



Bootstrap

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Session agenda

- ▶ Module 1 : Introduction to Bootstrap
- ▶ Module 2 : Bootstrap elements and components
- ▶ Module 3 : Bootstrap Plugins



MODULE 1

Introduction to Bootstrap

What is Bootstrap?

- ▶ Bootstrap is a free front-end framework for faster and easier web development
- ▶ Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins
- ▶ Bootstrap also gives you the ability to easily create responsive designs



Why Use Bootstrap?

- ▶ **Easy to use:** Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
- ▶ **Responsive features:** Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
- ▶ **Mobile-first approach:** In Bootstrap, mobile-first styles are part of the core framework
- ▶ **Browser compatibility:** Bootstrap 4 is compatible with all modern browsers (Chrome, Firefox, Internet Explorer 10+, Safari, and Opera)



How to Get Bootstrap 4?

- ▶ There are two ways to start using Bootstrap 4 on your own web site.
 - Include Bootstrap 4 from a CDN
 - Download Bootstrap 4 jars

Include Bootstrap 4 from a CDN

<!-- Latest compiled and minified CSS -->

```
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.1.0/css/bootstrap.min.css">
```

<!-- jQuery library -->

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
```

<!-- Popper JS -->

```
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.0/umd/popper.min.js"></script>
```

<!-- Latest compiled JavaScript -->

```
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.1.0/js/bootstrap.min.js"></script>
```



Creating web page using Bootstrap

1. Add the HTML5 doctype

```
<!DOCTYPE html>  
<html lang="en">  
  <head>  
    <meta charset="utf-8">  
  </head>  
</html>
```

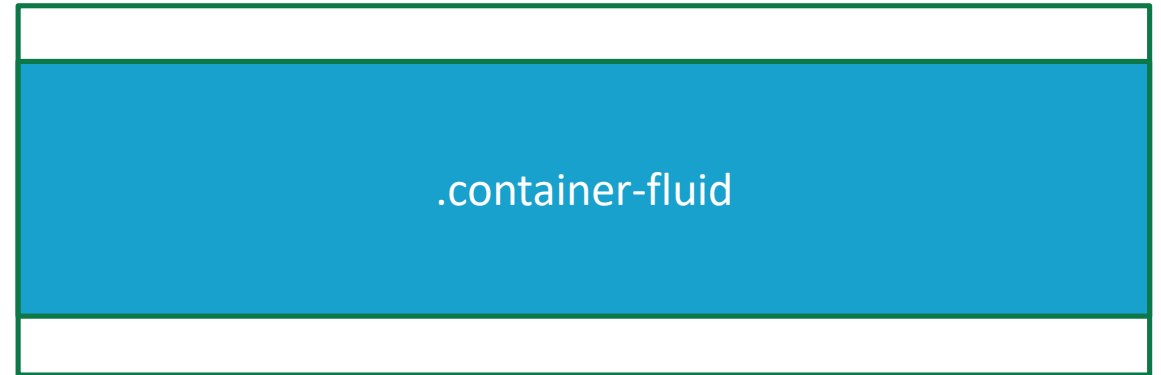
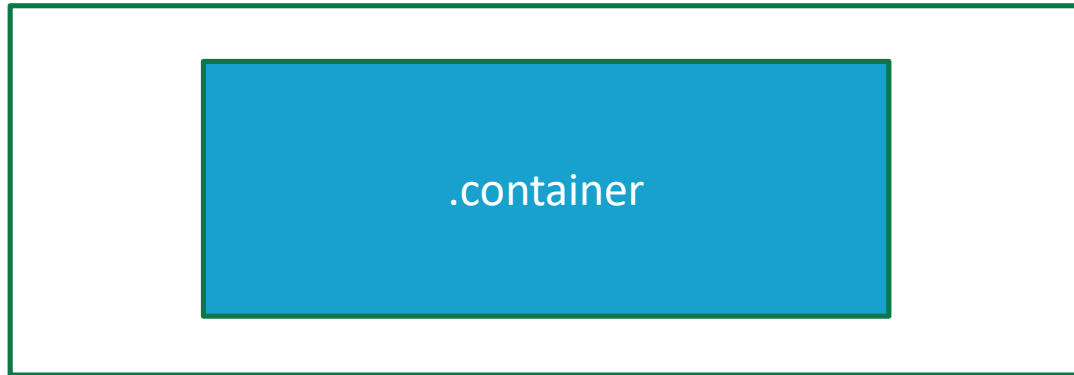
2. Bootstrap 4 is mobile-first

```
<meta name="viewport" content="width=device-  
width, initial-scale=1">
```


Creating web page using Bootstrap

3. Containers

- Bootstrap 4 also requires a containing element to wrap site contents.
- There are two container classes to choose from:
 - ▶ The `.container` class provides a responsive fixed width container
 - ▶ The `.container-fluid` class provides a full width container, spanning the entire width of the viewport





MODULE 2

Bootstrap elements and components

Bootstrap Grid System

- ▶ Grids in web design organize and structure content, makes the websites easy to scan and reduces the cognitive load on users.
- ▶ Bootstrap's grid system allows up to 12 columns across the page.
- ▶ Bootstrap's grid system is responsive, and the columns will re-arrange automatically depending on the screen size.

span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1
span 4				span 4				span 4			
span 4				span 8							
span 6						span 6					
span 12											

Grid classes

- ▶ The Bootstrap grid system has four classes:
 - xs (for phones - screens less than 768px wide)
 - sm (for tablets - screens equal to or greater than 768px wide)
 - md (for small laptops - screens equal to or greater than 992px wide)
 - lg (for laptops and desktops - screens equal to or greater than 1200px wide)

Basic Structure of a Bootstrap Grid

```
<div class="row">
  <div class="col-*.*)"></div>
  <div class="col-*.*)"></div>
</div>
<div class="row">
  <div class="col-*.*)"></div>
  <div class="col-*.*)"></div>
  <div class="col-*.*)"></div>
</div>
<div class="row">
  <div class="col"></div>
  <div class="col"></div>
  <div class="col"></div>
</div>
```



Bootstrap Text/Typography

- ▶ Bootstrap's global default font-size is 14px, with a line-height of 1.428.
- ▶ This is applied to the `<body>` element and all paragraphs (`<p>`).
- ▶ In addition, all `<p>` elements have a bottom margin that equals half their computed line-height (10px by default).

Bootstrap Text/Typography

- Various tags used are as follows

Tag	Description
<h1> -<h6>	HTML headings
<small>	Used to create a lighter, secondary text in any heading
<mark>	Highlights the specified text
<abbr>	Used to specify abbreviations
<blockquote>	Used to present content from another source
<dl>	Used to represent description lists
<code>	Inline snippets of code should be embedded in the code element
<kbd>	To accept keyboard input
<pre>	Text in a pre element is displayed in a fixed-width font, and it preserves both spaces and line breaks.



Text

- ▶ Bootstrap 4 has some contextual classes that can be used to provide "meaning through colors".
- ▶ The classes for text colors are:
 - .text-muted, .text-primary, .text-success, .text-info, .text-warning, .text-danger, .text-secondary, .text-white, .text-dark, .text-body (default body color/often black) and .text-light



Alerts

- ▶ Alerts are created with the `.alert` class, followed by one of the contextual classes
 - `.alert-success`, `.alert-info`, `.alert-warning`, `.alert-danger`, `.alert-primary`, `.alert-secondary`, `.alert-light`, `.alert-dark`:



Tables

- ▶ A basic Bootstrap table has a light padding and only horizontal dividers.
- ▶ The .table class adds basic styling to a table

```
<div class="container">  
  <table class="table">  
    <thead>  
      <tr>  
        <th>Firstname</th>  
        <th>Lastname</th>  
        <th>Email</th>  
      </tr>  
    </thead>
```

```
<tbody>  
  <tr>  
    <td>John</td>  
    <td>Doe</td>  
    <td>john@example.com</td>  
  </tr>  
</tbody>  
</table>  
</div>
```



Tables

- ▶ The `.table-striped` class adds zebra-stripes to a table
- ▶ The `.table-bordered` class adds borders on all sides of the table and cells
- ▶ The `.table-hover` class adds a hover effect (grey background color) on table rows
- ▶ The `.table-dark` class adds a black background to the table
- ▶ Combine `.table-dark` and `.table-striped` to create a dark, striped table
- ▶ The `.table-borderless` class removes borders from the table

Contextual Classes for tables

- Contextual classes can be used to color the whole table (<table>), the table rows (<tr>) or table cells (<td>)

Class	Description
.table-primary	Blue: Indicates an important action
.table-success	Green: Indicates a successful or positive action
.table-danger	Red: Indicates a dangerous or potentially negative action
.table-info	Light blue: Indicates a neutral informative change or action
.table-warning	Orange: Indicates a warning that might need attention
.table-active	Grey: Applies the hover color to the table row or table cell
.table-secondary	Grey: Indicates a slightly less important action
.table-light	Light grey table or table row background
.table-dark	Dark grey table or table row background



Table head colors

- ▶ The `.thead-dark` class adds a black background to table headers, and the `.thead-light` class adds a grey background to table headers



Striped rows

- ▶ The .table-striped class adds zebra-stripes to a table

```
<div class="container">
<table class="table table-
striped">
  <thead>
    <tr>
      <th>Firstname</th>
      <th>Lastname</th>
      <th>Email</th>
    </tr>
  </thead>
```

```
<tbody>
  <tr>
    <td>John</td>
    <td>Doe</td>

    <td>john@example.com</
td>
  </tr>
</tbody>
</table>
</div>
```

Bordered Table

- ▶ The **.table-bordered** class adds borders on all sides of the table and cells

```
<div class="container">
<table class="table table-
bordered">
  <thead>
    <tr>
      <th>Firstname</th>
      <th>Lastname</th>
      <th>Email</th>
    </tr>
  </thead>
```

```
<tbody>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>john@example.com</td>
  </tr>
</tbody>
</table>
</div>
```



Hover Rows

- ▶ The `.table-hover` class adds a hover effect (grey background color) on table rows

```
<div class="container">
<table class="table table-hover">
  <thead>
    <tr>
      <th>Firstname</th>
      <th>Lastname</th>
      <th>Email</th>
    </tr>
  </thead>
```

```
<tbody>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>john@example.com</td>
  </tr>
</tbody>
</table>
</div>
```


Condensed Table

- ▶ The `.table-condensed` class makes a table more compact by cutting cell padding in half

```
<div class="container">
<table class="table table-condensed">
  <thead>
    <tr>
      <th>Firstname</th>
      <th>Lastname</th>
      <th>Email</th>
    </tr>
  </thead>
```

```
<tbody>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>john@example.com</td>
  </tr>
</tbody>
</table>
</div>
```



Contextual Classes

- Contextual classes can be used to color table rows (<tr>) or table cells (<td>)

```
<div class="container">
<table class="table">
  <thead> <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Email</th>
  </tr> </thead>
  <tbody> <tr>
    <td>Default</td>
    <td>Defaultson</td>
    <td>def@somemail.com</td> </tr>
  <tr class="success">
    <td>Success</td>
    <td>Doe</td>
    <td>john@example.com</td>
  </tr>
```

```
<tr class="danger">
  <td>Danger</td>
  <td>Moe</td>
  <td>mary@example.com</td> </tr>
<tr class="info">
  <td>Info</td>
  <td>Dooley</td>
  <td>july@example.com</td> </tr>
<tr class="warning">
  <td>Warning</td>
  <td>Refs</td>
  <td>bo@example.com</td> </tr>
<tr class="active">
  <td>Active</td>
  <td>Activeson</td>
  <td>act@example.com</td> </tr>
</tbody> </table> </div>
```



Responsive Tables

- ▶ The `.table-responsive` class creates a responsive table.
- ▶ The table will then scroll horizontally on small devices (under 768px).
- ▶ When viewing on anything larger than 768px wide, there is no difference

Responsive Tables

```
<div class="table-responsive">
  <table class="table">
    <thead>
      <tr>
        <th>#</th>
        <th>Firstname</th>
        <th>Lastname</th>
        <th>Age</th>
        <th>City</th>
        <th>Country</th>
      </tr>
    </thead>
```

```
<tbody>
  <tr>
    <td>1</td>
    <td>Anna</td>
    <td>Pitt</td>
    <td>35</td>
    <td>New York</td>
    <td>USA</td>
  </tr>
</tbody>
</table>
</div>
</div>
```

Images

- ▶ The `.rounded` class adds rounded corners to an image
- ▶ The `.rounded-circle` class shapes the image to a circle
- ▶ The `.img-thumbnail` class shapes the image to a thumbnail (bordered)
- ▶ Float an image to the right with the `.float-right` class or to the left with `.float-left`
- ▶ Create responsive images by adding an `.img-fluid` class to the `` tag.
- ▶ Center an image by adding the utility classes `.mx-auto` (margin:auto) and `.d-block` (display:block) to the image



Bootstrap Images

► Rounded Corners

- The .img-rounded class adds rounded corners to an image (IE8 does not support rounded corners)

```
<div class="container">
  <h2>Rounded Corners</h2>
  <p>The .img-rounded class adds rounded corners to an image (not available in IE8):</p>
  
</div>
```

Bootstrap Images

► Circle

- The .img-circle class shapes the image to a circle (IE8 does not support)

```
<div class="container">
  <h2>Rounded Corners</h2>
  <p>The .img-rounded class adds rounded corners to an image (not available in IE8):</p>
  
</div>
```

Bootstrap Images

► Thumbnail

- The .img-thumbnail class shapes the image to a thumbnail

```
<div class="container">  
  <h2>Rounded Corners</h2>  
  <p>The .img-rounded class adds rounded corners to an image (not available in IE8):</p>  
    
</div>
```



Bootstrap Images

► Responsive Images

- Images come in all sizes. So do screens. Responsive images automatically adjust to fit the size of the screen.
- Create responsive images by adding an `.img-responsive` class to the `` tag. The image will then scale nicely to the parent element.
- The `.img-responsive` class applies `display: block;` and `max-width: 100%;` and `height: auto;` to the image



Bootstrap Images

```
<div class="container">
  <h2>Image</h2>
  <p>The .img-responsive class makes the image scale nicely to the parent element (resize
the browser window to see the effect):</p>
  
</div>
```

Bootstrap Jumbotron and Page Header

- ▶ A jumbotron indicates a big box for calling extra attention to some special content or information.
- ▶ A jumbotron is displayed as a grey box with rounded corners. It also enlarges the font sizes of the text inside it.
- ▶ Inside a jumbotron you can put nearly any valid HTML, including other Bootstrap elements/classes.
- ▶ Use a `<div>` element with class `.jumbotron` to create a jumbotron

Bootstrap Jumbotron

```
<div class="container">
  <div class="jumbotron">
    <h1>Bootstrap </h1>
    <p>Bootstrap is the most popular HTML, CSS, and JS framework for developing
    responsive, mobile-first projects on the web.</p>
  </div>
  <p>This is some text.</p>
  <p>This is another text.</p>
</div>
```



Page Header

- ▶ A page header is like a section divider.
- ▶ The .page-header class adds a horizontal line under the heading (+ adds some extra space around the element)

```
<div class="container">  
  <div class="page-header">  
    <h1>Example Page Header</h1>  
  </div>  
  <p>This is some text.</p>  
  <p>This is another text.</p>  
</div>
```

Wells

- ▶ The .well class adds a rounded border around an element with a gray background color and some padding

```
<div class="container">  
  <h2>Well</h2>  
  <div class="well">Basic Well</div>  
</div>
```



Well size

- By default, wells are medium in size.

```
<div class="container">  
  <h2>Well Size</h2>  
  <div class="well well-sm">Small Well</div>  
  <div class="well">Normal Well</div>  
  <div class="well well-lg">Large Well</div>  
</div>
```



Button Styles

- ▶ Bootstrap provides different styles of buttons
- ▶ The classes are as follows
 - .btn
 - .btn-default
 - .btn-primary
 - .btn-success
 - .btn-info
 - .btn-warning
 - .btn-danger
 - .btn-link



Button Styles

```
<button type="button" class="btn">Basic</button>  
<button type="button" class="btn btn-default">Default</button>  
<button type="button" class="btn btn-primary">Primary</button>  
<button type="button" class="btn btn-success">Success</button>  
<button type="button" class="btn btn-info">Info</button>  
<button type="button" class="btn btn-warning">Warning</button>  
<button type="button" class="btn btn-danger">Danger</button>  
<button type="button" class="btn btn-link">Link</button>
```



Button Styles

- ▶ The button classes can be used on an <a>, <button>, or <input> element

```
<a href="#" class="btn btn-info" role="button">Link Button</a>  
<button type="button" class="btn btn-info">Button</button>  
<input type="button" class="btn btn-info" value="Input Button">  
<input type="submit" class="btn btn-info" value="Submit Button">
```

- ▶ Bootstrap provides four button sizes as large, medium , small, xsmall

```
<button type="button" class="btn btn-primary btn-lg">Large</button>  
<button type="button" class="btn btn-primary btn-md">Medium</button>  
<button type="button" class="btn btn-primary btn-sm">Small</button>  
<button type="button" class="btn btn-primary btn-xs">XSmall</button>
```



Button outlines

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



Active/Disabled Buttons

- ▶ A button can be set to an active (appear pressed) or a disabled (unclickable) state.
- ▶ The class `.active` makes a button appear pressed, and the class `.disabled` makes a button unclickable

```
<button type="button" class="btn btn-primary active">Active Primary</button>  
<button type="button" class="btn btn-primary disabled">Disabled  
Primary</button>
```



Justified Button Groups

- ▶ To span the entire width of the screen, use the `.btn-group-justified` class

```
<div class="btn-group btn-group-justified">  
  <div class="btn-group">  
    <button type="button" class="btn btn-primary">Apple</button>  
  </div>  
  <div class="btn-group">  
    <button type="button" class="btn btn-primary">Samsung</button>  
  </div>  
  <div class="btn-group">  
    <button type="button" class="btn btn-primary">Sony</button>  
  </div>  
</div>
```



Labels

- ▶ Labels are used to provide additional information about something
- ▶ Use the .label class, followed by one of the six contextual classes .label-default, .label-primary, .label-success, .label-info, .label-warning or .label-danger, within a element to create a label

```
<span class="label label-default">Default Label</span>  
<span class="label label-primary">Primary Label</span>  
<span class="label label-success">Success Label</span>  
<span class="label label-info">Info Label</span>  
<span class="label label-warning">Warning Label</span>  
<span class="label label-danger">Danger Label</span>
```



Bootstrap Progress Bars

- ▶ A progress bar can be used to show a user how far along he/she is in a process.
- ▶ To create a default progress bar(without label on it), add a .progress class to a <div> element

```
<div class="progress">  
  <div class="progress-bar" role="progressbar" aria-valuenow="70"  
    aria-valuemin="0" aria-valuemax="100" style="width:70%">  
    <span class="sr-only">70% Complete</span>  
  </div>  
</div>
```

Progress Bar With Label

- ▶ Remove the .sr-only class from the progress bar to show a visible percentage

```
<div class="progress">  
  <div class="progress-bar" role="progressbar" aria-valuenow="70"  
    aria-valuemin="0" aria-valuemax="100" style="width:70%">  
    <span class="sr-only">70% Complete</span>  
  </div>  
</div>
```


Coloured Progress Bars

- ▶ Contextual classes are used to provide "meaning through colors".
- ▶ The contextual classes that can be used with progress bars are:
 - .progress-bar-success
 - .progress-bar-info
 - .progress-bar-warning
 - .progress-bar-danger



Progress bar

- ▶ Striped Progress Bars
 - Add class `.progress-bar-striped` to add stripes to the progress bars
- ▶ Animated Progress Bar
 - Add class `.active` to animate the progress bar
- ▶ Stacked Progress Bars
 - Create a stacked progress bar by placing multiple bars into the same class

Pagination

- ▶ If a web site has lots of pages, then some sort of pagination can be added to each page.
- ▶ To create a basic pagination, add the .pagination class to an element
- ▶ States of pagination
 - Active State : The active state shows what is the current page. Add class .active to let the user know on which page they are.
 - Disabled State : A disabled link cannot be clicked. Add class .disabled if a link for some reason is disabled.

Pagination

```
<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>
```



Active state

- ▶ The `.active` class is used to "highlight" the current page

```
<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 active"><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>
```

Disabled state

- ▶ The `.disabled` class is used for links that appear unclickable

```
<ul class="pagination">
  <li class="page-item disabled"><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>
```

Pagination sizing

- ▶ Pagination blocks can also be sized to a larger size or a smaller size
- ▶ Add class `.pagination-lg` for larger blocks or `.pagination-sm` for smaller blocks

Breadcrumbs

- ▶ Another form for pagination, is breadcrumbs
- ▶ The .breadcrumb class indicates the current page's location within a navigational hierarchy

```
<ul class="breadcrumb">  
  <li class="breadcrumb-item"><a href="#">Photos</a></li>  
  <li class="breadcrumb-item"><a href="#">Summer 2017</a></li>  
  <li class="breadcrumb-item"><a href="#">Italy</a></li>  
  <li class="breadcrumb-item active">Rome</li>  
</ul>
```



List groups

- ▶ To create a basic list group, use an `` element with class `.list-group`, and `` elements with class `.list-group-item`

```
<ul class="list-group">  
  <li class="list-group-item">First item</li>  
  <li class="list-group-item">Second item</li>  
  <li class="list-group-item">Third item</li>  
</ul>
```

List Group With Linked Items

- ▶ The items in a list group can also be hyperlinks. This will add a grey background color on hover
- ▶ To create a list group with linked items, use `<div>` instead of `` and `<a>` instead of ``

```
<div class="list-group">  
  <a href="#" class="list-group-item">First item</a>  
  <a href="#" class="list-group-item">Second item</a>  
  <a href="#" class="list-group-item">Third item</a>  
</div>
```



cards

- ▶ A card in bootstrap is a bordered box with some padding around its content.
- ▶ cards are created with the .card class, and content inside the card has a .card-body class

```
<div class="card card-default">  
  <div class="card-body">A Basic card</div>  
</div>
```

Card

- ▶ Card Heading
 - The `.card-heading` class adds a heading to the card
- ▶ card Footer
 - The `.card-footer` class adds a footer to the card
- ▶ cards with Contextual Classes
 - To color the card, use contextual classes (`.card-default`, `.card-primary`, `.card-success`, `.card-info`, `.card-warning`, or `.card-danger`)



Dropdowns

- ▶ A dropdown menu is a toggleable menu that allows the user to choose one value from a predefined list.

Dropdowns

```
<div class="dropdown">  
  <button type="button" class="btn btn-primary dropdown-toggle" data-  
toggle="dropdown">  
    Dropdown button  
  </button>  
  <div class="dropdown-menu">  
    <a class="dropdown-item" href="#">Link 1</a>  
    <a class="dropdown-item" href="#">Link 2</a>  
    <a class="dropdown-item" href="#">Link 3</a>  
  </div>  
</div>
```

Dropdowns

► Dropdown Divider

- The .divider class is used to separate links inside the dropdown menu with a thin horizontal border

```
<button type="button" class="btn btn-primary dropdown-toggle" data-  
toggle="dropdown">
```

```
  Dropdown button
```

```
</button>
```

```
<div class="dropdown-menu">
```

```
  <a class="dropdown-item" href="#">Link 1</a>
```

```
  <a class="dropdown-item" href="#">Link 2</a>
```

```
  <a class="dropdown-item" href="#">Link 3</a>
```

```
  <div class="dropdown-divider"></div>
```

```
  <a class="dropdown-item" href="#">Another link</a>
```

```
</div>
```

```
</div>
```



Dropdowns

► Dropdown Header

- The .dropdown-header class is used to add headers inside the dropdown menu

```
<button type="button" class="btn btn-primary dropdown-toggle" data-  
toggle="dropdown"> Dropdown button </button>  
<div class="dropdown-menu">  
  <h5 class="dropdown-header">Dropdown header</h5>  
  <a class="dropdown-item" href="#">Link 1</a>  
  <a class="dropdown-item" href="#">Link 2</a>  
  <a class="dropdown-item" href="#">Link 3</a>  
  <h5 class="dropdown-header">Dropdown header</h5>  
  <a class="dropdown-item" href="#">Another link</a>  
</div>  
</div>
```


Dropdowns

► Disable and Active items

- Highlight a specific dropdown item with the .active class.
- To disable an item in the dropdown menu, use the .disabled class

```
<button type="button" class="btn btn-primary dropdown-toggle" data-  
toggle="dropdown">  
  Dropdown button  
</button>  
<div class="dropdown-menu">  
  <a class="dropdown-item" href="#">Normal</a>  
  <a class="dropdown-item active" href="#">Active</a>  
  <a class="dropdown-item disabled" href="#">Disabled</a>  
</div>  
</div>
```



Dropdowns

▶ Dropdown Position

- To right-align the dropdown, add the `.dropdown-menu-right` class to the element with `.dropdown-menu`

▶ Dropup

- If you want the dropdown menu to expand upwards instead of downwards, change the `<div>` element with `class="dropdown"` to `"dropup"`

▶ Dropdown Accessibility

- To help improve accessibility for people using screen readers, you should include the following role and aria-* attributes, when creating a dropdown menu

Dropdowns

- ▶ Drop right, Drop left
 - You can also create a "dropright" or "dropleft" menu, by adding the .dropright or .dropleft class to the dropdown element.

Forms

- ▶ Bootstrap provides two types of form layouts:
 - Stacked (full-width) form
 - ▶ normal form
 - ▶ Add a wrapper element with `.form-group`, around each form control, to ensure proper margins
 - Inline form
 - ▶ all of the elements are inline and left-aligned
 - ▶ Add class `.form-inline` to the `<form>` element



```
<form action="">
  <div class="form-group">
    <label for="email">Email address:</label>
    <input type="email" class="form-control" id="email">
  </div>
  <div class="form-group">
    <label for="pwd">Password:</label>
    <input type="password" class="form-control" id="pwd">
  </div>
  <div class="form-group form-check">
    <label class="form-check-label">
      <input class="form-check-input" type="checkbox"> Remember me
    </label>
  </div>
  <button type="submit" class="btn btn-primary">Submit</button>
</form>
```

```
<form class="form-inline" action="">
  <label for="email">Email:</label>
  <input type="email" class="form-control" id="email" placeholder="Enter
email" name="email">
  <label for="pwd">Password:</label>
  <input type="password" class="form-control" id="pwd"
placeholder="Enter password" name="pswd">
  <div class="form-check">
    <label class="form-check-label">
      <input class="form-check-input" type="checkbox" name="remember">
Remember me
    </label>
  </div>
  <button type="submit" class="btn btn-primary">Submit</button>
</form>
```



Carousel

- The Carousel is a slideshow for cycling through elements.

Class	Description
.carousel	Creates a carousel
.carousel-indicators	Adds indicators for the carousel. These are the little dots at the bottom of each slide (which indicates how many slides there are in the carousel, and which slide the user are currently viewing)
.carousel-inner	Adds slides to the carousel
.carousel-item	Specifies the content of each slide
.carousel-control-prev	Adds a left (previous) button to the carousel, which allows the user to go back between the slides



Carousel

Class	Description
<code>.carousel-control-next</code>	Adds a right (next) button to the carousel, which allows the user to go forward between the slides
<code>.carousel-control-prev-icon</code>	Used together with <code>.carousel-control-prev</code> to create a "previous" button
<code>.carousel-control-next-icon</code>	Used together with <code>.carousel-control-next</code> to create a "next" button
<code>.slide</code>	Adds a CSS transition and animation effect when sliding from one item to the next. Remove this class if you do not want this effect



Modal

- ▶ The Modal component is a dialog box/popup window that is displayed on top of the current page





THANK YOU!