

# Bootstrap

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# Bootstrap Introduction

Bootstrap is a free and open-source CSS framework designed for

- Easy to use
- Responsive Features
- Mobile First Approach
- Browser Compatibility

# Bootstrap Versions

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v1 to v5

Difference between Bootstrap 5 vs Bootstrap 3 and 4

Bootstrap 5 uses the Vanilla JavaScript instead of JQuery

# How to start with Bootstrap

## Websites:

- [www.getbootstrap.com](http://www.getbootstrap.com)
- [www.w3school.com](http://www.w3school.com)

## Two ways to start with Bootstrap

- CDN (Content Delivery Network)
- Download Bootstrap from [getbootstrap.com](http://getbootstrap.com)

# Responsive Web Design

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Responsive web design is about creating websites which automatically adjust themselves to look good on all devices from smartphones to large desktops

# Program Structure : Responsive meta tag

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
  <head>
```

```
    <title> Bootstrap start</title>
```

```
    <meta charset="utf-8">
```

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

```
    <!-- CDN Links -->
```

```
    <link>
```

```
    <script></script>
```

```
  </head>
```

```
  <body>
```

# Containers

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**container** : Responsive fixed width container

**container-fluid** : A full width container, spanning the entire width of the viewport

Note: width is always 100%

# Typography Classes

h1 to h6

mark

text-start

text-center

text-end

text-lowercase

text-uppercase

text-capitalize



# Text, background, border and button colors

## Text Colors:

.text-primary  
.text-success  
.text-info  
.text-warning  
.text-danger  
.text-secondary  
.text-white  
.text-dark  
.text-body  
.text-light

## Background

.bg-primary  
.bg-success  
.bg-info  
.bg-warning  
.bg-danger  
.bg-secondary  
.bg-dark  
.bg-light

## Border

.border-primary  
.border-success  
.border-info  
.border-warning  
.border-danger  
.border-secondary  
.border-dark  
.border-light

## Button

.button-primary  
.button-success  
.button-info  
.button-warning  
.button-danger  
.button-secondary  
.button-dark  
.button-light

# Utilities or Helper classes

rounded

rounded-top

rounded-end

rounded-bottom

rounded-start

rounded-circle

rounded-pill

rounded-0

rounded-1

rounded-2

rounded-3

width

.w-25

.w-50

.w-75

.w-100

.w-auto

.mw-100

height

.h-25

.h-50

.h-75

.h-100

.h-auto

.mh-100

# Breakpoints, Margin and Padding utility classes

Bootstrap 5 has a wide range of responsive margin and padding utility classes.

They work for all breakpoints:

xs ( $\leq 576\text{px}$ ),

sm ( $\geq 576\text{px}$ ),

md ( $\geq 768\text{px}$ ),

lg ( $\geq 992\text{px}$ ),

xl ( $\geq 1200\text{px}$ ) or

xxl ( $\geq 1400\text{px}$ )

# Margin and Padding utility classes

The classes are used in the format:

`{property}{sides}-{size}` for `xs` and

`{property}{sides}-{breakpoint}-{size}` for

`sm, md, lg, xl` and `xxl`

Property are: `m` - margin, `p` - padding

Where side is one of

`t` - margin-top or padding-top

`b` - margin-bottom or padding-bottom

`s` - margin-start or padding-start

`e` - margin-end or padding-end

`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

# Shadow classes

We use shadow- classes to add shadows to an element

shadow-none p-4 mb-4 bg-light

shadow-sm p-4 mb-4 bg-white

shadow p-4 mb-4 bg-white

shadow-lg p-4 mb-4 bg-white

# Tables

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

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-borderless` class removes borders from the table:

The `.table-hover` class adds a hover effect 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-sm` class makes the table smaller by cutting cell padding in half

Table color classes like `table-primary`, `table-success`, `table-secondary` etc

Table header color `<thead class="table-dark">`

# Responsive Table

The `.table-responsive` class adds a scrollbar to the table when needed (when it is too big horizontally)

You can also decide when the table should get a scrollbar, depending on the screen width:

Class	Screen width
<code>.table-responsive-sm</code>	< 576px
<code>.table-responsive-md</code>	< 768px
<code>.table-responsive-lg</code>	< 992px
<code>.table-responsive-xl</code>	< 1200px
<code>.table-responsive-xxl</code>	< 1400px

# List group

- Basic list group is unordered list with list items
- To create a basic list group, use an `<ul>` element with class `.list-group`, and `<li>` elements with class `.list-group-item`
- Use the `.active` class to highlight the current item
- List group with linked items: `.list-group-item-action`
- The `.disabled` class adds a lighter text color to the disabled item
- `.list-group-numbered` class to create list items with numbers in front of them
- `.list-group-horizontal` class to `.list-group` - display horizontally instead of vertically
- Colors: `list-group-item-success`, `list-group-item-primary` etc



# Buttons

How to create button: `<button type="button" class="btn">Basic</button>`

Different style of buttons

The button classes can be used on `<a>`, `<button>`, or `<input>` elements

Button outline

Button sizes: `.btn-lg`

Block level button: To create a block level button that spans the entire width of the parent element, use the `.d-grid` "helper" class on the parent element

Active or Disabled buttons

Button Groups:

Size for button group

Vertical button group

Button groups side by side

Nested button groups and Dropdown Menus

# Badges

- Badges are used to add additional information to any content

- `.badge` class together with a contextual class (like `.bg-secondary`) within `<span>` elements to create rectangular badges.

- Pill Badges - `.rounded-pill`

- Badge inside an element

# Images

.rounded: The .rounded class adds rounded corners to an image

.rounded-circle: The .rounded-circle class shapes the image to a circle:

.img-thumbnail: The .img-thumbnail class shapes the image to a thumbnail (bordered):

# 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 or .alert-dark

```
<div class=".alert alert-success">
```

```
  <strong>Success!</strong> Indicates a successful or positive action.
```

```
</div>
```

# Cards

A card in Bootstrap 5 is a bordered box with some padding around its content. It includes options for headers, footers, content, colors, etc.

A basic card is created with the `.card` class, and content inside the card has a `.card-body` class:

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

The `.card-header` class adds a heading to the card and the `.card-footer` class adds a footer to the card also we can add contextual color

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

# Dropdown

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

The `.dropdown` class indicates a dropdown menu.

To open the dropdown menu, use a button or a link with a class of `.dropdown-toggle` and the `data-bs-toggle="dropdown"` attribute.

Dropdown Divider

Dropdown Header

Disable and active items

Dropdown positions

## Nav Menus

If you want to create a simple horizontal menu, add the `.nav` class to a `<ul>` element, followed by `.nav-item` for each `<li>` and add the `.nav-link` class to their links:

Aligned Nav: Add the `.justify-content-center` class to center the nav, and the `.justify-content-end` class to right-align the nav.

# Navigation Bar

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

Basic Navbar

Vertical Navbar

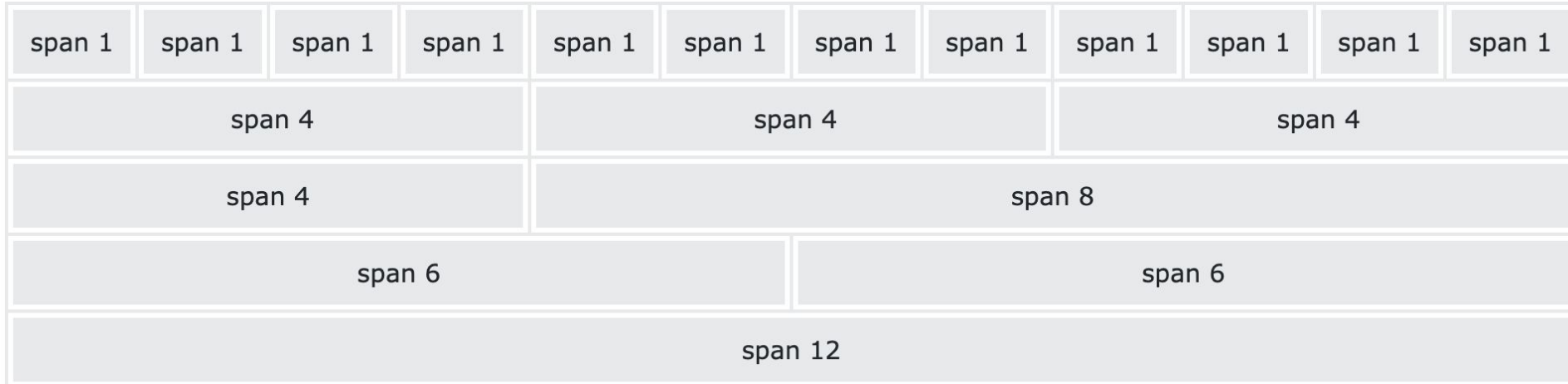
Centered Navbar

Colored Navbar



# Grid System

- Grid System allows upto 12 columns across the page
- We can either use 12 columns individually as per our requirements
- We can group the columns together to create wider columns
- The grid system is responsive and the column will re-arrange automatically depending on the screen size



# Basic Structure of Grid

```
<!-- Control the column width, and how they should appear on different devices -->
```

```
<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>
```

- 1st \* represents the responsiveness: sm, md, lg, xl, or xxl
- 2nd \* represents a number which should be upto 12 for each row

```
<!-- Or let Bootstrap automatically handle the layout -->
```

```
<div class="row">
  <div class="col"></div>
  <div class="col"></div>
  <div class="col"></div>
</div>
```