

Bootstrap 5 Notes

Introduction

- Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development.
- It contains CSS and HTML-based design templates for typography, forms, buttons, navigation, and other interface components.

Key Features

- **Responsive Design:** Bootstrap's responsive CSS adjusts to phones, tablets, and desktops.
- **Pre-built Components:** Bootstrap includes over a dozen reusable components built to provide iconography, dropdowns, input groups, navigation, alerts, and much more.
- **Customizable:** Bootstrap's CSS classes can be modified and extended using Sass variables and mixins.

Basic Template---

```
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Bootstrap 5 Template</title>
  <!-- offline -->
  <link rel="stylesheet" href="./bootstrap5/dist/css/bootstrap.min.css">
  <!-- online -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-1BmE4kWBq78iYhFlvKuhfTAU6au8tT94WrlftjDbrCEXSU1oBoqy12QvZ6jIW3" crossorigin="anonymous">
</head>
<body>
  <!-- Your content here -->
  <h1 class="text-danger">Hello, world!</h1>

</body>
<!-- offline -->
<script src="./bootstrap5/dist/js/bootstrap.bundle.min.js"></script>
<!-- online -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js" integrity="sha384-ka75k0Gln4gmtz2MlQnikT1wXgYsOg+OMhuP+I1RH9sENBO0LRn5q+8nbTov4+1p" crossorigin="anonymous"></script>
</html>
```

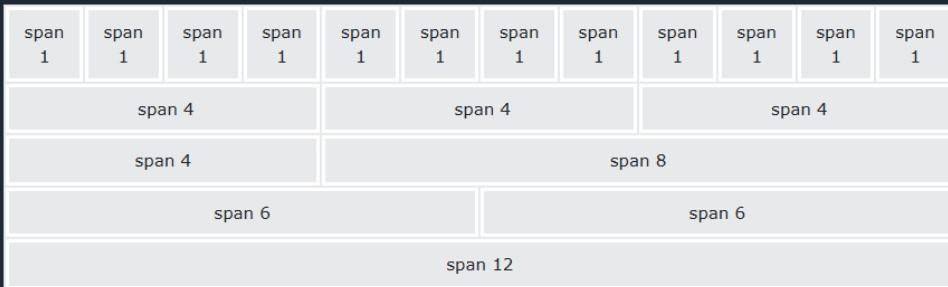
Layout

Flex System

Grid System

- **Container:** The container is the root element of the grid system.
- **Rows:** Rows are horizontal containers for columns.
- **Columns:** Columns are vertical containers for content.

Bootstrap's grid system is built with flexbox and allows up to 12 columns across the page.



Breakpoints

- **Breakpoints:** Bootstrap 5 uses the following breakpoints:

- xs : 0px (extra small)
- sm : 576px (small)
- md : 768px (medium)
- lg : 992px (large)
- xl : 1200px (extra large)
- xxl : 1400px (extra extra large)

Breakpoint	Class infix	Dimensions
Extra small	None	<576px

Small	sm	$\geq 576px$
Medium	md	$\geq 768px$
Large	lg	$\geq 992px$
Extra large	xl	$\geq 1200px$
Extra extra large	xxl	$\geq 1400px$

Utilities

Margin, Padding

Where property is one of:
 m - sets margin
 p - sets padding

Where sides is one of:
 t - sets margin-top or padding-top
 b - sets margin-bottom or padding-bottom
 s - sets margin-left or padding-left
 e - sets margin-right or padding-right
 x - sets both padding-left and padding-right or margin-left and margin-right
 y - sets both padding-top and padding-bottom or margin-top and margin-bottom
 'blank' - sets a margin or padding on all 4 sides of the element

Where size is one of:

- 0 - sets margin or padding to 0
- 1 - sets margin or padding to .25rem
- 2 - sets margin or padding to .5rem
- 3 - sets margin or padding to 1rem
- 4 - sets margin or padding to 1.5rem
- 5 - sets margin or padding to 3rem
- 'auto' - sets margin to auto

Sizing Utilities

- .w-0 => 0%
- .w-25 => 25%
- .w-50 => 50%
- .w-75 => 75%
- .w-100 => 100%
- .mw-100 => max-width: 100%
- .mh-100 => max-height: 100%
- .h-0 => 0%
- .h-25 => 25%
- .h-50 => 50%
- .h-75 => 75%
- .h-100 => 100%

Text Utilities

- .text-* for text color classes (e.g., .text-primary for primary color, .text-secondary for secondary color)
- .fw-* for font weight classes (e.g., .fw-bold for bold, .fw-light for light)
- .fs-* for font size classes (e.g., .fs-1 for large font size, .fs-6 for small font size)

Background Utilities

- .bg-* for background color classes (e.g., .bg-primary for primary color, .bg-secondary for secondary color)
- .bg-opacity-* for background opacity classes (e.g., .bg-opacity-25 for 25% opacity, .bg-opacity-50 for 50% opacity)

Colors name

- Primary: .text-primary, .bg-primary
- Secondary: .text-secondary, .bg-secondary
- Success: .text-success, .bg-success
- Danger: .text-danger, .bg-danger
- Warning: .text-warning, .bg-warning
- Info: .text-info, .bg-info
- Light: .text-light, .bg-light
- Dark: .text-dark, .bg-dark
- White: .text-white, .bg-white
- Black: .text-black, .bg-black

Border Classes

Border Utilities

- .border - adds a border to all sides of an element.
- .border-top - adds a border to the top of an element.
- .border-end - adds a border to the right side of an element (left in RTL).
- .border-bottom - adds a border to the bottom of an element.

- `.border-start` - adds a border to the left side of an element (right in RTL).

Border Width

- `.border-*` - the border width (* --> 0-5)
- `.border-*-0` - the border for specific side (* ==> top|start|end|bottom).

Border Colors

- `.border-*` - sets the border color to (* ==> primary,success ...).

Border Radius

- `.rounded` - adds a border radius to the element.
- `.rounded-*` - adds a border radius to the (* ==> top|start|end|bottom|circle|pill|width=[0-5]).
- `.rounded-0` - removes the border radius.

Border Opacity

- `.border-opacity-*` - sets the border opacity where * can be a value from 0 to 100 (e.g., `.border-opacity-50` for 50% opacity).

Example

```
<div class="border border-primary rounded-pill p-3">
  This is a bordered and rounded element.
</div>
```

Default Settings

- Bootstrap 5 uses a default font-size of 1rem (16px by default), and its line-height is 1.5.
- In addition, all `<p>` elements have `margin-top: 0` and `margin-bottom: 1rem` (16px by default).

Typography Classes

Font Weight Classes

- `.fw-bold` - sets font weight to bold
- `.fw-bolder` - sets font weight to bolder
- `.fw-normal` - sets font weight to normal
- `.fw-light` - sets font weight to light
- `.fw-lighter` - sets font weight to lighter

Font Size Classes

- `.fs-1` - sets font size to large (2.5rem)
- `.fs-2` - sets font size to large (2rem)
- `.fs-3` - sets font size to large (1.75rem)
- `.fs-4` - sets font size to large (1.5rem)
- `.fs-5` - sets font size to large (1.25rem)
- `.fs-6` - sets font size to small (1rem)

Font Style Classes

- `.fst-italic` - sets font style to italic
- `.fst-normal` - sets font style to normal

Text Alignment Classes

- `.text-start` - sets text alignment to start
- `.text-end` - sets text alignment to end
- `.text-center` - sets text alignment to center

Text Decoration Classes

- `.text-decoration-none` - sets text decoration to none
- `.text-decoration-underline` - sets text decoration to underline
- `.text-decoration-line-through` - sets text decoration to line-through

Text Transform Classes

- `.text-lowercase` - sets text transform to lowercase
- `.text-uppercase` - sets text transform to uppercase
- `.text-capitalize` - sets text transform to capitalize

Float Classes

Overview

Bootstrap 5 provides several float classes to control the alignment of elements.

Float Classes

- `.float-start` - floats an element to the start (left) of its parent

- `.float-end` - floats an element to the end (right) of its parent
- `.float-none` - removes floating from an element

Responsive Float Classes

- `.float-*sm*-start` - floats an element to the start (left) of its parent on (* ==> sm|md|lg|xl|xxl) screens and above

Center Align

- Center an element with the `.mx-auto` class (adds margin-left and margin-right: auto):

Example

```
<div class="float-start">Float start</div>
<div class="float-end">Float end</div>
<div class="float-none">Float none</div>
```

Shadow Classes

Overview

Bootstrap 5 provides several shadow classes to add depth and dimension to elements.

Shadow Classes

- `.shadow-*` - adds a shadow to an element (* ==> none|sm|lg|xl|xxl|xxxl)
- `.shadow` - adds a regular shadow to an element

Example

```
<div class="shadow-sm p-3 mb-5 bg-white rounded">Small shadow</div>
```

Vertical Align Classes

- Change the alignment of elements with the align classes (only works on inline, inline-block, inline-table and table cell elements):

Classes

- `.align-baseline` - aligns elements to their baseline
- `.align-top` - aligns elements to the top of their parent
- `.align-middle` - aligns elements to the middle of their parent
- `.align-bottom` - aligns elements to the bottom of their parent
- `.align-text-top` - aligns text to the top of its parent
- `.align-text-bottom` - aligns text to the bottom of its parent

Aspect Ratio Classes

Bootstrap 5 provides several aspect ratio classes to control the aspect ratio of elements.

Basic Aspect Ratio Classes

- `.ratio` - basic aspect ratio class
- `.ratio-1x1` - sets aspect ratio to 1:1
- `.ratio-4x3` - sets aspect ratio to 4:3
- `.ratio-16x9` - sets aspect ratio to 16:9
- `.ratio-21x9` - sets aspect ratio to 21:9

Example

```
<div class="ratio ratio-4x3">
  <iframe src="https://www.youtube.com/embed/tgbNymZ7vqY"></iframe>
</div>
```

Aspect Ratio with Responsive Values

- `.ratio-*-*` - sets responsive aspect ratio (* can be any value, e.g. `ratio-md-4x3`, `ratio-lg-16x9`, etc.)

Example

```
<div class="ratio ratio-md-4x3 ratio-lg-16x9">
  <!-- content -->
</div>
```

Visibility Classes

Basic Visibility Classes

- `.visible` - makes an element visible
- `.invisible` - makes an element invisible

Example

Example

```
<div class="visible">This element is visible</div>
<div class="invisible">This element is invisible</div>
```

Screen Reader Classes

Introduction

- Bootstrap 5 provides several screen reader classes to improve accessibility for visually impaired users.
- These classes can be used to hide or show content from screen readers.

Screen Reader Utilities

- .visually-hidden - hides content from all devices, including screen readers

Example

```
<button class="visually-hidden" type="button">Close</button>
```

Flex Classes

Introduction

- Bootstrap 5 provides a set of flexbox utility classes to control the layout of elements.

Flex Container Classes

- .d-flex - sets `display: flex` on an element
- .d-inline-flex - sets `display: inline-flex` on an element

Flex Direction Classes

- .flex-row - sets `flex-direction: row` on an element [default]
- .flex-row-reverse - sets `flex-direction: row-reverse` on an element
- .flex-column - sets `flex-direction: column` on an element
- .flex-column-reverse - sets `flex-direction: column-reverse` on an element

Flex Wrap Classes

- .flex-wrap - sets `flex-wrap: wrap` on an element
- .flexnowrap - sets `flex-wrap: nowrap` on an element [default]
- .flex-wrap-reverse - sets `flex-wrap: wrap-reverse` on an element

Justify Content Classes

- .justify-content-* - sets `justify-content: flex-(* => start[default]|end|center|between|around|evenly)` on an element

Align Items Classes

Control the vertical alignment of single rows of flex items

- .align-items-start - sets `align-items: flex-(* => start|end|center|baseline|stretch[default])` on an element

Align Content Classes

- Control the vertical alignment of gathered flex items
- These classes have no effect on single rows of flex items.

- .align-content-start - sets `align-content: flex-(* => start[default]|end|center|between|around|stretch)` on an element

Flex Grow or fill and Shrink Classes

- .flex-grow-* - sets `flex-grow: (* => 0-1)` on an element
- .flex-shrink-* - sets `flex-shrink: (* => 0-1)` on an element
- .flex-fill - Use .flex-fill on flex items to force them into equal widths

Align Self Classes

Align Self Classes

- `.align-self-*` - aligns an element to the (`* ==> start|end|center|baseline|stretch[default]`) of its parent

Order

- `.order-*` - sets for arrange elements order (`* ==> 0-5|first|last`)

Example

```
<div class="d-flex justify-content-center align-items-center">
  <div class="flex-grow-1">Flex item 1</div>
  <div class="flex-grow-1">Flex item 2</div>
  <div class="flex-grow-1">Flex item 3</div>
</div>
```

Responsive Classes

- `.d-*_flex` - sets display value on specific breakpoint (`* ==> sm|md|lg|x1|xx1`)
- `.flex-*_start` - sets flex direction on specific breakpoint (`* ==> sm|md|lg|x1|xx1`)
- `.justify-content-*_start` - sets justify content start on specific breakpoint (`* ==> sm|md|lg|x1|xx1`)
- `.align-items-*_start` - sets align items start on specific breakpoint (`* ==> sm|md|lg|x1|xx1`)
- `.align-content-*_start` - sets align content start on specific breakpoint (`* ==> sm|md|lg|x1|xx1`)
- `.flex-*_grow-0` - sets flex grow 0 on specific breakpoint (`* ==> sm|md|lg|x1|xx1`)
- `.flex-*_shrink-0` - sets flex shrink 0 on specific breakpoint (`* ==> sm|md|lg|x1|xx1`)
- `.flex-*_fill` - sets flex fill on small screens (`* ==> sm|md|lg|x1|xx1`)
- `.order-*_0` - sets order 0 on specific breakpoint (`* ==> sm|md|lg|x1|xx1`)
- `.align-self-*_start` - sets self alignment on specific breakpoint (`* ==> sm|md|lg|x1|xx1`)

Example

```
<div class="d-flex">
  <div class="self-start self-md-center">Responsive alignment</div>
</div>
```

Table Classes

Basic Table

- `.table` - basic table class

Example

```
<table class="table">
  <thead>
    <tr>
      <th scope="col">#</th>
      <th scope="col">First</th>
      <th scope="col">Last</th>
      <th scope="col">Handle</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <th scope="row">1</th>
      <td>Mark</td>
      <td>Otto</td>
      <td>@mdo</td>
    </tr>
  </tbody>
</table>
```

Table Variants----

- `.table-striped` - adds zebra-striping to any table row within the `<tbody>`
- `.table-bordered` - adds borders on all sides of the table and cells
- `.table-borderless` - removes borders on all sides of the table and cells
- `.table-hover` - enables a hover state on table rows within a `<tbody>`

Example

```
<table class="table table-striped">
  <!-- table content -->
</table>

<table class="table table-bordered">
  <!-- table content -->
</table>

<table class="table table-borderless">
  <!-- table content -->
</table>

<table class="table table-hover">
  <!-- table content -->
```

```
</table>
```

Table Colors---

- `.table-*` - sets table background color to any color (* ==> primary, success, ...)

Example

```
<table class="table table-primary">
  <!-- table content -->
</table>
```

Table Responsive-----

- `.table-responsive` - makes table responsive
- `.table-responsive-*` - makes table responsive on small screens (* ==> sm, lg, md...)

```
<div class="table-responsive">
  <table class="table table-primary">
    <!-- table content -->
  </table>
</div>
```

Image Classes

Responsive Images----

- `.img-fluid` - makes an image responsive
- `.img-thumbnail` - adds a thumbnail style to an image

Example

```


```

Image Alignment----

- `.float-start` - floats an image to the left
- `.float-end` - floats an image to the right
- `.float-none` - removes floating from an image
- `.mx-auto` - centers an image horizontally

Example

```



```

Image Sizes

Example

```




```

Jumbotron

* A jumbotron was introduced in Bootstrap 3 as a big padded box for calling extra attention to some special content or information.

* Jumbotrons are no longer supported in Bootstrap 5.

Jumbotron Example

 Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed
 do eiusmod tempor incididunt ut labore et dolore magna
 aliqua. Ut enim ad minim veniam, quis nostrud exercitation
 ullamco laboris nisi ut aliquip ex ea commodo consequat..

Alert Classes

Basic Alert

Basic Alerts

- `.alert` - basic alert class
- `.alert-*` - sets alert background color to any color (* => primary, success, ...)

Example

```
<div class="alert alert-primary" role="alert">  
  A simple primary alert—check it out!  
</div>
```

Dismissible Alerts-----

- `.alert-dismissible` - makes an alert dismissible
- `.btn-close` - adds a close button to an alert

Example

```
<div class="alert alert-primary alert-dismissible fade show" role="alert">  
  A simple primary alert—check it out!  
  <button type="button" class="btn-close" data-bs-dismiss="alert" aria-label="Close"></button>  
</div>
```

Alert Links

- `.alert-link` - adds a link style to an alert

Example

```
<div class="alert alert-primary" role="alert">  
  A simple primary alert with <a href="#" class="alert-link">an example link</a>. Give it a click if you like.  
</div>
```

Button Classes

Basic Button

- `.btn` - basic button class
- `.btn-*` - sets button background color to any color (* => primary, success, ...)

Example

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

Button Variants

- `.btn-outline-*` - sets button outline color to any color (* => primary, success, ...)
- `.btn-link` - adds a link style to a button

Example

```
<button class="btn btn-outline-primary" type="button">Outline primary button</button>  
<button class="btn btn-link" type="button">Link button</button>
```

Button Sizes

- `.btn-sm` - sets button size to small
- `.btn-lg` - sets button size to large

Example

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

Button States

- `.active` - sets button state to active
- `.disabled` - sets button state to disabled

Example

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

Basic Button Group

- `.btn-group` - basic button group class
- `.btn-group-sm` - sets button group size to small
- `.btn-group-lg` - sets button group size to large

Example

```
<div class="btn-group btn-group-sm" role="group" aria-label="Small button group">  
  <button type="button" class="btn btn-primary">Left</button>
```

```
<button type="button" class="btn btn-primary">Middle</button>
<button type="button" class="btn btn-primary">Right</button>
</div>
```

Button Group Vertical

- `.btn-group-vertical` - makes button group vertical

Example

```
<div class="btn-group-vertical" role="group" aria-label="Vertical button group">
  <button type="button" class="btn btn-primary">Top</button>
  <button type="button" class="btn btn-primary">Middle</button>
  <button type="button" class="btn btn-primary">Bottom</button>
</div>
```

Button Group Toolbar

- `.btn-toolbar` - makes button group a toolbar

Example

```
<div class="btn-toolbar" role="toolbar" aria-label="Toolbar with button groups">
  <div class="btn-group me-2" role="group" aria-label="First group">
    <button type="button" class="btn btn-primary">1</button>
    <button type="button" class="btn btn-primary">2</button>
    <button type="button" class="btn btn-primary">3</button>
  </div>
  <div class="btn-group me-2" role="group" aria-label="Second group">
    <button type="button" class="btn btn-secondary">4</button>
    <button type="button" class="btn btn-secondary">5</button>
    <button type="button" class="btn btn-secondary">6</button>
  </div>
</div>
```

Badges Classes

Badges are used to add additional information to any content

Basic Badges

- `.badge` - basic badge class
- `.badge-*` - sets badge background color to any color (* => primary, success, ...)
- `.rounded-pill` - pill like shape
- `.badge-sm` - sets badge size to small
- `.badge-lg` - sets badge size to large

Example

```
<span class="badge bg-primary rounded-pill">Primary badge</span>
```

Progress Bar Classes

Basic Progress Bar

- `.progress` - basic progress bar class
- `.progress-*` - sets progress bar background color to any color (* => primary, success, ...)
- `.progress-sm` - sets progress bar size to small
- `.progress-lg` - sets progress bar size to large
- Labels can be added to the progress bar using the `.progress-bar` class and the `aria-label` attribute

Example

```
<div class="progress progress-sm">
  <div class="progress-bar" role="progressbar" aria-label="Progress" aria-valuenow="0" aria-valuemin="0" aria-valuemax="100"></div>
</div>
```

Progress Bar Variants

- `.progress-bar-striped` - adds stripes to the progress bar
- `.progress-bar-animated` - animates the progress bar

Example

```
<div class="progress">
  <div class="progress-bar progress-bar-striped progress-bar-animated" role="progressbar" aria-valuenow="75" aria-valuemin="0" aria-valuemax="100"></div>
</div>
```

Progress Bar Multiple Bars

- Multiple progress bars can be used within a single `.progress` container

Example

```
<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 class="progress-bar bg-info" role="progressbar" style="width: 30%" aria-valuenow="30" aria-valuemin="0" aria-valuemax="100"></div>
  <div class="progress-bar bg-warning" role="progressbar" style="width: 20%" aria-valuenow="20" aria-valuemin="0" aria-valuemax="100"></div>
</div>
```

Spinner Classes

Basic Spinner

- `.spinner-border` - basic spinner class
- `.spinner-border-*` - sets spinner border color to any color (* => primary, success, ...)

Spinner Size

- `.spinner-border-sm` - sets spinner size to small
- `.spinner-border-lg` - sets spinner size to large

Example

```
<div class="spinner-border spinner-border-sm text-primary" role="status">
  <span class="visually-hidden">Loading...</span>
</div>
```

Spinner Growing

- `.spinner-grow` - basic growing spinner class
- `.spinner-grow-*` - sets growing spinner color to any color (* => primary, success, ...)

Spinner Growing Size

- `.spinner-grow-sm` - sets growing spinner size to small
- `.spinner-grow-lg` - sets growing spinner size to large

Example

```
<div class="spinner-grow spinner-grow-sm text-primary" role="status">
  <span class="visually-hidden">Loading...</span>
</div>
```

Pagination Classes

Basic Pagination

- `.pagination` - basic pagination class
- `.pagination-lg` - sets pagination size to large
- `.pagination-sm` - sets pagination size to small

Pagination State

- `.active` - sets pagination item to active state
- `.disabled` - sets pagination item to disabled state

Example

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

List Group Classes

Basic List Group

- `.list-group` - basic list group class
- `.list-group-item` - basic list group item class

List Group Item Variants

- `.list-group-item-*` - sets list group item background color to any color (* => primary, success, ...)

Example

```
<ul class="list-group">
```

```
<ul class="list-group">
  <li class="list-group-item list-group-item-primary">A primary item</li>
  <li class="list-group-item list-group-item-success">A success item</li>
  <li class="list-group-item list-group-item-danger">A danger item</li>
</ul>
```

List Group Flush

- `.list-group-flush` - removes some borders and rounded corners from list group

Example

```
<ul class="list-group list-group-flush">
  <li class="list-group-item">An item</li>
  <li class="list-group-item">A second item</li>
  <li class="list-group-item">A third item</li>
</ul>
```

List Group Horizontal

- `.list-group-horizontal` - makes list group horizontal
- `.list-group-horizontal-*` - makes list group horizontal on specific breakpoint (* => sm, md, lg, ...)

Example

```
<ul class="list-group list-group-horizontal">
  <li class="list-group-item">An item</li>
  <li class="list-group-item">A second item</li>
  <li class="list-group-item">A third item</li>
</ul>
```

List Group Numbered

- `.list-group-numbered` - makes list group numbered

Example

```
<ol class="list-group list-group-numbered">
  <li class="list-group-item">An item</li>
  <li class="list-group-item">A second item</li>
  <li class="list-group-item">A third item</li>
</ol>
```

Card Classes

Basic Card

- `.card` - basic card class
- `.card-body` - card body class
- `.card-title` - card title class
- `.card-text` - card text class
- `.card-header` - card header class
- `.card-footer` - card footer class

Example

```
<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>
```

Card Image

- `.card-img-top` - card image top class
- `.card-img-bottom` - card image bottom class
- `.card-img-overlay` - card image overlay class

Card Groups

- `.card-group > .card` - card group item class

Card Decks

- `.card-deck > .card` - card deck item class

Card Columns

- `.card-columns > .card` - card columns item class

Example

```
<div class="card-columns">
  <div class="card">
    
    <div class="card-body">
      <h5 class="card-title">Card title that wraps to a new line</h5>
      <p class="card-text">This is a longer card with supporting text below as a natural lead-in to additional content. This content is a little bit longer.</p>
    </div>
  </div>
  <div class="card p-3">
    <blockquote class="blockquote mb-0 card-body">
      <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer posuere erat a ante venenatis dapibus posuere velit aliquet.</p>
    <footer class="blockquote-footer mt-0 blockquote">
      <small class="text-muted">
        Someone famous in <cite title="Source Title">Source Title</cite>
      </small>
    </footer>
  </blockquote>
  </div>
  <div class="card">
    
    <div class="card-body">
      <h5 class="card-title">Card title</h5>
      <p class="card-text">This card has supporting text below as a natural lead-in to additional content.</p>
      <p class="card-text"><small class="text-muted">Last updated 3 mins ago</small></p>
    </div>
  </div>
  <div class="card bg-primary text-white text-center p-3">
    <blockquote class="blockquote mb-0 card-body">
      <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer posuere erat.</p>
    <footer class="blockquote-footer mt-0 blockquote">
      <small class="text-light">
        Someone famous in <cite title="Source Title">Source Title</cite>
      </small>
    </footer>
  </blockquote>
  </div>
  <div class="card text-center">
    <div class="card-body">
      <h5 class="card-title">Card title</h5>
      <p class="card-text">This card has a regular title and short paragraph of text below it.</p>
      <p class="card-text"><small class="text-muted">Last updated 3 mins ago</small></p>
    </div>
  </div>
  <div class="card">
    
  </div>
  <div class="card p-3 text-right">
    <blockquote class="blockquote mb-0 card-body">
      <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer posuere erat a ante venenatis dapibus posuere velit aliquet.</p>
    <footer class="blockquote-footer mt-0 blockquote">
      <small class="text-muted">
        Someone famous in <cite title="Source Title">Source Title</cite>
      </small>
    </footer>
  </blockquote>
  </div>
</div>
```

Dropdown Classes

Basic Dropdown

- `.dropdown` - basic dropdown container class
- `.dropdown-toggle` - toggles the dropdown menu
- `.dropdown-menu` - container for dropdown items
- `.dropdown-item` - individual dropdown item

Example

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

Dropdown Variants

- `.dropdown-menu .dropdown-menu-dark` - applies a dark theme to the dropdown menu
- `.dropdown-menu > .dropdown-divider` - adds a divider between dropdown items in hr tag
- `.dropdown-menu > .dropdown-header` - adds a header to the dropdown menu in heading tag
- `.dropdown-item-text` - adds plain text to the dropdown menu in span tag

Dropdown Alignment

- `.dropdown-menu .dropdown-menu-end` - aligns the dropdown menu to the right
- `.dropdown-menu .dropdown-menu-start` - aligns the dropdown menu to the left (default)
- `.dropdown-menu-sm-end , .dropdown-menu-md-end , .dropdown-menu-lg-end , .dropdown-menu-xl-end` - aligns the dropdown menu to the right on specific breakpoints

Dropdown Positioning

- `.dropdown .dropup` - positions the dropdown menu above the button
- `.dropdown .dropend` - positions the dropdown menu to the right of the button
- `.dropdown .dropstart` - positions the dropdown menu to the left of the button

Dropdown with Forms

- Forms can be included inside dropdown menus for additional functionality.

Collapse Classes

Basic Collapse

- `.collapse` - basic collapse class
- `.collapsing` - applied during the transition phase when toggling the collapse

Example

```
<a class="btn btn-primary" data-bs-toggle="collapse" href="#collapseExample" role="button" aria-expanded="false" aria-controls="collapseExample">
  Toggle Collapse
</a>
<div class="collapse" id="collapseExample">
  <div class="card card-body">
    This is some placeholder content for a collapsible component.
  </div>
</div>
```

Collapse with Buttons

- Multiple buttons can control the same collapsible element.

Accordion

- `.accordion` - container for accordion items
- `.accordion-item` - individual accordion item
- `.accordion-header` - header for the accordion item
- `.accordion-button` - button to toggle the accordion item
- `.accordion-collapse` - container for the collapsible content

Example

```
<div class="accordion" id="accordionExample">
  <div class="accordion-item">
    <h2 class="accordion-header" id="headingOne">
      <button class="accordion-button" type="button" data-bs-toggle="collapse" data-bs-target="#collapseOne" aria-expanded="true" aria-controls="collapseOne">
        Accordion Item #1
      </button>
    </h2>
    <div id="collapseOne" class="accordion-collapse collapse show" aria-labelledby="headingOne" data-bs-parent="#accordionExample">
      <div class="accordion-body">
        This is the first item's accordion body.
      </div>
    </div>
  </div>
  <div class="accordion-item">
    <h2 class="accordion-header" id="headingTwo">
      <button class="accordion-button collapsed" type="button" data-bs-toggle="collapse" data-bs-target="#collapseTwo" aria-expanded="false" aria-controls="collapseTwo">
        Accordion Item #2
      </button>
    </h2>
    <div id="collapseTwo" class="accordion-collapse collapse" aria-labelledby="headingTwo" data-bs-parent="#accordionExample">
      <div class="accordion-body">
        This is the second item's accordion body.
      </div>
    </div>
  </div>
</div>
```

Navs Classes

Basic Nav

- `.nav` - basic nav container class
- `.nav-item` - individual nav item class
- `.nav-link` - individual nav link class

Example

```


- Active
- Link
- Disabled

```

Nav Variants

- `.nav-tabs` - creates a tabbed navigation
- `.nav-pills` - creates a pill-style navigation

Example

```

<!-- Nav pills -->


- Home
- Menu 1
- Menu 2



<!-- Tab panes -->


<br>


### HOME



Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.



<br>


### Menu 1



Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.



<br>


### Menu 2



Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam.


```

Tabs with Dropdowns

- Dropdowns can be included in navs for additional functionality.

Navbar Classes

Basic Navbar

- `.navbar` - basic navbar container class
- `.navbar-expand-*` - makes the navbar responsive (* can be `sm`, `md`, `lg`, `xl`, `xxl`)
- `.navbar-light` - applies light theme to the navbar
- `.navbar-dark` - applies dark theme to the navbar

Navbar Variants

- `.navbar-fixed-top` - fixes the navbar to the top of the viewport
- `.navbar-fixed-bottom` - fixes the navbar to the bottom of the viewport
- `.navbar-sticky-top` - sticks the navbar to the top of the viewport when scrolling

Navbar Brand

- `.navbar-brand` - styles the brand/logo in the navbar

Navbar Toggler

- `.navbar-toggler` - styles the toggle button for collapsing the navbar
- `.navbar-toggler-icon` - adds a default icon to the toggle button

Navbar Collapse

- `.collapse` - collapses the navbar content
- `.navbar-collapse` - container for collapsible navbar content

Navbar Items

- `.nav-item` - styles individual navbar items
- `.nav-link` - styles links inside the navbar

Example with Dropdown

```
<nav class="navbar navbar-expand-lg navbar-dark bg-dark">
  <div class="container-fluid">
    <a class="navbar-brand" href="#">Brand</a>
    <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarNavDropdown" aria-controls="navbarNavDropdown" aria-expanded="false" aria-label="Toggle navigation">
      <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="navbarNavDropdown">
      <ul class="navbar-nav">
        <li class="nav-item">
          <a class="nav-link active" aria-current="page" href="#">Home</a>
        </li>
        <li class="nav-item">
          <a class="nav-link" href="#">About</a>
        </li>
        <li class="nav-item dropdown">
          <a class="nav-link dropdown-toggle" href="#" id="navbarDropdown" role="button" data-bs-toggle="dropdown" aria-expanded="false">
            Dropdown
          </a>
          <ul class="dropdown-menu" aria-labelledby="navbarDropdown">
            <li><a class="dropdown-item" href="#">Action</a></li>
            <li><a class="dropdown-item" href="#">Another action</a></li>
            <li><hr class="dropdown-divider"></li>
            <li><a class="dropdown-item" href="#">Something else here</a></li>
          </ul>
        </li>
      </ul>
    </div>
  </div>
</nav>
```

Carousel Classes

Basic Carousel

- `.carousel` - basic carousel container class
- `.carousel-inner` - container for carousel items
- `.carousel-item` - individual carousel item class
- `.carousel-control-prev` - styles the previous control button
- `.carousel-control-next` - styles the next control button
- `.carousel-indicators` - container for carousel indicators

Carousel Variants

- `.carousel .carousel-fade` - adds a fade effect between slides

Carousel Captions

- `.carousel-item > .carousel-caption` - adds captions to carousel items

Carousel Controls

- `.carousel-control-prev-icon` - styles the previous control icon
- `.carousel-control-next-icon` - styles the next control icon

Carousel Interval

- `.carousel-item ~ data-bs-interval` - sets the interval between slides (in milliseconds)

Example

```
<div id="carouselExampleIndicators" class="carousel slide" data-bs-ride="carousel">
  <div class="carousel-indicators">
    <button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="0" class="active" aria-current="true" aria-label="Slide 1"></button>
    <button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="1" aria-label="Slide 2"></button>
    <button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="2" aria-label="Slide 3"></button>
  </div>
  <div class="carousel-inner">
    <div class="carousel-item active">
      
    </div>
    <div class="carousel-item">
      
    </div>
    <div class="carousel-item">
      
    </div>
  </div>
  <button class="carousel-control-prev" type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide="prev">
    <span class="carousel-control-prev-icon" aria-hidden="true"></span>
    <span class="visually-hidden">Previous</span>
  </button>
  <button class="carousel-control-next" type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide="next">
    <span class="carousel-control-next-icon" aria-hidden="true"></span>
    <span class="visually-hidden">Next</span>
  </button>
</div>
```

```
</button>
</div>
```

Modal Classes

Basic Modal

- `.modal` - basic modal container class
- `.modal-dialog` - container for modal content
- `.modal-content` - container for modal elements (header, body, footer)
- `.modal-header` - styles the modal header
- `.modal-body` - styles the modal body
- `.modal-footer` - styles the modal footer

Example

```
<!-- Button to Open the Modal -->
<button type="button" class="btn btn-primary" data-bs-toggle="modal" data-bs-target="#myModal">
  Open modal
</button>

<!-- The Modal -->
<div class="modal fade" id="myModal" tabindex="-1" aria-labelledby="exampleModalLabel" aria-hidden="true">
  <div class="modal-dialog">
    <div class="modal-content">
      <div class="modal-header">
        <h5 class="modal-title" id="exampleModalLabel">Modal title</h5>
        <button type="button" class="btn-close" data-bs-dismiss="modal" aria-label="Close"></button>
      </div>
      <div class="modal-body">
        This is the modal body content.
      </div>
      <div class="modal-footer">
        <button type="button" class="btn btn-secondary" data-bs-dismiss="modal">Close</button>
        <button type="button" class="btn btn-primary">Save changes</button>
      </div>
    </div>
  </div>
</div>
```

Modal Variants

- `.model-dialog .modal-lg` - makes the modal large
- `.model-dialog .modal-sm` - makes the modal small
- `.model-dialog .modal-fullscreen` - makes the modal fullscreen
- `.model-dialog .modal-fullscreen-*` - makes the modal fullscreen on specific breakpoints (* can be `sm`, `md`, `lg`, `xl`, `xxl`)

Modal Centering

- `.modal-dialog .modal-dialog-centered` - vertically centers the modal

Modal Scrolling

- `.modal-dialog .modal-dialog-scrollable` - makes the modal body scrollable

Modal Static Backdrop

- `.modal ~ data-bs-backdrop="static"` - prevents the modal from closing when clicking outside
- `.modal ~ data-bs-keyboard="false"` - disables closing the modal with the keyboard

Offcanvas Classes

Basic Offcanvas

- `.offcanvas` - basic offcanvas container class
- `.offcanvas-header` - styles the header of the offcanvas
- `.offcanvas-body` - styles the body of the offcanvas

Example

```
<!-- Button to trigger offcanvas -->
<button class="btn btn-primary" type="button" data-bs-toggle="offcanvas" data-bs-target="#offcanvasExample" aria-controls="offcanvasExample">
  Open Offcanvas
</button>

<!-- Offcanvas -->
<div class="offcanvas offcanvas-start" tabindex="-1" id="offcanvasExample" aria-labelledby="offcanvasExampleLabel">
  <div class="offcanvas-header">
    <h5 class="offcanvas-title" id="offcanvasExampleLabel">Offcanvas Title</h5>
    <button type="button" class="btn-close" data-bs-dismiss="offcanvas" aria-label="Close"></button>
  </div>
  <div class="offcanvas-body">
    <p>This is the offcanvas body content.</p>
  </div>
</div>
```

```
</div>



## Offcanvas Placement



- .offcanvas-* - positions the offcanvas to the (* ==> start|end|bottom|top)

```

Offcanvas Scrolling

- .offcanvas ~ data-bs-scroll="true" - allows scrolling within the offcanvas
- .offcanvas ~ data-bs-backdrop="false" - disables the backdrop for the offcanvas

Offcanvas Responsive

- Offcanvas can be made responsive by using media queries or utility classes to control visibility and placement.
- .offcanvas .offcanvas-* - makes the modal fullscreen on specific breakpoints (* can be sm, md, lg, xl, xxl)

Forms

Form Classes

- .form-control - basic form control class for input fields, selects, and textareas
- .form-label - styles the label for a form control
- .form-text - adds a text description to a form control
- .form-check - styles a checkbox or radio button
- .form-check-label - styles the label for a checkbox or radio button
- .form-check-input - styles the checkbox or radio button input
- .form-switch - styles a switch toggle
- .form-select - styles a select dropdown
- .form-range - styles a range slider

Form Layout Classes

- .form-inline - makes form controls display inline
- .form-horizontal - makes form controls display horizontally
- .form-vertical - makes form controls display vertically (default)

Example

```
<form>
  <div class="mb-3">
    <label for="exampleInputEmail1" class="form-label">Email address</label>
    <input type="email" class="form-control" id="exampleInputEmail1" aria-describedby="emailHelp">
    <div id="emailHelp" class="form-text">We'll never share your email with anyone else.</div>
  </div>
  <div class="mb-3">
    <label for="exampleInputPassword1" class="form-label">Password</label>
    <input type="password" class="form-control" id="exampleInputPassword1">
  </div>
  <div class="mb-3 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>
```

Form Validation Classes

- .is-valid - styles a valid form control
- .is-invalid - styles an invalid form control
- .valid-feedback - styles the feedback for a valid form control
- .invalid-feedback - styles the feedback for an invalid form control

Example

```
<form class="row g-3 needs-validation" novalidate>
  <div class="col-md-4">
    <label for="validationCustom01" class="form-label">First name</label>
    <input type="text" class="form-control" id="validationCustom01" value="Mark" required>
    <div class="valid-feedback">
      Looks good!
    </div>
  </div>
  <div class="col-md-4">
    <label for="validationCustom02" class="form-label">Last name</label>
    <input type="text" class="form-control" id="validationCustom02" value="Otto" required>
    <div class="valid-feedback">
      Looks good!
    </div>
  </div>
  <div class="col-md-4">
    <label for="validationCustomUsername" class="form-label">Username</label>
    <div class="input-group has-validation">
      <span class="input-group-text" id="inputGroupPrepend">@</span>
```

```

<div class="input-group">
  <input type="text" id="inputGroupPrepend" aria-describedby="validationCustomUsername" required>
  <div class="invalid-feedback">
    Please choose a username.
  </div>
</div>
<div class="col-12">
  <button class="btn btn-primary" type="submit">Submit form</button>
</div>
</form>

```

Dark Mode in Bootstrap 5

Introduction

Bootstrap 5 provides built-in support for dark mode using the `data-bs-theme` attribute. This allows developers to easily switch between light and dark themes.

Enabling Dark Mode

To enable dark mode, add the `data-bs-theme="dark"` attribute to the `<html>` or `<body>` tag.

Example

```

<!doctype html>
<html lang="en" data-bs-theme="dark">
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Dark Mode Example</title>
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet">
</head>
<body>
  <div class="container">
    <h1 class="text-light">Welcome to Dark Mode</h1>
    <p class="text-secondary">This is an example of Bootstrap 5 dark mode.</p>
  </div>
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>

```

Switching Themes Dynamically

You can dynamically switch between light and dark themes using JavaScript by toggling the `data-bs-theme` attribute.

Example

```

<button id="themeToggle" class="btn btn-primary">Toggle Theme</button>

<script>
  const toggleButton = document.getElementById('themeToggle');
  toggleButton.addEventListener('click', () => {
    document.documentElement.setAttribute(
      'data-bs-theme',
      document.documentElement.getAttribute('data-bs-theme') === 'dark' ? 'light' : 'dark'
    );
  });
</script>

```

Dark Mode Utilities

Bootstrap 5 includes utility classes that adapt to dark mode automatically:

- **Text Colors:** `.text-light`, `.text-dark`
- **Background Colors:** `.bg-light`, `.bg-dark`
- **Border Colors:** `.border-light`, `.border-dark`

Example

```

<div class="p-3 bg-dark text-light border border-light">
  This is a dark-themed container.
</div>

```

Notes

- Ensure all components and custom styles are tested in both light and dark modes.
- Use the `data-bs-theme` attribute for consistent theme switching across your application.
- Dark mode improves accessibility and reduces eye strain in low-light environments.
- for specific components dark model enable when only use `data-bs-theme` in that component outer layer tag