

# Front-end Essentials

*Bootstrap 4 – Common Components*



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- Commonly Components
- Utilities

# Lesson Objectives

- Able to use Components of Bootstrap 4 to create complex web app
- Some utilities of Bootstrap 4

## Section 1

# Common Components

- Navigation Bar
- Breadcrumb
- Table
- Forms
- Buttons
- Images
- Icons
- Dropdown
- Pagination
- Label
- Badges
- Alert
- Progress bar
- List Group

- Provide contextual feedback messages for typical user actions with the handful of available and flexible alert messages.

```
<div class="alert alert-primary" role="alert"> A  
simple primary alert—check it out! </div>  
<div class="alert alert-secondary" role="alert">  
A simple secondary alert—check it out! </div>  
<div class="alert alert-success" role="alert"> A  
simple success alert—check it out! </div>  
<div class="alert alert-danger" role="alert"> A  
simple danger alert—check it out! </div>  
<div class="alert alert-warning" role="alert"> A  
simple warning alert—check it out! </div>  
<div class="alert alert-info" role="alert"> A  
simple info alert—check it out! </div>  
<div class="alert alert-light" role="alert"> A  
simple light alert—check it out! </div>  
<div class="alert alert-dark" role="alert"> A  
simple dark alert—check it out! </div>
```

A simple primary alert—check it out!

A simple secondary alert—check it out!

A simple success alert—check it out!

A simple danger alert—check it out!

A simple warning alert—check it out!

A simple info alert—check it out!

A simple light alert—check it out!

A simple dark alert—check it out!

- Alerts can also contain additional HTML elements like headings, paragraphs and dividers.

## Well done!

Aww yeah, you successfully read this important alert message. This example text is going to run a bit longer so that you can see how spacing within an alert works with this kind of content.

---

Whenever you need to, be sure to use margin utilities to keep things nice and tidy.

```
<div class="alert alert-success" role="alert">
<h4 class="alert-heading">Well done!</h4>
<p>Aww yeah, you successfully read this important alert message. This example text is going
to run a bit longer so that you can see how spacing within an alert works with this kind of
content.</p>
<hr>
<p class="mb-0">Whenever you need to, be sure to use margin utilities to keep things nice
and tidy.</p> </div>
```

- Documentation and examples for badges, our small count and labeling component.

```
<h1>Example heading <span class="badge badge-secondary">New</span></h1> <h2>Example heading <span class="badge badge-secondary">New</span></h2> <h3>Example heading <span class="badge badge-secondary">New</span></h3> <h4>Example heading <span class="badge badge-secondary">New</span></h4> <h5>Example heading <span class="badge badge-secondary">New</span></h5> <h6>Example heading <span class="badge badge-secondary">New</span></h6>
```

Example heading **New**

Example heading **New**

Example heading **New**

Example heading **New**

Example heading **New**

Example heading **New**



- Badges can be used as part of links or buttons to provide a counter.



```
<button type="button" class="btn btn-primary"> Notifications <span  
class="badge badge-light">4</span> </button>
```

- Indicate the current page's location within a navigational hierarchy that automatically adds separators via CSS.

Home

[Home](#) / Library

[Home](#) / [Library](#) / Data

```
<nav aria-label="breadcrumb"> <ol class="breadcrumb"> <li class="breadcrumb-item active" aria-current="page">Home</li> </ol> </nav>
```

```
<nav aria-label="breadcrumb"> <ol class="breadcrumb"> <li class="breadcrumb-item"><a href="#">Home</a></li> <li class="breadcrumb-item active" aria-current="page">Library</li> </ol> </nav>
```

```
<nav aria-label="breadcrumb"> <ol class="breadcrumb"> <li class="breadcrumb-item"><a href="#">Home</a></li> <li class="breadcrumb-item"><a href="#">Library</a></li> <li class="breadcrumb-item active" aria-current="page">Data</li> </ol> </nav>
```

- Use Bootstrap's custom button styles for actions in forms, dialogs, and more with support for multiple sizes, states, and more.



```
<button type="button" class="btn btn-primary">Primary</button>  
<button type="button" class="btn btn-secondary">Secondary</button>  
<button type="button" class="btn btn-success">Success</button>  
<button type="button" class="btn btn-danger">Danger</button>  
<button type="button" class="btn btn-warning">Warning</button>  
<button type="button" class="btn btn-info">Info</button>  
<button type="button" class="btn btn-light">Light</button>  
<button type="button" class="btn btn-dark">Dark</button>  
<button type="button" class="btn btn-link">Link</button>
```

- Group a series of buttons together on a single line with the button group, and super-power them with JavaScript.

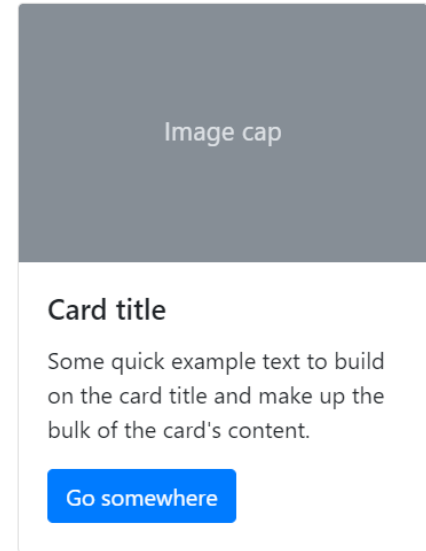


```
<div class="btn-group" role="group" aria-label="Basic example">  
<button type="button" class="btn btn-secondary">Left</button>  
<button type="button" class="btn btn-secondary">Middle</button>  
<button type="button" class="btn btn-secondary">Right</button>  
</div>
```

- Bootstrap's cards provide a flexible and extensible content container with multiple variants and options.

```
<div class="card" style="width: 18rem;">

<div class="card-body">
<h5 class="card-title">Card title</h5>
<p class="card-text">Some quick example text to build on the card title
and make up the bulk of the card's content.</p>
<a href="#" class="btn btn-primary">Go somewhere</a>
</div>
</div>
```



- A slideshow component for cycling through elements—images or slides of text—like a carousel.



- More detail:  
<https://getbootstrap.com/docs/4.5/components/carousel/>

- Toggle the visibility of content across your project with a few classes and our JavaScript plugins.

Link with href

Button with data-target

Anim pariatur cliche reprehenderit, enim eiusmod high life accusamus terry richardson ad squid. Nihil anim keffiyeh helvetica, craft beer labore wes anderson cred nesciunt sapiente ea proident.

```
<p>
<a class="btn btn-primary" data-toggle="collapse" href="#collapseExample" role="button" aria-
expanded="false" aria-controls="collapseExample"> Link with href </a>
<button class="btn btn-primary" type="button" data-toggle="collapse" data-
target="#collapseExample" aria-expanded="false" aria-controls="collapseExample"> Button with
data-target </button>
</p>
<div class="collapse" id="collapseExample">
<div class="card card-body"> Anim pariatur cliche reprehenderit, enim eiusmod high life accusamus
terry richardson ad squid. Nihil anim keffiyeh helvetica, craft beer labore wes anderson cred nesciunt
sapiente ea proident.
</div>
</div>
```

- Toggle contextual overlays for displaying lists of links and more with the Bootstrap dropdown plugin.



Dropdown button ▼

```
<div class="dropdown">
  <button class="btn btn-secondary dropdown-toggle" type="button" id="dropdownMenuButton"
    data-toggle="dropdown" aria-haspopup="true" aria-expanded="false"> Dropdown button </button>
  <div class="dropdown-menu" aria-labelledby="dropdownMenuButton">
    <a class="dropdown-item" href="#">Action</a>
    <a class="dropdown-item" href="#">Another action</a> <a class="dropdown-item"
    href="#">Something else here</a>
  </div>
</div>
```



- Examples and usage guidelines for form control styles, layout options, and custom components for creating a wide variety of forms.

```
<form>
  <div class="form-group">
    <label for="exampleInputEmail1">Email address</label>
    <input type="email" class="form-control" id="exampleInputEmail1" aria-
describedby="emailHelp"> <small id="emailHelp" class="form-text text-muted">We'll
never share your email with anyone else.</small>
  </div>
  <div class="form-group">
    <label for="exampleInputPassword1">Password</label>
    <input type="password" class="form-control" id="exampleInputPassword1"> </div>
    <div class="form-group form-check">
      <input type="checkbox" class="form-check-input" id="exampleCheck1">
      <label class="form-check-label" for="exampleCheck1">Check me out</label>
    </div>
    <button type="submit" class="btn btn-primary">Submit</button>
  </form>
```

- Demonstrate Bootstrap's form styles

Email address

We'll never share your email with anyone else.

Password

☐ Check me out

Submit

- Easily extend form controls by adding text, buttons, or button groups on either side of textual inputs, custom selects, and custom file inputs.

@

@example.com

```
<div class="input-group mb-3">
  <div class="input-group-prepend">
    <span class="input-group-text" id="basic-addon1">@</span>
  </div>
  <input type="text" class="form-control" placeholder="Username" aria-label="Username" aria-describedby="basic-addon1">
</div>
<div class="input-group mb-3">
  <input type="text" class="form-control" placeholder="Recipient's username" aria-label="Recipient's username" aria-describedby="basic-addon2">
  <div class="input-group-append">
    <span class="input-group-text" id="basic-addon2">@example.com</span>
  </div>
</div>
```

- Lightweight, flexible component for showcasing hero unit style content.

## Hello, world!

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

It uses utility classes for typography and spacing to space content out within the larger container.

[Learn more](#)

- A lightweight, flexible component that can optionally extend the entire viewport to showcase key marketing messages on your site.

```
<div class="jumbotron">
<h1 class="display-4">Hello, world!</h1>
<p class="lead">This is a simple hero unit, a simple jumbotron-style component
for calling extra attention to featured content or information.</p>
<hr class="my-4"> <p>It uses utility classes for typography and spacing to space
content out within the larger container.</p>
<a class="btn btn-primary btn-lg" href="#" role="button">Learn more</a>
</div>
```

- List groups are a flexible and powerful component for displaying a series of content. Modify and extend them to support just about any content within.

```
<ul class="list-group">  
  <li class="list-group-item">Cras justo odio</li>  
  <li class="list-group-item">Dapibus ac facilisis in</li>  
  <li class="list-group-item">Morbi leo risus</li>  
  <li class="list-group-item">Porta ac consectetur ac</li>  
  <li class="list-group-item">Vestibulum at eros</li>  
</ul>
```

Cras justo odio

Dapibus ac facilisis in

Morbi leo risus

Porta ac consectetur ac

Vestibulum at eros

- Documentation and examples for Bootstrap's media object to construct highly repetitive components like blog comments, tweets, and the like.

64x64

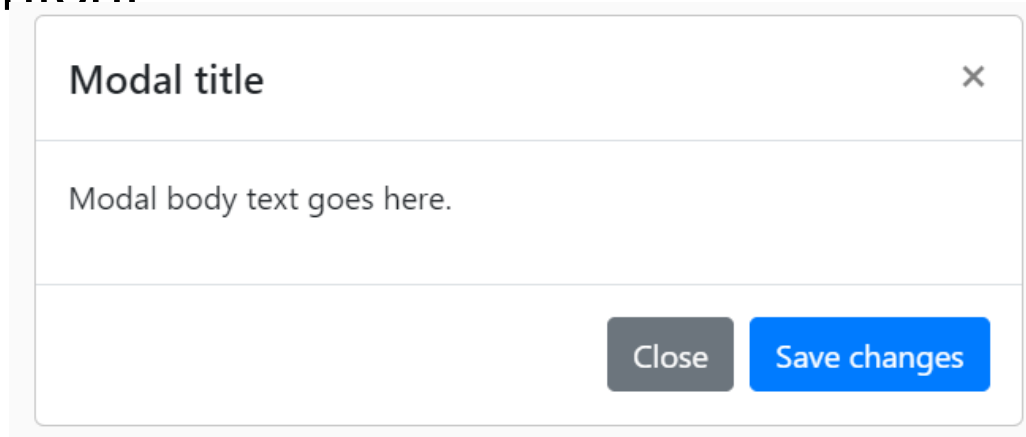
## Media heading

Cras sit amet nibh libero, in gravida nulla. Nulla vel metus scelerisque ante sollicitudin. Cras purus odio, vestibulum in vulputate at, tempus viverra turpis. Fusce condimentum nunc ac nisi vulputate fringilla. Donec lacinia congue felis in faucibus.

```
<div class="media">

<div class="media-body">
<h5 class="mt-0">Media heading</h5> Cras sit amet nibh libero, in gravida nulla. Nulla vel metus scelerisque ante
sollicitudin. Cras purus odio, vestibulum in vulputate at, tempus viverra turpis. Fusce condimentum nunc ac nisi vulputate
fringilla. Donec lacinia congue felis in faucibus.
</div>
</div>
```

- Use Bootstrap's JavaScript modal plugin to add dialogs to your site for lightboxes, user notifications, or completely custom content



- <https://getbootstrap.com/docs/4.5/components/modal/>



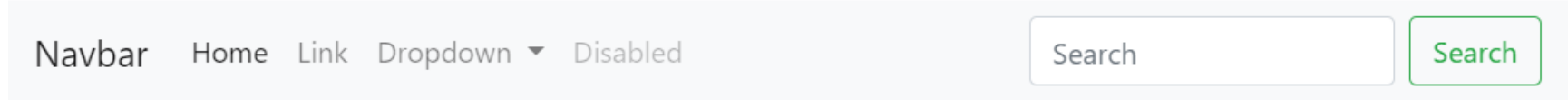
- Documentation and examples for how to use Bootstrap's included navigation components.

Active   Link   Link   Disabled

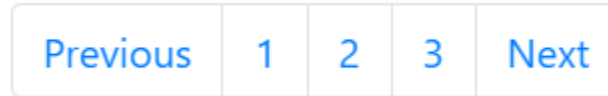
```
<ul class="nav">
  <li class="nav-item"> <a class="nav-link active" href="#">Active</a> </li>
  <li class="nav-item"> <a class="nav-link" href="#">Link</a> </li>
  <li class="nav-item"> <a class="nav-link" href="#">Link</a> </li>
  <li class="nav-item"> <a class="nav-link disabled" href="#" tabindex="-1" aria-
disabled="true">Disabled</a> </li>
</ul>
```

- <https://getbootstrap.com/docs/4.5/components/navs/>

- Documentation and examples for Bootstrap's powerful, responsive navigation header, the navbar. Includes support for branding, navigation, and more, including support for our collapse plugin.
- <https://getbootstrap.com/docs/4.5/components/navbar/>

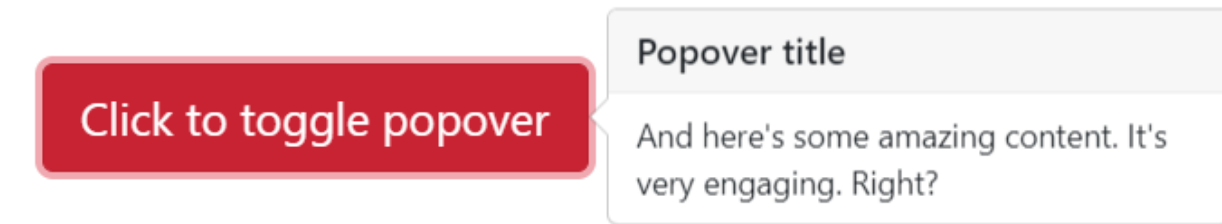


- Documentation and examples for showing pagination to indicate a series of related content exists across multiple pages.



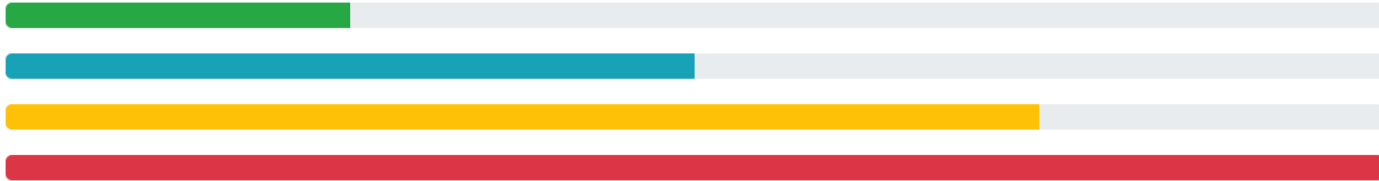
```
<nav aria-label="Page navigation example">
<ul class="pagination">
<li class="page-item"><a class="page-link" href="#">Previous</a></li>
<li class="page-item"><a class="page-link" href="#">1</a></li>
<li class="page-item"><a class="page-link" href="#">2</a></li>
<li class="page-item"><a class="page-link" href="#">3</a></li>
<li class="page-item"><a class="page-link" href="#">Next</a></li>
</ul>
</nav>
```

- Documentation and examples for adding Bootstrap popovers, like those found in iOS, to any element on your site.



```
<button type="button" class="btn btn-lg btn-danger" data-toggle="popover"
title="Popover title" data-content="And here's some amazing content. It's very
engaging. Right?">Click to toggle popover</button>
```

- Documentation and examples for using Bootstrap custom progress bars featuring support for stacked bars, animated backgrounds, and text labels.



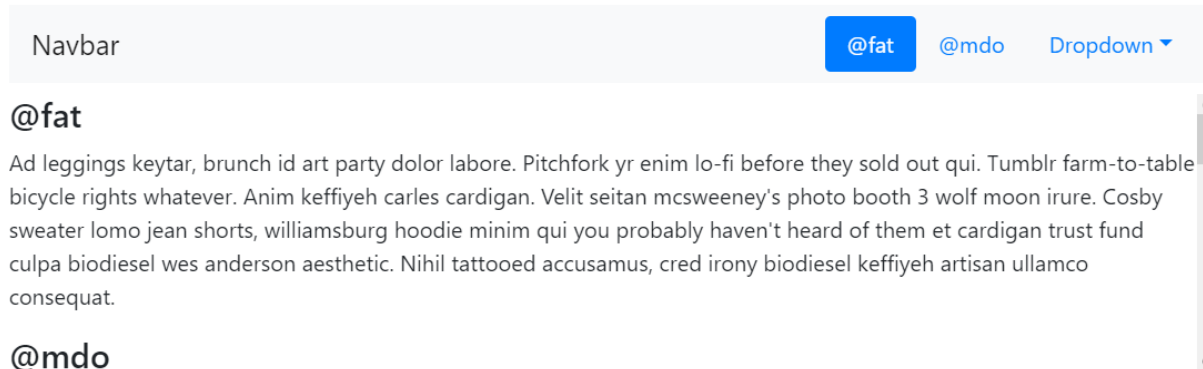
```
<div class="progress"> <div class="progress-bar bg-success" role="progressbar" style="width: 25%" aria-valuenow="25" aria-valuemin="0" aria-valuemax="100"></div> </div>
```

```
<div class="progress"> <div class="progress-bar bg-info" role="progressbar" style="width: 50%" aria-valuenow="50" aria-valuemin="0" aria-valuemax="100"></div> </div>
```

```
<div class="progress"> <div class="progress-bar bg-warning" role="progressbar" style="width: 75%" aria-valuenow="75" aria-valuemin="0" aria-valuemax="100"></div> </div>
```

```
<div class="progress"> <div class="progress-bar bg-danger" role="progressbar" style="width: 100%" aria-valuenow="100" aria-valuemin="0" aria-valuemax="100"></div> </div>
```

- Automatically update Bootstrap navigation or list group components based on scroll position to indicate which link is currently active in the viewport.
- <https://getbootstrap.com/docs/4.5/components/scrollspy/>

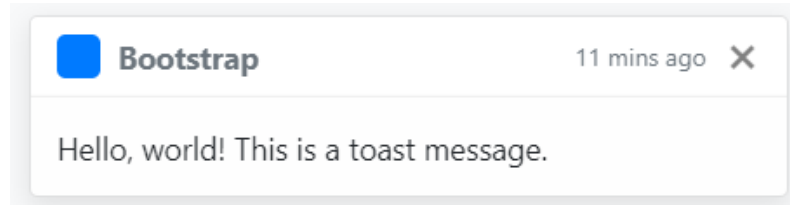


- Indicate the loading state of a component or page with Bootstrap spinners, built entirely with HTML, CSS, and no JavaScript.



```
<div class="spinner-border" role="status">  
<span class="sr-only">Loading...</span>  
</div>
```

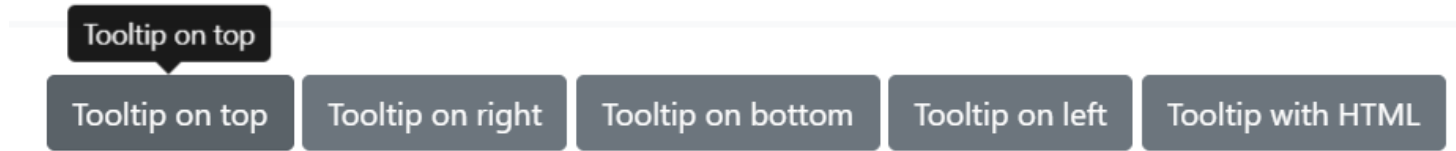
- Push notifications to your visitors with a toast, a lightweight and easily customizable alert message.



```
<div class="toast" role="alert" aria-live="assertive" aria-atomic="true">
  <div class="toast-header">
    
    <strong class="mr-auto">Bootstrap</strong> <small>11 mins ago</small>
    <button type="button" class="ml-2 mb-1 close" data-dismiss="toast" aria-
label="Close">
      <span aria-hidden="true">&times;</span>
    </button>
  </div>
  <div class="toast-body"> Hello, world! This is a toast message. </div>
</div>
```



- Documentation and examples for adding custom Bootstrap tooltips with CSS and JavaScript using CSS3 for animations and data-attributes for local title storage.

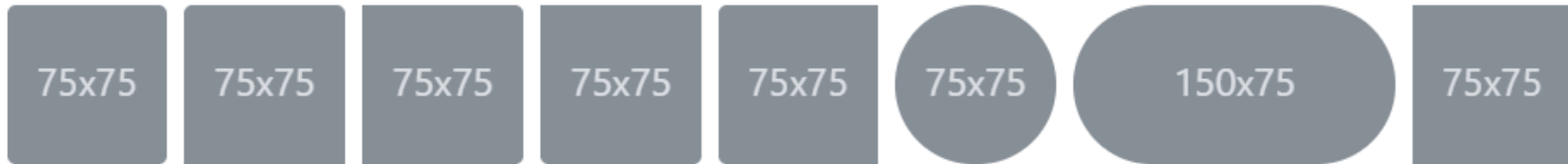


```
<button type="button" class="btn btn-secondary" data-toggle="tooltip" data-placement="top"
title="Tooltip on top"> Tooltip on top </button>
<button type="button" class="btn btn-secondary" data-toggle="tooltip" data-placement="right"
title="Tooltip on right"> Tooltip on right </button>
<button type="button" class="btn btn-secondary" data-toggle="tooltip" data-
placement="bottom" title="Tooltip on bottom"> Tooltip on bottom </button>
<button type="button" class="btn btn-secondary" data-toggle="tooltip" data-placement="left"
title="Tooltip on left"> Tooltip on left </button>
```

## Section 2

# Utilities

- Use border utilities to quickly style the border and border-radius of an element. Great for images, buttons, or any other element.



- Quickly and easily clear floated content within a container by adding a clearfix utility.
- Easily clear floats by adding .clearfix to the parent element. Can also be used as a mixin.

```
<div class="clearfix">...</div>
```

```
// Mixin itself
```

```
@mixin clearfix() {  
    &::after { display: block;  
    content: "";  
    clear: both;  
    }  
}
```

```
// Usage as a mixin
```

```
.element {  
    @include clearfix;  
}
```

- Convey meaning through color with a handful of color utility classes. Includes support for styling links with hover states, too.

`.text-primary`

`.text-secondary`

`.text-success`

`.text-danger`

`.text-warning`

`.text-info`

`.text-light`

`.text-dark`

`.text-body`

`.text-muted`

`.text-white`

`.text-black-50`

`.text-white-50`

- Quickly and responsively toggle the display value of components and more with our display utilities. Includes support for some of the more common values, as well as some extras for controlling display when printing.

d-inline

d-inline

```
<div class="d-inline p-2 bg-primary text-white">d-inline</div>  
<div class="d-inline p-2 bg-dark text-white">d-inline</div>
```

d-block

d-block

```
<span class="d-block p-2 bg-primary text-white">d-block</span>  
<span class="d-block p-2 bg-dark text-white">d-block</span>
```

- Create responsive video or slideshow embeds based on the width of the parent by creating an intrinsic ratio that scales on any device.

```
<div class="embed-responsive embed-responsive-16by9">  
<iframe class="embed-responsive-item"  
src="https://www.youtube.com/embed/zpOULjyy-n8?rel=0"  
allowfullscreen></iframe>  
</div>
```

- Quickly manage the layout, alignment, and sizing of grid columns, navigation, components, and more with a full suite of responsive flexbox utilities. For more complex implementations, custom CSS may be necessary.

I'm a flexbox container!

```
<div class="d-flex p-2 bd-highlight">I'm a flexbox container!  
</div>
```

I'm an inline flexbox container!

```
<div class="d-inline-flex p-2 bd-highlight">I'm an inline flexbox  
container!</div>
```



- Use these shorthand utilities for quickly configuring the position of an element.

```
<div class="position-static">...</div>  
<div class="position-relative">...</div>  
<div class="position-absolute">...</div>  
<div class="position-fixed">...</div>  
<div class="position-sticky">...</div>
```

- **Bootstrap** provides many UI Components that help you to developer faster and easier
- To use a component you must specify correct Bootstrap syntax with corresponding class
- Most Components only need HTML and CSS
- For Dropdown you must add JavaScript

# Thank you

