class="card">
      <div class="card-header">
        <h5>
          <a href="#two"
    data-parent="#accordion" data-toggle="collapse">
            Two
          </a>
        </h5>
      </div>
      <div id="two" class="collapse">
        <div class="card-body">
          Hello Two
        </div>
      </div>
    </div>
```
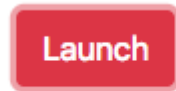
W

ACCORDION

- We set the id to "accordion" so the child elements know which element to refer to.

- The <a> tag has an href so when you click on it, it will open the content.

- Then the id of the element is the same as the href.

- The content element also has a class of "collapse" and "show", "show" is so the first element will show.

W

ACCORDION

- On start.

- Open Two.

- All of them closed.

MODAL

```html
<button class="btn btn-danger" data-toggle="modal" data-target="#hellomodal">Launch</button>


    <!-- MODAL -->
    <div class="modal" id="hellomodal">
      <div class="modal-dialog">
        <div class="modal-content">
          <div class="modal-header">
            <h5 class="modal-title">Modal Title</h5>
            <button class="close" data-dismiss="modal">&times;</button>
          </div>
          <div class="modal-body">
          I am a modal
          </div>
          <div class="modal-footer">
            <button class="btn btn-info" data-dismiss="modal">Close</button>
          </div>
        </div>
      </div>
    </div>
```
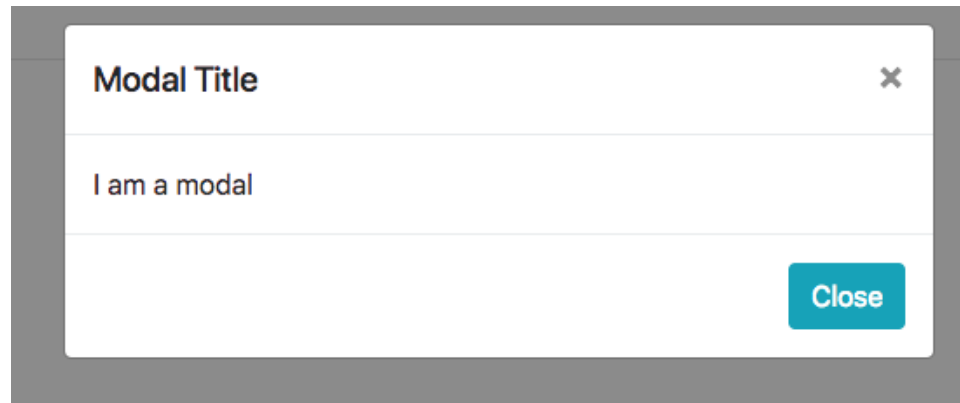
W

MODAL

- Here is the button

- Here is the modal when you click on the button

Activity

ACTIVITY

Create a form using Bootstrap 4 and jQuery.

The form has two buttons.

One that has "click me" and other has "submit".

The submit button should be greyed out and unclickable (the form should not submit).

When you hover over the submit button a tooltip should appear letting the user know to click the other button.

ACTIVITY

- Once the user clicks on the other button, the submit button should no longer be greyed out, clickable (form will submit), and tooltip should not show when you hover over it.

QUESTIONS

html3@uw.edu

As always feel free to contact the instructional team if you have any questions. They do have a full-time jobs, so they might not get back to you immediately.

If you do not hear back from them in 48 hours, please try again.