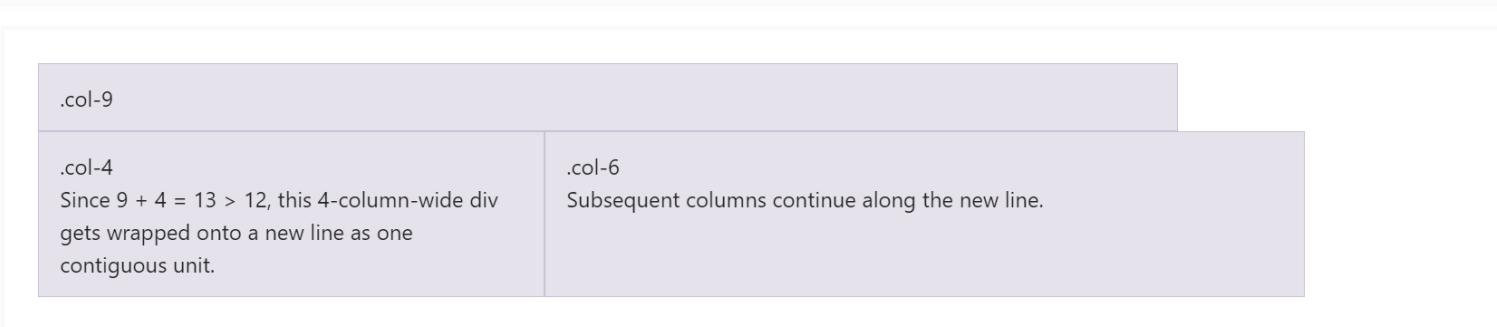


Bootstrap 4 (Part 2)

ITS290F

Supplementary to the grid system: Column wrapping

- Bootstrap's grid system allows up to 12 columns across the page.
- If more than 12 columns are placed within a single row, each group of extra columns will, as one unit, wrap onto a new line.



```
<div class="container">
  <div class="row">
    <div class="col-9">.col-9</div>
    <div class="col-4">.col-4<br>Since  $9 + 4 = 13 > 12$ , this 4-column-wide div gets wrapped onto a new line as one contiguous unit.</div>
    <div class="col-6">.col-6<br>Subsequent columns continue along the new line.</div>
  </div>
</div>
```

Bootstrap 4 UI Components

Bootstrap 4 Text/Typography

<h1> - <h6>

Bootstrap 4 styles HTML headings (`<h1>` to `<h6>`) with a bolder font-weight and an increased font-size:

Example

h1 Bootstrap heading (2.5rem = 40px)

h2 Bootstrap heading (2rem = 32px)

h3 Bootstrap heading (1.75rem = 28px)

h4 Bootstrap heading (1.5rem = 24px)

h5 Bootstrap heading (1.25rem = 20px)

h6 Bootstrap heading (1rem = 16px)

```
<div class="container">
  <h1>h1 Bootstrap heading (2.5rem = 40px)</h1>
  <h2>h2 Bootstrap heading (2rem = 32px)</h2>
  <h3>h3 Bootstrap heading (1.75rem = 28px)</h3>
  <h4>h4 Bootstrap heading (1.5rem = 24px)</h4>
  <h5>h5 Bootstrap heading (1.25rem = 20px)</h5>
  <h6>h6 Bootstrap heading (1rem = 16px)</h6>
</div>
```

Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_txt_hn&stacked=h

Bootstrap 4 Text/Typography

Display Headings

Display headings are used to stand out more than normal headings (larger font-size and lighter font-weight), and there are four classes to choose from: `.display-1`, `.display-2`, `.display-3`, `.display-4`

Example

Display 1
Display 2
Display 3
Display 4

```
<div class="container">
  <h1 class="display-1">Display 1</h1>
  <h1 class="display-2">Display 2</h1>
  <h1 class="display-3">Display 3</h1>
  <h1 class="display-4">Display 4</h1>
</div>
```

Bootstrap 4 Text/Typography

<small> *Lighter, Secondary Text*

In Bootstrap 4 the HTML `<small>` element is used to create a lighter, secondary text in any heading:

Example

h1 heading secondary text
h2 heading secondary text
h3 heading secondary text
h4 heading secondary text
h5 heading secondary text
h6 heading secondary text

```
<div class="container">
  <h1>h1 heading <small>secondary text</small></h1>
  <h2>h2 heading <small>secondary text</small></h2>
  <h3>h3 heading <small>secondary text</small></h3>
  <h4>h4 heading <small>secondary text</small></h4>
  <h5>h5 heading <small>secondary text</small></h5>
  <h6>h6 heading <small>secondary text</small></h6>
</div>
```

Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_txt_small&stacked=h

Bootstrap 4 Text/Typography

<mark> *Highlight Text*

Bootstrap 4 will style the HTML <mark> element with a yellow background color and some padding:

Example

Use the mark element to highlight text.

```
<div class="container">
  <p>Use the mark element to <mark>highlight</mark> text.</p>
</div>
```

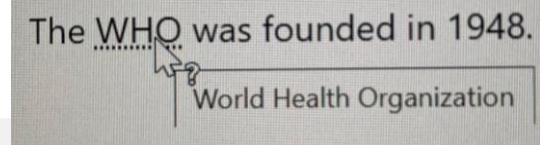
Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_txt_mark&stacked=h

<abbr> *Abbreviations*

Bootstrap 4 will style the HTML <abbr> element with a dotted border bottom:

Example

The WHO was founded in 1948.



```
<div class="container">
  <p>The <abbr title="World Health Organization">WHO</abbr> was founded in 1948.</p>
</div>
```

Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_txt_abbr&stacked=h

Bootstrap 4 Text/Typography

<blockquote> *Blockquotes*

Add the `.blockquote` class to a `<blockquote>` when quoting blocks of content from another source:

Example

For 50 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by 1.2 million members in the United States and close to 5 million globally.

— From WWF's website

```
<div class="container">
  <blockquote class="blockquote">
    <p>For 50 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by 1.2 million members in the United States and close to 5 million globally.</p>
    <footer class="blockquote-footer">From WWF's website</footer>
  </blockquote>
</div>
```

Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_txt_blockquote&stacked=h

Bootstrap 4 Text/Typography

<dl> *Description Lists*

Bootstrap 4 will style the HTML `<dl>` element in the following way:

Example

Coffee

- black hot drink

Milk

- white cold drink

```
<div class="container">
<dl>
  <dt>Coffee</dt>
  <dd>- black hot drink</dd>
  <dt>Milk</dt>
  <dd>- white cold drink</dd>
</dl>
</div>
```

Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_txt_dl&stacked=h

<code> *Code Snippets*

Bootstrap 4 will style the HTML `<code>` element in the following way:

Example

The following HTML elements: `span`, `section`, and `div` defines a section in a document.

```
<div class="container">
  <p>The following HTML elements: <code>span</code>, <code>section</code>,
     and <code>div</code> defines a section in a document.</p>
</div>
```

Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_txt_code&stacked=h

Bootstrap 4 Text/Typography

<kbd> *Keyboard Inputs*

Bootstrap 4 will style the HTML `<kbd>` element in the following way:

Example

Use `ctrl + p` to open the Print dialog box.

```
<div class="container">
  <p>Use <code>ctrl + p</code> to open the Print dialog box.</p>
</div>
```

Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_txt_kbd&stacked=h

<pre> *Multiple Code Lines*

Bootstrap 4 will style the HTML `<pre>` element in the following way:

Example

Text in a pre element
is displayed in a fixed-width
font, and it preserves
both spaces and
line breaks.

```
<pre>
Text in a pre element
is displayed in a fixed-width
font, and it preserves
both spaces and
line breaks.
</pre>
```

Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_txt_pre&stacked=h

Bootstrap 4 Colors

Text Colors

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`:

Contextual Colors

Use the contextual classes to provide "meaning through colors":

This text is muted.

This text is important.

This text indicates success.

This text represents some information.

This text represents a warning.

This text represents danger.

Secondary text.

This text is dark grey.

Default body color (often black).

This text is light grey (on white background).

This text is white (on white background).

```
<div class="container">
  <h2>Contextual Colors</h2>
  <p>Use the contextual classes to provide "meaning through colors":</p>
  <p class="text-muted">This text is muted.</p>
  <p class="text-primary">This text is important.</p>
  <p class="text-success">This text indicates success.</p>
  <p class="text-info">This text represents some information.</p>
  <p class="text-warning">This text represents a warning.</p>
  <p class="text-danger">This text represents danger.</p>
  <p class="text-secondary">Secondary text.</p>
  <p class="text-dark">This text is dark grey.</p>
  <p class="text-body">Default body color (often black).</p>
  <p class="text-light">This text is light grey (on white background).</p>
  <p class="text-white">This text is white (on white background).</p>
</div>
```

Bootstrap 4 Colors

Background Colors

The classes for background colors are: `.bg-primary`, `.bg-success`, `.bg-info`, `.bg-warning`, `.bg-danger`, `.bg-secondary`, `.bg-dark` and `.bg-light`.

Note that background colors do not set the text color, so in some cases you'll want to use them together with a `.text-*` class.

Contextual Backgrounds

Use the contextual background classes to provide "meaning through colors".

Note that you can also add a `.text-*` class if you want a different text color:

This text is important.

This text indicates success.

This text represents some information.

This text represents a warning.

This text represents danger.

Secondary background color.

Dark grey background color.

Light grey background color.

```
<div class="container">
  <h2>Contextual Backgrounds</h2>
  <p>Use the contextual background classes to provide "meaning through colors".</p>
  <p>Note that you can also add a .text-* class if you want a different text color:</p>
  <p class="bg-primary text-white">This text is important.</p>
  <p class="bg-success text-white">This text indicates success.</p>
  <p class="bg-info text-white">This text represents some information.</p>
  <p class="bg-warning text-white">This text represents a warning.</p>
  <p class="bg-danger text-white">This text represents danger.</p>
  <p class="bg-secondary text-white">Secondary background color.</p>
  <p class="bg-dark text-white">Dark grey background color.</p>
  <p class="bg-light text-dark">Light grey background color.</p>
</div>
```

Bootstrap 4 Basic Table

Bootstrap 4 Basic Table

A basic Bootstrap 4 table has a light padding and horizontal dividers.

The `.table` class adds basic styling to a table:

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

```
<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>
    <tr>
      <td>Mary</td>
      <td>Moe</td>
      <td>mary@example.com</td>
    </tr>
    <tr>
      <td>July</td>
      <td>Dooley</td>
      <td>july@example.com</td>
    </tr>
  </tbody>
</table>
</div>
```

Ref: <https://getbootstrap.com/docs/4.0/content/tables/>

Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_table_basic&stacked=h

Bootstrap 4 Basic Table

Striped Rows

The `.table-striped` class adds zebra-stripes to a table:

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

Bordered Table

The `.table-bordered` class adds borders on all sides of the table and cells:

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

Hover Rows

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

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

More Tables

- Black/Dark Table
- Dark Striped Table
- Hoverable Dark Table
- Borderless Table

Bootstrap 4 Basic Table

Contextual Classes

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

Example

Firstname	Lastname	Email
Default	Defaultson	def@somesemail.com
Primary	Joe	joe@example.com
Success	Doe	john@example.com
Danger	Moe	mary@example.com
Info	Dooley	july@example.com
Warning	Refs	bo@example.com
Active	Activeson	act@example.com
Secondary	Secondson	sec@example.com
Light	Angie	angie@example.com
Dark	Bo	bo@example.com

```
<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@somesemail.com</td>
    </tr>
    <tr class="table-primary">
      <td>Primary</td>
      <td>Joe</td>
      <td>joe@example.com</td>
    </tr>
    <tr class="table-success">
      <td>Success</td>
      <td>Doe</td>
      <td>john@example.com</td>
    </tr>
    <tr class="table-danger">
      <td>Danger</td>
      <td>Moe</td>
      <td>mary@example.com</td>
    </tr>
    <tr class="table-info">
      <td>Info</td>
      <td>Dooley</td>
      <td>july@example.com</td>
    </tr>
    <tr class="table-warning">
      <td>Warning</td>
      <td>Refs</td>
      <td>bo@example.com</td>
    </tr>
    <tr class="table-active">
      <td>Active</td>
      <td>Activeson</td>
      <td>act@example.com</td>
    </tr>
    <tr class="table-secondary">
      <td>Secondary</td>
      <td>Secondson</td>
      <td>sec@example.com</td>
    </tr>
    <tr class="table-light">
      <td>Light</td>
      <td>Angie</td>
      <td>angie@example.com</td>
    </tr>
    <tr class="table-dark text-dark">
      <td>Dark</td>
      <td>Bo</td>
      <td>bo@example.com</td>
    </tr>
  </tbody>
</table>
```

Bootstrap 4 Basic Table

Contextual Classes

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

Example

Firstname	Lastname	Email
Default	Defaultson	
Primary	Joe	<code>.table-primary</code> Blue: Indicates an important action
Success	Doe	<code>.table-success</code> Green: Indicates a successful or positive action
Danger	Moe	<code>.table-danger</code> Red: Indicates a dangerous or potentially negative action
Info	Dooley	<code>.table-info</code> Light blue: Indicates a neutral informative change or action
Warning	Refs	<code>.table-warning</code> Orange: Indicates a warning that might need attention
Active	Activeson	<code>.table-active</code> Grey: Applies the hover color to the table row or table cell
Secondary	Secondson	<code>.table-secondary</code> Grey: Indicates a slightly less important action
Light	Angie	<code>.table-light</code> Light grey table or table row background
Dark	Bo	<code>.table-dark</code> Dark grey table or table row background

Bootstrap 4 Image Shapes

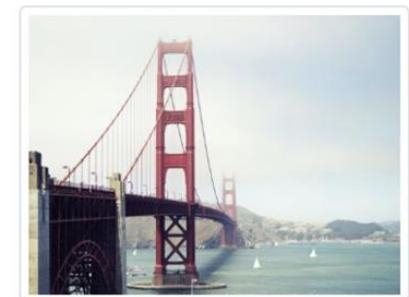
Rounded Corners:



Circle:



Thumbnail:



```
  
  

```

Bootstrap 4 Images

Aligning Images

Float an image to the right with the `.float-right` class or to the left with `.float-left`:

Example

```


```

Aligning images

Use the float classes to float the image to the left or to the right:



Aligning images

Use the float classes to float the image to the left or to the right:



Bootstrap 4 Images

Centered Image

Center an image by adding the utility classes `.mx-auto` (margin:auto) and `.d-block` (display:block) to the image:



Example

```

```

Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_img_centered&stacked=h

Bootstrap 4 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-fluid` class to the `` tag. The image will then scale nicely to the parent element.

The `.img-fluid` class applies `max-width: 100%;` and `height: auto;` to the image:

Example

```

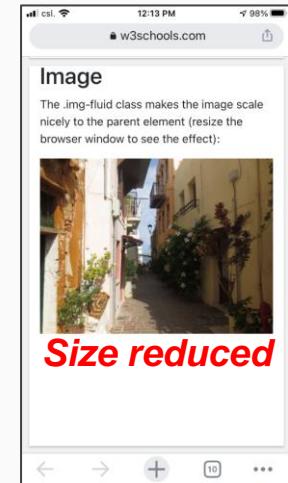
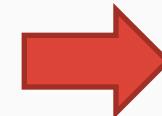
```

Image

The `.img-fluid` class makes the image scale nicely to the parent element (resize the browser window to see the effect):



100% width



Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_img_responsive&stacked=h

Bootstrap 4 Jumbotron

Bootstrap 4 Jumbotron

Ref: https://www.w3schools.com/bootstrap4/bootstrap_jumbotron.asp

A jumbotron indicates a big grey box for calling extra attention to some special content or information.

Tip: Inside a jumbotron you can put nearly any valid HTML, including other Bootstrap elements/classes.

Bootstrap Tutorial

Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile-first projects on the web.

This is some text.

This is another text.

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

Full-width Jumbotron

If you want a full-width jumbotron without rounded borders, add the `.jumbotron-fluid` class and a `.container` or `.container-fluid` inside of it:

Bootstrap Tutorial

Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile-first projects on the web.

This is some text.

This is another text.

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

Bootstrap 4 Alerts

Bootstrap 4 provides an easy way to create predefined alert messages:

Success! This alert box indicates a successful or positive action. ×

Info! This alert box indicates a neutral informative change or action. ×

Warning! This alert box indicates a warning that might need attention. ×

Danger! This alert box indicates a dangerous or potentially negative action. ×

Primary! This alert box indicates an important action. ×

Secondary! This alert box indicates a less important action. ×

Dark! Dark grey alert box. ×

Light! Light grey alert box. ×

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` or `.alert-dark`:

Bootstrap 4 Alerts

Alert Types

Alert Links

Add the `alert-link` class to any links inside the alert box to create "matching colored links":

Success! You should [read this message](#).

```
<div class="alert alert-success">
  <strong>Success!</strong> You should <a href="#" class="alert-link">read this message</a>.
</div>
```

Closing Alerts

Click on the "x" symbol to the right to close me.



To close the alert message, add a `.alert-dismissible` class to the alert container. Then add `class="close"` and `data-dismiss="alert"` to a link or a button element (when you click on this the alert box will disappear).

```
<div class="alert alert-success alert-dismissible">
  <button type="button" class="close" data-dismiss="alert">&times;</button>
  <strong>Success!</strong> Indicates a successful or positive action.
</div>
```

Animated Alerts

Click on the "x" symbol to the right to close me. I will "fade" out.



The `.fade` and `.show` classes adds a fading effect when closing the alert message:

```
<div class="alert alert-danger alert-dismissible fade show">
  <button type="button" class="close" data-dismiss="alert">&times;</button>
  Click on the "x" symbol to the right to close me. I will "fade" out.
</div>
```

Button Styles

Bootstrap 4 provides different styles of buttons:

Basic Primary Secondary Success Info Warning Danger Dark Light Link

Example

```
<button type="button" class="btn">Basic</button>
<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-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-dark">Dark</button>
<button type="button" class="btn btn-light">Light</button>
<button type="button" class="btn btn-link">Link</button>
```

Button Outline

Bootstrap 4 provides eight outline/bordered buttons:

Primary

Secondary

Success

Info

Warning

Danger

Dark

Light

Example

```
<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>
```

Bootstrap 4 Buttons

Button Sizes

Use the `.btn-lg` class for large buttons or `.btn-sm` class for small buttons:



Example

```
<button type="button" class="btn btn-primary btn-lg">Large</button>
<button type="button" class="btn btn-primary">Default</button>
<button type="button" class="btn btn-primary btn-sm">Small</button>
```

Block Level Buttons

Add class `.btn-block` to create a block level button that spans the entire width of the parent element.

A horizontal button with a blue background and white text. It is very wide, spanning most of the available space above it. The text "Full-Width Button" is centered within the button's area.

Example

```
<button type="button" class="btn btn-primary btn-block">Full-Width Button</button>
```

Active/Disabled Buttons

A button can be set to an active (appear pressed) or a disabled (unclickable) state:

Active Primary

Disabled Primary

The class `.active` makes a button appear pressed, and the `disabled` attribute makes a button unclickable. Note that `<a>` elements do not support the disabled attribute and must therefore use the `.disabled` class to make it visually appear disabled.

Example

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

Bootstrap 4 Buttons

Spinner Buttons

You can also add spinners to a button, with or without text:



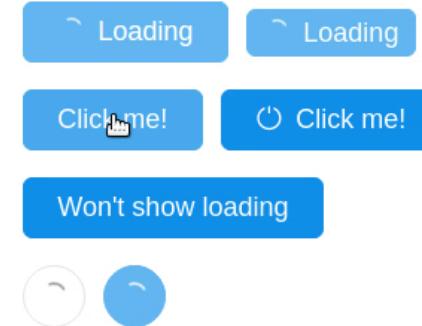
Example

```
<button class="btn btn-primary">
  <span class="spinner-border spinner-border-sm"></span>
</button>

<button class="btn btn-primary">
  <span class="spinner-border spinner-border-sm"></span>
  Loading..
</button>

<button class="btn btn-primary" disabled>
  <span class="spinner-border spinner-border-sm"></span>
  Loading..
</button>

<button class="btn btn-primary" disabled>
  <span class="spinner-grow spinner-grow-sm"></span>
  Loading..
</button>
```



Demo: https://www.w3schools.com/bootstrap4/tryit.asp?filename=trybs_spinners_buttons&stacked=h

Bootstrap 4 Button Groups

Button Groups

Bootstrap 4 allows you to group a series of buttons together (on a single line) in a button group:

```
Apple Samsung Sony
```

Use a `<div>` element with class `.btn-group` to create a button group:

Example

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

Bootstrap 4 Button Groups

Tip: Instead of applying button sizes to every button in a group, use class `.btn-group-lg` for a large button group or the `.btn-group-sm` for a small button group:

Large Buttons:

Apple Samsung Sony

Default Buttons:

Apple Samsung Sony

Small Buttons:

Apple Samsung Sony

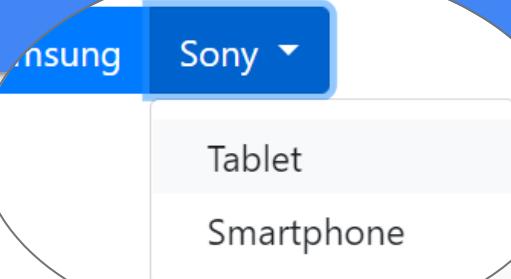
Example

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

Bootstrap 4 Button Groups

Nesting Button Groups & Dropdown Menus

Apple Samsung Sony ▾



Nest button groups to create dropdown menus (you will learn more about dropdowns in a later chapter):

Example

```
<div class="btn-group">
  <button type="button" class="btn btn-primary">Apple</button>
  <button type="button" class="btn btn-primary">Samsung</button>
  <div class="btn-group">
    <button type="button" class="btn btn-primary dropdown-toggle" data-toggle="dropdown">
      Sony
    </button>
    <div class="dropdown-menu">
      <a class="dropdown-item" href="#">Tablet</a>
      <a class="dropdown-item" href="#">Smartphone</a>
    </div>
  </div>
</div>
```

Bootstrap 4 Badges

Example heading New

Badges are used to add additional information to any content. Use the `.badge` class together with a contextual class (like `.badge-secondary`) within `` elements to create rectangular badges. Note that badges scale to match the size of the parent element (if any):

Example

```
<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>
```

Bootstrap 4 Badges

Contextual Badges

Primary Secondary Success Danger Warning Info Light Dark

Use any of the contextual classes (`.badge-*`) to change the color of a badge:

Example

```
<span class="badge badge-primary">Primary</span>
<span class="badge badge-secondary">Secondary</span>
<span class="badge badge-success">Success</span>
<span class="badge badge-danger">Danger</span>
<span class="badge badge-warning">Warning</span>
<span class="badge badge-info">Info</span>
<span class="badge badge-light">Light</span>
<span class="badge badge-dark">Dark</span>
```

Badge inside an Element

An example of using a badge inside a button:

Messages 4

Pill Badges

Primary Secondary Success Danger Warning Info Light Dark

Use the `.badge-pill` class to make the badges more round:

Example

```
<span class="badge badge-pill badge-primary">Primary</span>
<span class="badge badge-pill badge-secondary">Secondary</span>
<span class="badge badge-pill badge-success">Success</span>
<span class="badge badge-pill badge-danger">Danger</span>
<span class="badge badge-pill badge-warning">Warning</span>
<span class="badge badge-pill badge-info">Info</span>
<span class="badge badge-pill badge-light">Light</span>
<span class="badge badge-pill badge-dark">Dark</span>
```

Example

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

Basic Progress Bar

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, add a `.progress` class to a container element and add the `.progress-bar` class to its child element. Use the CSS `width` property to set the width of the progress bar:

Example

```
<div class="progress">
  <div class="progress-bar" style="width:70%"></div>
</div>
```

Multiple Progress Bars

Progress bars can also be stacked:



Example

```
<div class="progress">
  <div class="progress-bar bg-success" style="width:40%">
    Free Space
  </div>
  <div class="progress-bar bg-warning" style="width:10%">
    Warning
  </div>
  <div class="progress-bar bg-danger" style="width:20%">
    Danger
  </div>
</div>
```

Bootstrap 4 Spinners

Ref: https://www.w3schools.com/bootstrap4/bootstrap_spinners.asp

Spinners

To create a spinner/loader, use the `.spinner-border` class:



Example

```
<div class="spinner-border"></div>
```

Colored Spinners

Use any **text color utilities** to add a color to the spinner:



Example

```
<div class="spinner-border text-muted"></div>
<div class="spinner-border text-primary"></div>
<div class="spinner-border text-success"></div>
<div class="spinner-border text-info"></div>
<div class="spinner-border text-warning"></div>
<div class="spinner-border text-danger"></div>
<div class="spinner-border text-secondary"></div>
<div class="spinner-border text-dark"></div>
<div class="spinner-border text-light"></div>
```

Shape	Small	Normal	Medium	Large	As Button
Border					This page is currently being updated...
Growing					JESSICAMY APPS

Growing Spinners

Use the `.spinner-grow` class if you want the spinner/loader to grow instead of "spin":



Example

```
<div class="spinner-grow text-muted"></div>
<div class="spinner-grow text-primary"></div>
<div class="spinner-grow text-success"></div>
<div class="spinner-grow text-info"></div>
<div class="spinner-grow text-warning"></div>
<div class="spinner-grow text-danger"></div>
<div class="spinner-grow text-secondary"></div>
<div class="spinner-grow text-dark"></div>
<div class="spinner-grow text-light"></div>
```

Basic Pagination

If you have a web site with lots of pages, you may wish to add some sort of pagination to each page.



To create a basic pagination, add the `.pagination` class to an `` element. Then add the `.page-item` to each `` element and a `.page-link` class to each link inside ``:

Active State

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



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 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>
```

Basic List Groups

The most basic list group is an unordered list with list items:

First item

Second item

Third item

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

Active State

Active item

Second item

Third item

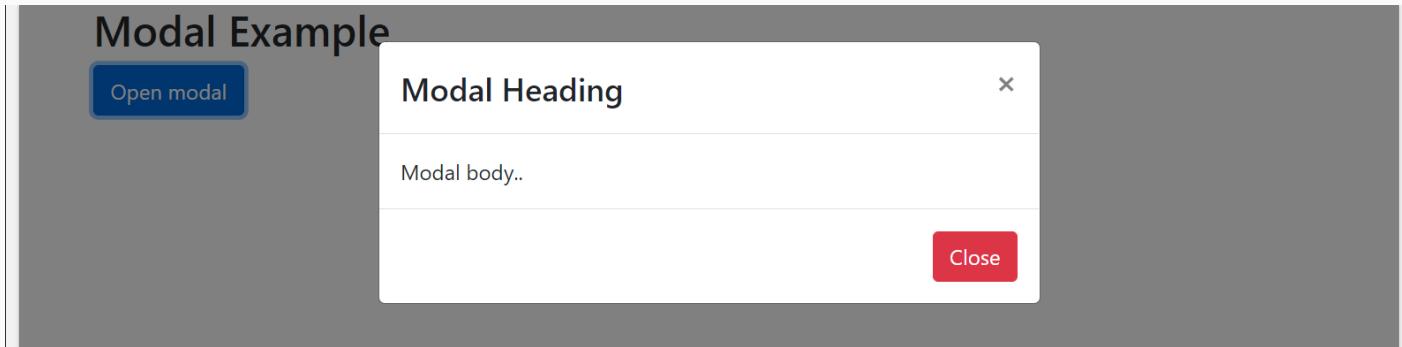
Use the `.active` class to highlight the current item:

Example

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

Bootstrap 4 Modal

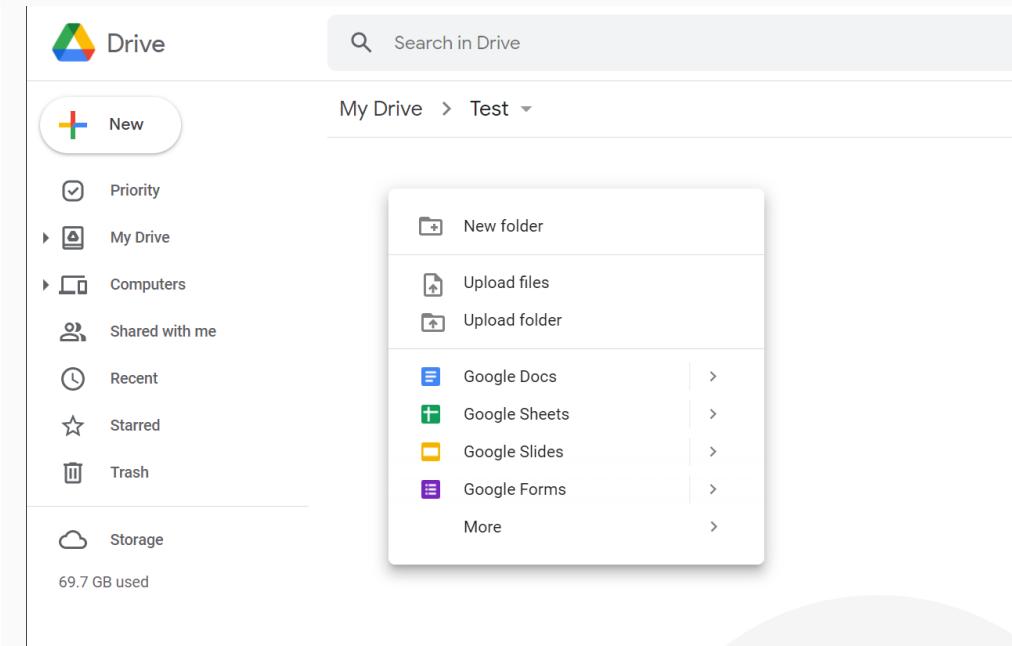
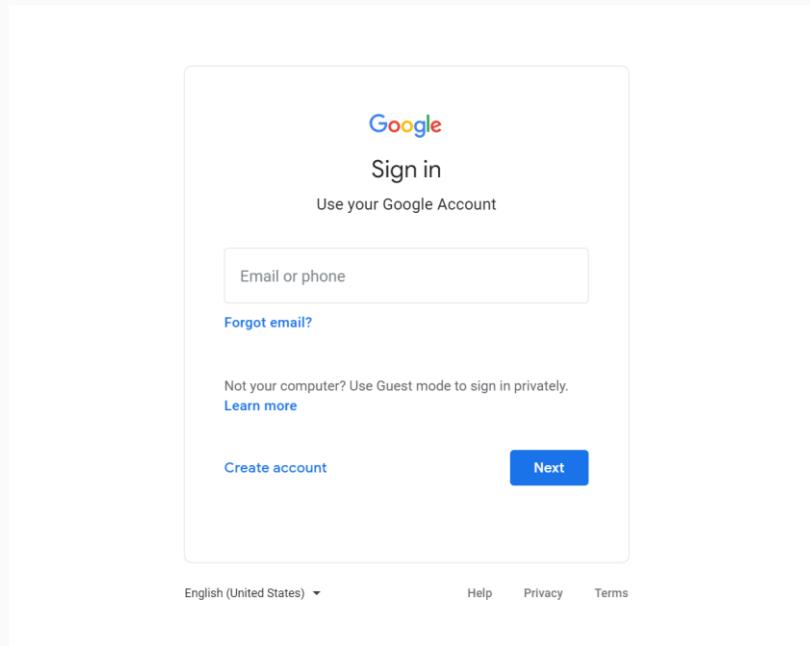
The Modal component is a dialog box/popup window that is displayed on top of the current page:



- Drawing attention to vital pieces of information.
- Blocking the application flow until information required to continue is entered.

Bootstrap 4 Modals

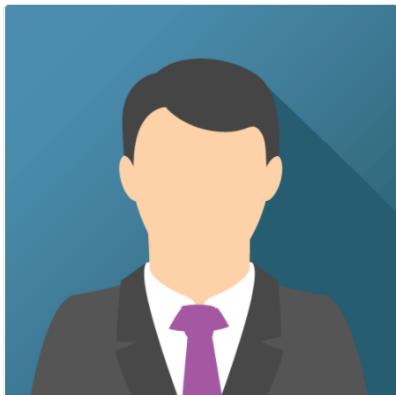
Further Examples



Bootstrap 4 Cards

Cards

A card in Bootstrap 4 is a bordered box with some padding around its content. It includes options for headers, footers, content, colors, etc.



John Doe

Some example text some example text. John Doe is an architect and engineer

[See Profile](#)

Four examples of Bootstrap 4 cards displayed side-by-side against a light grey background. Each card has a unique design and color scheme.

- The first card on the left is a simple white card with a dark blue header and footer. It contains a placeholder profile picture and sample text about John Doe.
- The second card in the middle-left is a purple-themed card featuring a placeholder profile picture and sample text about Anna Smith, a graphic designer.
- The third card in the middle-right is a card with a colorful geometric background. It features a placeholder profile picture and sample text about Billy Cullen, a web developer.
- The fourth card on the far right is a blue-themed card with a purple header. It features a placeholder profile picture and sample text about a generic card title, along with a blue button at the bottom.

Ref: https://www.w3schools.com/bootstrap4/bootstrap_cards.asp

Header and Footer

Header

Content

Footer

The `.card-header` class adds a heading to the card and the `.card-footer` class adds a footer to the card:

Example

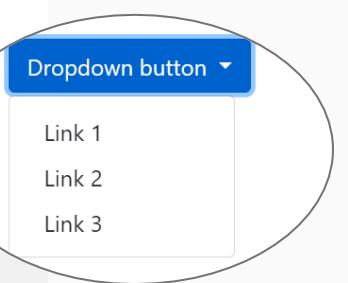
```
<div class="card">
  <div class="card-header">Header</div>
  <div class="card-body">Content</div>
  <div class="card-footer">Footer</div>
</div>
```

Bootstrap 4 Dropdowns

Basic Dropdown

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

Dropdown button ▾



Example

```
<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>
```

Bootstrap 4 Navigation Bar

Navigation Bars

A navigation bar is a navigation header that is placed at the top of the page:



Basic Navbar

With Bootstrap, a navigation bar can extend or collapse, depending on the screen size.

A standard navigation bar is created with the `.navbar` class, followed by a responsive collapsing class: `.navbar-expand-xl|lg|md|sm` (stacks the navbar vertically on extra large, large, medium or small screens).

To add links inside the navbar, use a `` element with `class="navbar-nav"`. Then add `` elements with a `.nav-item` class followed by an `<a>` element with a `.nav-link` class:

```
Link 1 Link 2 Link 3
```

```
<!-- A grey horizontal navbar that becomes vertical on small screens -->
<nav class="navbar navbar-expand-sm bg-light">

  <!-- Links -->
  <ul class="navbar-nav">
    <li class="nav-item">
      <a class="nav-link" href="#">Link 1</a>
    </li>
    <li class="nav-item">
      <a class="nav-link" href="#">Link 2</a>
    </li>
    <li class="nav-item">
      <a class="nav-link" href="#">Link 3</a>
    </li>
  </ul>

</nav>
```

Bootstrap 4 Form Layouts

Bootstrap provides two types of form layouts:

- Stacked (full-width) form
- Inline form

Bootstrap 4 Stacked Form

Email:

Password:

Remember me

Submit

Bootstrap Inline Form

Email:

Password:

Remember me **Submit**

Bootstrap 4 Forms (Stacked Forms)

Email:

Password:

Remember me

Submit

The following example creates a stacked form with two input fields, one checkbox, and a submit button.

Add a wrapper element with `.form-group`, around each form control, to ensure proper margins:

Example

```
<form action="/action_page.php">
  <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>
```

Bootstrap 4 Forms (Inline Forms)

Bootstrap Inline Form

Email: Password: Remember me

In an inline form, all of the elements are inline and left-aligned.

Note: This only applies to forms within viewports that are at least 576px wide. On screens smaller than 576px, it will stack horizontally.

Additional rule for an inline form:

- Add class `.form-inline` to the `<form>` element

The following example creates an inline form with two input fields, one checkbox, and one submit button:

Example

```
<form class="form-inline" action="/action_page.php">
    <label for="email">Email address:</label>
    <input type="email" class="form-control" id="email">
    <label for="pwd">Password:</label>
    <input type="password" class="form-control" id="pwd">
    <div class="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>
```

Bootstrap 4 Form Validation

Form Validation

Username:



Valid.

Password:



Please fill out this field.

I agree on blabla.

Check this checkbox to continue.

You can use different validation classes to provide valuable feedback to users. Add either `.was-validated` or `.needs-validation` to the `<form>` element, depending on whether you want to provide validation feedback before or after submitting the form. The input fields will have a green (valid) or red (invalid) border to indicate what's missing in the form. You can also add a `.valid-feedback` or `.invalid-feedback` message to tell the user explicitly what's missing, or needs to be done before submitting the form.

Bootstrap 4 Form Validation

Form Validation

Username:

 ✓

Valid.

Password:

 ✗

Please fill out this field.

I agree on blabla.
Check this checkbox to continue.

```
<form action="/action_page.php" class="was-validated">
  <div class="form-group">
    <label for="uname">Username:</label>
    <input type="text" class="form-control" id="uname" placeholder="Enter username" name="uname" required>
    <div class="valid-feedback">Valid.</div>
    <div class="invalid-feedback">Please fill out this field.</div>
  </div>
  <div class="form-group">
    <label for="pwd">Password:</label>
    <input type="password" class="form-control" id="pwd" placeholder="Enter password" name="pswd" required>
    <div class="valid-feedback">Valid.</div>
    <div class="invalid-feedback">Please fill out this field.</div>
  </div>
  <div class="form-group form-check">
    <label class="form-check-label">
      <input class="form-check-input" type="checkbox" name="remember" required> I agree on blabla.
      <div class="valid-feedback">Valid.</div>
      <div class="invalid-feedback">Check this checkbox to continue.</div>
    </label>
  </div>
  <button type="submit" class="btn btn-primary">Submit</button>
</form>
```

Bootstrap 4 Carousel

The Carousel is a slideshow for cycling through elements.



Bootstrap 4 Carousel



A description of what each class from the example above do:

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-control-next	Adds a right (next) button to the carousel, which allows the user to go forward between the slides
.carousel-control-prev-icon	Used together with .carousel-control-prev to create a "previous" button
.carousel-control-next-icon	Used together with .carousel-control-next to create a "next" button
.slide	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

```
<div id="demo" class="carousel slide" data-ride="carousel">

    <!-- Indicators -->
    <ul class="carousel-indicators">
        <li data-target="#demo" data-slide-to="0" class="active"></li>
        <li data-target="#demo" data-slide-to="1"></li>
        <li data-target="#demo" data-slide-to="2"></li>
    </ul>

    <!-- The slideshow -->
    <div class="carousel-inner">
        <div class="carousel-item active">
            
        </div>
        <div class="carousel-item">
            
        </div>
        <div class="carousel-item">
            
        </div>
    </div>

    <!-- Left and right controls -->
    <a class="carousel-control-prev" href="#demo" data-slide="prev">
        <span class="carousel-control-prev-icon"></span>
    </a>
    <a class="carousel-control-next" href="#demo" data-slide="next">
        <span class="carousel-control-next-icon"></span>
    </a>
</div>
```

References

<https://www.w3schools.com/bootstrap4/default.asp>

<https://getbootstrap.com/docs/4.0/components/>