

Bootstrap 5

1. What is Bootstrap?

- Bootstrap is a free front-end framework for faster and easier web development
- Bootstrap 5 is the newest version of Bootstrap, which is the most popular HTML, CSS, and JavaScript framework for creating responsive, mobile-first websites.
- The main differences between Bootstrap 5 and Bootstrap 3 & 4, is that Bootstrap 5 has switched to **JavaScript instead of jQuery**.

2. Why Use Bootstrap?

Advantages of Bootstrap:

- Easy to use
- Responsive features
- Mobile-first approach
- Browser compatibility

3. Containers

- Bootstrap 5 also requires a containing element to wrap site contents.
- There are two container classes to choose from:
 - The **.container** class provides a responsive **fixed width** container
 - The **.container-fluid** class provides a **full width** container, spanning the entire width of the viewport
- **Container Padding**: By default, containers have left and right padding, with no top or bottom padding. For example, **.pt-5** means "add a large top padding" & **.pb-5** for padding-bottom.

4. Container Border and Color

```
<div class="container p-5 my-5 bg-primary text-white"></div>
```

- p-5 - Padding
- my-5 - Margin
- bg-Primary - Background with blue color (e.g., secondary, success, danger, etc.).
- Text-white - text color

- 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`.

Primary
Success
Danger
Info
Warning
Active
Secondary
Light

5. Responsive Container

`.container-sm` | `md` | `lg` | `xl` classes to determine when the container should be responsive.

- sm- small
- md-medium
- lg-large
- xl-Extra Large
- xxl- Extra Extra Large

6. Bootstrap 5 Grids

- Bootstrap's grid system is built with flexbox and allows up to 12 columns across the page.
- **Grid Classes:** Specify different column widths for different screen sizes using predefined classes like `.col-sm`, `.col-md`, `.col-lg`, and `.col-xl`.
For Example: `<div class="col-sm-3">.col-sm-3</div>`
- **Two Unequal Responsive Columns**

```

<div class="row">
  <div class="col-sm-4">.col-sm-4</div>
  <div class="col-sm-8">.col-sm-8</div>
</div>

```

7. Bootstrap 5 Text/Typography

- Bootstrap 5 uses a default font-size of 1rem (16px by default), and its line-height is 1.5.
- `<p>` elements have margin-top: 0 and margin-bottom: 1rem (16px by default).
- For Example: `<p class="h1">h1 Bootstrap heading</p>`
- Display headings are used to stand out more than normal headings (`<h1 class="display-1">Display 1</h1>`)
- Use the mark element (or the .mark class) to `<mark>highlight</mark>` text.
- `<abbr>`
 - `<p>The <abbr title="World Health Organization">WHO</abbr> was founded in 1948.</p>`
 - Output : The WHO was founded in 1948.
- `.blockquote` class to a `<blockquote>` when quoting blocks of content from another source. And when naming a source, like "from WWF's website", use the `.blockquote-footer` class.
- `<dl>` - Description Lists
- `<code>` - `<p>The following HTML elements: <code>span</code>, <code>section</code>, and <code>div</code> defines a section in a document.</p>`
- `<kbd>` - Indicates Keyboard Inputs (Ctrl+p)

Class	Description
<code>.lead</code>	Makes a paragraph stand out
<code>.text-start</code>	Indicates left-aligned text
<code>.text-break</code>	Prevents long text from breaking layout
<code>.text-center</code>	Indicates center-aligned text
<code>.text-decoration-none</code>	Removes the underline from a link
<code>.text-end</code>	Indicates right-aligned text
<code>.text-nowrap</code>	Indicates no wrap text
<code>.text-lowercase</code>	Indicates lowercased text
<code>.text-uppercase</code>	Indicates uppercased text
<code>.text-capitalize</code>	Indicates capitalized text
<code>.initialism</code>	Displays the text inside an <code><abbr></code> element in a slightly smaller font size
<code>.list-unstyled</code>	Removes the default list-style and left margin on list items (works on both <code></code> and <code></code>). This class only applies to immediate children list items (to remove the default list-style from any nested lists, apply this class to any nested lists as well)
<code>.list-inline</code>	Places all list items on a single line (used together with <code>.list-inline-item</code> on each <code></code> elements)

8. Bootstrap 5 Tables

```
<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>.....
```

- `<table class="table table-striped">` - The **.table-striped** class adds zebra-stripes to a table
- **.table-bordered** class adds borders on all sides of the table and cells
- **.table-hover** class adds a hover effect (grey background color) on table rows
- **.table-responsive** class adds a scrollbar to the table when needed

9. Bootstrap 5 Images



- ``
- ``
- ``

Aligning Images

- Float an image to the left with the **.float-start** class or to the right with **.float-end**

Centered Image

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

Responsive Images

- Create responsive images by adding an **`.img-fluid`** class to the `` tag.

10. Bootstrap 5 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`.**
- **Alert Links:** Add the `.alert-link` class to any links inside the alert box to create "matching colored links"
- **Animated Alerts:** The `.fade` and `.show` classes adds a fading effect when closing the alert message

11. Bootstrap 5 Buttons

- `<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>`
- `Link Button`
- `<button type="button" class="btn btn-outline-primary">Primary</button>`
- `<button type="button" class="btn btn-primary btn-lg">Large</button>`
- **Block Level Buttons:** 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
- To Control the space between buttons: `<div class="d-grid gap-2">`
- **Active/Disabled Buttons:** The class `.active` makes a button appear pressed, and the `disabled` attribute makes a button unclickable.
- **Spinner Buttons:**
`<button class="btn btn-primary">`
``
`</button>`
- **Button Groups :** to group a series of buttons together
`<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>

```

12. Bootstrap 5 Badges

- Use the .badge class together with a contextual class (like .bg-secondary) within elements to create rectangular badges
- <h1>Example heading New</h1>

- **Badge inside an Element :**

```

<button type="button" class="btn btn-primary">
  Messages <span class="badge bg-danger">4</span>
</button>

```

13. Basic Progress Bar

```

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

```

14. Bootstrap 5 Spinners

- To create a spinner/loader, use the .spinner-border class
- <div class="spinner-border"></div>

15. Bootstrap 5 Pagination

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



-

```

<ul class="pagination">
  <li class="page-item"><a class="page-link" href="#">Previous</a></li>
  <li class="page-item"><a class="page-link" href="#">1</a></li>
  <li class="page-item"><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>

```

- **Breadcrumbs:** Another form for pagination, is breadcrumbs

The `.breadcrumb` and `.breadcrumb-item` classes indicates the current page's location within a navigational hierarchy:

16. Basic List Groups

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

17. Bootstrap 5 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

Basic Card:

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

Card Images:

```
<div class="card" style="width:400px">
  
  <div class="card-body">
    <h4 class="card-title">John Doe</h4>
    <p class="card-text">Some example text.</p>
    <a href="#" class="btn btn-primary">See Profile</a>
  </div>
</div>
```



18. Basic Dropdown

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

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

19. Basic Collapsible

Collapsibles are useful when you want to hide and show large amount of content

Example:

```
<button data-bs-toggle="collapse" data-bs-target="#demo">Collapsible</button>
<div id="demo" class="collapse">
  Lorem ipsum dolor text....
</div>
```

20. Bootstrap 5 Navs

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

```
<ul class="nav">
  <li class="nav-item">
    <a class="nav-link" href="#">Link</a>
  </li>
  <li class="nav-item">
    <a class="nav-link" href="#">Link</a>
  </li>
  <li class="nav-item">
```



```

    <a class="nav-link" href="#">Link</a>
  </li>
  <li class="nav-item">
    <a class="nav-link disabled" href="#">Disabled</a>
  </li>
</ul>

```

21. Nav Bar

```

<nav class="navbar navbar-expand-sm bg-light">
  <div class="container-fluid">
    <!-- 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>
  </div>
</nav>

```

22. Carousel / Slideshow

The Carousel is a slideshow for cycling through elements:

```

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

```

```

    
  </div>
  <div class="carousel-item">
    
  </div>
</div>

```

23. Tooltips

The Tooltip component is small pop-up box that appears when the user moves the mouse pointer over an element:

```

<button type="button" class="btn btn-primary" data-bs-toggle="tooltip" title="Hooray!">Hover
over me!</button>

```

Tooltips must be initialized with JavaScript to work.

```

<script>
var tooltipTriggerList = [].slice.call(document.querySelectorAll('[data-bs-toggle="tooltip"]'))
var tooltipList = tooltipTriggerList.map(function (tooltipTriggerEl) {
  return new bootstrap.Tooltip(tooltipTriggerEl)
})
</script>

```

24. Scrollspy

Scrollspy is used to automatically update links in a navigation list based on scroll position.

```

<body data-bs-spy="scroll" data-bs-target=".navbar" data-bs-offset="50">
<nav class="navbar navbar-expand-sm bg-dark navbar-dark fixed-top">
  <ul class="navbar-nav">
    <li><a href="#section1">Section 1</a></li>
  </ul>
</nav>
<div id="section1">
  <h1>Section 1</h1>
  <p>Try to scroll this page and look at the navigation bar while scrolling!</p>
</div>
</body>

```

25. Offcanvas

- Offcanvas is similar to modals (hidden by default and shown when activated), except that it is often used as a sidebar navigation menu.
- The .offcanvas class creates the offcanvas sidebar.
- The .offcanvas-start class positions the offcanvas, and makes it 400px wide. See examples below for more positioning classes.
- The .offcanvas-title class ensures proper margins and line-height.

26. Utilities

Bootstrap 5 has a lot of utility/helper classes to quickly style elements without using any CSS code.

```
<span class="border"></span>
```

```
<span class="border border-0"></span>
```

Responsive Floats: `<div class="float-sm-end">Float right on small screens or wider</div>
`

27. Dark Mode

By default, bootstrap pages have a white (light) background color.

If you want to change the whole page to a darker color, you can add `data-bs-theme="dark"` to the `<html>` element:

For Example: `<table class="table" data-bs-theme="dark">`

28. Flex

The biggest difference between Bootstrap 3 and Bootstrap 4 & 5 is that Bootstrap 5 now uses flexbox, instead of floats, to handle the layout.

To create a flexbox container and to transform direct children into flex items, use the d-flex class:

```
<div class="d-flex p-3 bg-secondary text-white">
```

```
  <div class="p-2 bg-info">Flex item 1</div>
```

```
  <div class="p-2 bg-warning">Flex item 2</div>
```

```
  <div class="p-2 bg-primary">Flex item 3</div>
```

```
</div>
```