Full Stack Development Using Javascript-1

Unit-7 Bootstrap-5

Bootstrap 5 (released 2021) is the newest version of Bootstrap (released 2013); with new components, faster stylesheet and more responsiveness.

Bootstrap 5 supports the latest, stable releases of all major browsers and platforms. However, Internet Explorer 11 and down is not supported.

The main differences between Bootstrap 5 and Bootstrap 3 & 4, is that Bootstrap 5 has switched to vanilla JavaScript instead of jQuery.

Bootstrap 4 VS Bootstrap 5

BASIS OF	BOOTSTRAP 4	BOOTSTRAP 5
Grid System	It has 5 tier (xs, sm, md, lg, xl).	It has 6 tier (xs, sm, md, lg, xl, xxl).
Jquery	It has jquery and all related plugins.	Jquery is removed and switched to vanilla JS with some working plugins
Internet Explorer	Bootstrap 4 supports both IE 10 and 11.	Bootstrap 5 doesn't support IE 10 and 11.
Form elements	Radio buttons, checkboxes have different look in different OS and browsers. The form uses whatever default browsers provide.	The look of form elements will not change, on different OS or browser. The forms can be customized and form controls can be added, they would not depend on browser.
Jumbotron	It supports.	It doesn't support jumbotron.

7.1 Navs: Nav Menu, Tabs

Simple Navigation

Classes

.nav - Specified to take navigation as outer body. Generally, to set in <ul> tag.
.nav-item – Placed in <li> tag to denote navigation.

.nav-link – Placed in <a> tag and denotes link.

Example

```
<html>
<head>
 <title>Bootstrap 5 Example</title>
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css"
rel="stylesheet">
 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js">
</script>
</head>
<body>
        <h3>simple navigation</h3>
        <div class="container mt-5">
                <ul class="nav">
                        <li class="nav-item">
                                <a href="#" class="nav-link">HOME</a>
                        </li>
                        <li class="nav-item">
                                <a href="#" class="nav-link">ABOUT</a>
                        </li>
                        <li class="nav-item">
                                <a href="#" class="nav-link">CONTACT</a>
                        </li>
                </ul>
        </div>
```

```
</body>
</html>
```

Output

simple navigation

HOME   ABOUT   CONTACT

Disabled Link

Example

```
<html>
<head>
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css"
rel="stylesheet">
 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js">
</script>
</head>
<body>
        <h3>Disabled link</h3>
        <div class="container mt-5">
                <ul class="nav">
                        <li class="nav-item">
                                <a href="#" class="nav-link">HOME</a>
                        </li>
                        <li class="nav-item">
                                <a href="#" class="nav-link">ABOUT</a>
                        </li>
                        <li class="nav-item">
                                <a href="#" class="nav-link disabled">CONTACT</a>
```

```
                                </li>

                        </ul>

                </div>

        </body>

</html>
```

Output

Disabled link

HOME   ABOUT   CONTACT

<u>Alignment of Nav</u>

-   justify-content-center
-   justify-content-end

Example

```
<html>

<head>

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

 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css"
rel="stylesheet">

 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js">
</script>

</head>

<body>

<h3>Center aligned</h3>

        <div class="container mt-5">

                <ul class="nav justify-content-center">

                        <li class="nav-item">

                                <a href="#" class="nav-link">HOME</a>

                        </li>

                        <li class="nav-item">

                                <a href="#" class="nav-link">ABOUT</a>
```

```
                        </li>
                        <li class="nav-item">
                                <a href="#" class="nav-link">CONTACT</a>
                        </li>
                </ul>
        </div>
</body>
</html>
```

Output

Center aligned

HOME   ABOUT   CONTACT

Vertical Navigation

Class .flex-column used in <ul> tag

Note: Alignment will not work.

Example

```
<html>
<head>
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet">
 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<h3>vertical navigation</h3>
        <div class="container mt-5">
                <ul class="nav flex-column">
                        <li class="nav-item">
                                <a href="#" class="nav-link">HOME</a>
                        </li>
```

```
                    <li class="nav-item">

                            <a href="#" class="nav-link">ABOUT US</a>

                    </li>

                    <li class="nav-item">

                            <a href="#" class="nav-link">CONTACT US</a>

                    </li>

            </ul>

        </div>

</body>

</html>
```

Output

vertical navigation

HOME

ABOUT US

CONTACT US

Tabs

Class = "nav-tabs"

Example

```
<html>

<head>

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

 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css"
rel="stylesheet">

 <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script
>

</head>

<body>

        <div class="container mt-5">

                <ul class="nav nav-tabs">

                        <li class="nav-item">

                                <a href="#" class="nav-link">HOME</a>
```
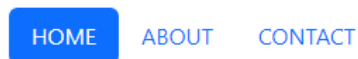
```
            </li>
            <li class="nav-item">
                <a href="#" class="nav-link">ABOUT</a>
            </li>
            <li class="nav-item">
                <a href="#" class="nav-link">CONTACT</a>
            </li>
        </ul>
    </div>
</body>
</html>
```

Output

HOME   ABOUT   CONTACT

Pills

Class = "nav-pills". Link with active class will be shown in blue background

Example

```
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
    <div class="container mt-5">
        <ul class="nav nav-pills">
            <li class="nav-item">
                <a href="#" class="nav-link active">HOME</a>
            </li>
```

```html
            <li class="nav-item">
                <a href="#" class="nav-link">ABOUT</a>
            </li>
            <li class="nav-item">
                <a href="#" class="nav-link">CONTACT</a>
            </li>
        </ul>
    </div>
</body>
</html>
```

Output

HOME   ABOUT   CONTACT

Dynamic/Togglable tabs

Classes

.tab-content – used in second <div> tag for contents to be open

.nav-tabs – used in <ul> tag

Attribute

Data-bs-toggle = "tab" used as attribute of <a> tag

Example

```html
<html>
<head>
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css"
rel="stylesheet">
 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js">
</script>
</head>
<body>
    <div class="container mt-5">
        <ul class="nav nav-tabs">
            <li class="nav-item">
```

```html
                    <a href="#demo" class="nav-link active" data-bs-toggle="tab">HOME</a>
                </li>
                <li class="nav-item">
                    <a href="#demo2" class="nav-link" data-bs-toggle="tab">ABOUT</a>
                </li>
                <li class="nav-item">
                    <a href="#demo3" class="nav-link" data-bs-toggle="tab">CONTACT</a>
                </li>
            </ul>
        </div>
    <div class="tab-content">
            <div id="demo" class="container tab-pane active">
            <h3>HOME</h3>
            <p>This is home page</p>
        </div>
            <div id="demo2" class="container tab-pane fade">
            <h3>ABOUT</h3>
            <p>This is about us page</p>
        </div>
            <div id="demo3" class="container tab-pane fade">
            <h3>CONTACT</h3>
            <p>This is contact us page</p>
        </div>
        </div>
    </div>
</body>
</html>
```
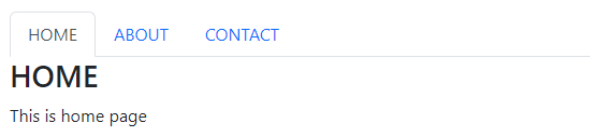
Output

| HOME | ABOUT | CONTACT |

HOME

This is home page

Dynamic/Togglable pills

Classes

.tab-content – used in second <div> tag for contents to be open

.nav-pills – used in <ul> tag

Attribute

data-bs-toggle = "pill" used as attribute of <a> tag

Example

```
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css"
rel="stylesheet">
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
      <div class="container mt-5">
            <ul class="nav nav-pills">
                  <li class="nav-item">
                        <a href="#dem" class="nav-link active" data-bs-
toggle="pill">HOME</a>
                  </li>
                  <li class="nav-item">
                        <a href="#dem2" class="nav-link" data-bs-
toggle="pill">ABOUT</a>
                  </li>
                  <li class="nav-item">
                        <a href="#dem3" class="nav-link" data-bs-
toggle="pill">CONTACT</a>
                  </li>
            </ul>
      </div>
      <div class="tab-content">
```
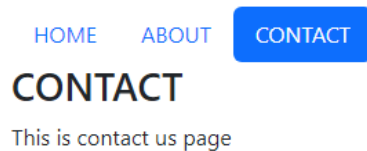
```html
        <div id="dem" class="container tab-pane active">
                <h3>HOME</h3>
                <p>This is home page</p>
        </div>
        <div id="dem2" class="container tab-pane fade">
                <h3>ABOUT</h3>
                <p>This is about us page</p>
        </div>
        <div id="dem3" class="container tab-pane fade">
                <h3>CONTACT</h3>
                <p>This is contact us page</p>
        </div>
    </div>
</body>
</html>
```

Output

Dropdown

Classes

.dropdown – used in <li> tag

.dropdown-toggle – used in <a> tag to set items in dropdown

.dropdown-menu

.dropdown-item

Attribute

Data-bs-toggle = "dropdown" used as attribute of <a> tag

Example

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

```html
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css"
rel="stylesheet">

  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js">
</script>

</head>

<body>

        <div class="container mt-5">

                <ul class="nav nav-tabs">

                        <li class="nav-item">

                                <a href="#" class="nav-link active">HOME</a>

                        </li>

                        <li class="nav-item">

                                <a href="#" class="nav-link">ABOUT</a>

                        </li>

                        <li class="nav-item dropdown">

                                <a href="#" class="nav-link dropdown-toggle" data-bs-
toggle="dropdown">CONTACT</a>

                                <ul class="dropdown-menu">

                                        <li><a href="#" class="dropdown-
item">Address</a></li>

                                        <li><a href="#" class="dropdown-item">Phone
number</a></li>

                                </ul>

                        </li>

                </ul>

        </div>

</body>

</html>
```
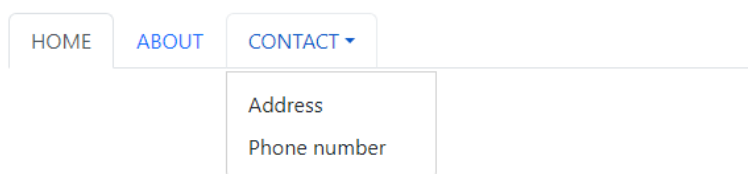
Output

Navbar

Basic Navbar

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

Classes

.navbar - A standard navigation bar is created with this class

.navbar-expand - responsive collapsing classes xxl, xl, lg, md, sm

To add links inside the navbar, use either an <ul> element (or a <div>) with class="navbar-nav". Then add <li> elements with a .nav-item class followed by an <a> element with a .nav-link class

NOTE: To add white text color to all links in navbar use ".navbar-dark" class. To add black color use ".navbar-light" class.

Example

<html>

<head>

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

 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet">

 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

<nav class="navbar navbar-expand-sm bg-dark navbar-dark">

 <div class="container-fluid">

  <ul class="navbar-nav">

   <li class="nav-item">

    HOME

   <li class="nav-item">

    ABOUT US

   <li class="nav-item">

    CONTACT US


```
    </ul>
   </div>
</nav>


<div class="container-fluid mt-3">
  <h3>Basic Navbar Example</h3>
  <p>A navigation bar is a navigation header that is placed at the top of the page.</p>
</div>
</body>
</html>
```

Output

HOME   ABOUT US   CONTACT US

Basic Navbar Example

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

Vertical Navbar

Remove the .navbar-expand-* class to create a navigation bar that will always be vertical.

Example

```
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link        href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<nav class="navbar navbar-light">
  <div class="container-fluid">
    <ul class="navbar-nav">
      <li class="nav-item">
```

```
      <a class="nav-link" href="#">HOME</a>
    </li>
    <li class="nav-item">
      <a class="nav-link" href="#">ABOUT US</a>
    </li>
    <li class="nav-item">
      <a class="nav-link" href="#">CONTACT US</a>
    </li>
  </ul>
 </div>
</nav>


<div class="container-fluid mt-3">
 <h3>Vertical Navbar Example</h3>
</div>
</body>
</html>
```

Output

HOME

ABOUT US

CONTACT US

Vertical Navbar Example

Colored Navbar

Use any of the .bg-color classes to change the background color of the navbar (.bg-primary, .bg-success, .bg-info, .bg-warning, .bg-danger, .bg-secondary, .bg-dark and .bg-light)

Example

```html
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<nav class="navbar navbar-expand-sm bg-primary navbar-dark">
  <div class="container-fluid">
   <ul class="navbar-nav">
    <li class="nav-item">
     <a class="nav-link" href="#">HOME</a>
    </li>
    <li class="nav-item">
     <a class="nav-link" href="#">ABOUT US</a>
    </li>
    <li class="nav-item">
     <a class="nav-link" href="#">CONTACT US</a>
    </li>
   </ul>
  </div>
</nav>
<div class="container-fluid mt-3">
</div>
</body>
</html>
```
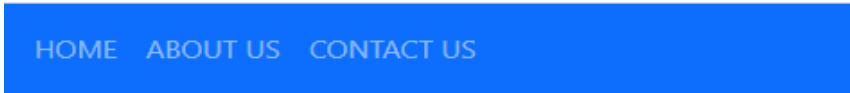
Output

Brand/Logo

The .navbar-brand class is used to highlight the brand/logo/project name of your page

Example

<html>

<head>

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

 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet">

 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

<nav class="navbar navbar-expand-sm bg-dark navbar-dark">

                <div class="container-fluid">

                    <ul class="navbar-nav">

                        <li class="nav-item">

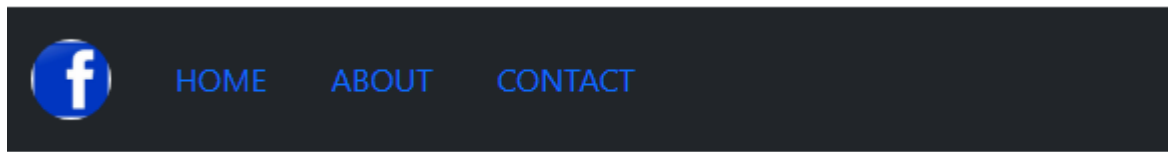   <img src="f.jfif" style="width:40px" class="rounded-pill">

                        <li class="nav-item">

                            HOME

                        <li class="nav-item">

                            ABOUT

                        <li class="nav-item">

                            CONTACT

                </div>

        </nav>

</body>

</html>

Output

Collapsible Navbar

Example

```
<html>

<head>

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

 <link        href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css"
rel="stylesheet">

 <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

<h3>collapsible bar</h3>

        <nav class="navbar navbar-expand-sm bg-dark navbar-dark">

            <div class="container-fluid">

                        <button class="navbar-toggler" data-bs-toggle="collapse" data-
bs-target="#link">

                            <span class="navbar-toggler-icon">

                            </span>

                        </button>

                    <div class="collapse navbar-collapse" id="link">

                        <ul class="navbar-nav">

                        <li class="nav-item">

                            <a href="#" class="nav-link">HOME</a>

                        </li>

                        <li class="nav-item">

                            <a href="#" class="nav-link">ABOUT</a>

                        </li>

                        <li class="nav-item">

                            <a href="#" class="nav-link">CONTACT</a>
```
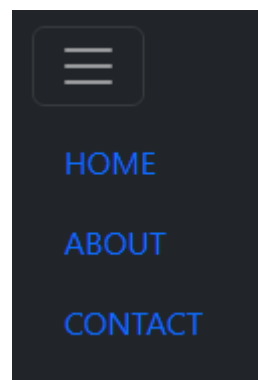
```
                              </li>

                          </ul>

                  </div>

              </div>

      </nav>

</body>

</html>
```

Output

collapsible bar

HOME   ABOUT   CONTACT

☰

HOME

ABOUT

CONTACT

Dropdown

Example

```html
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<nav class="navbar navbar-expand-sm bg-dark navbar-dark">
  <div class="container-fluid">
   <ul class="navbar-nav">
    <li class="nav-item">
     <a class="nav-link" href="#">HOME</a>
    </li>
    <li class="nav-item">
     <a class="nav-link" href="#">ABOUT US</a>
    </li>
    <li class="nav-item dropdown">
        <a href="#" class="nav-link dropdown-toggle" data-bs-toggle="dropdown">CONTACT</a>
        <ul class="dropdown-menu">
                <li><a href="#" class="dropdown-item">Address</a></li>
                <li><a href="#" class="dropdown-item">Phone number</a></li>
        </ul>
   </ul>
  </div>
</nav>
</div>
</body>
</html>
```

Output

Carousel

The Carousel is a slideshow for cycling through elements

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

Example

```
<html>
<head>
 <title>Bootstrap 5 Example</title>
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet">
 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
        <h3>Carousel Slideshow</h3>
        <div id="demo" class="carousel slide" data-bs-ride="carousel">
        <div class="carousel-indicators">
                <button data-bs-target="#demo" data-bs-slide-to="0" class="active bg-warning"></button>
                <button data-bs-target="#demo" data-bs-slide-to="1" class="bg-warning"></button>
                <button data-bs-target="#demo" data-bs-slide-to="2" class="bg-warning"></button>
        </div>

        <div class="carousel-inner">
                <div class="carousel-item active">
                <img src="1.jpg" style="width:100%; height:300px">
                </div>
                <div class="carousel-item">
                <img src="2.jpg" style="width:100%; height:300px">
                </div>
                <div class="carousel-item">
                <img src="3.jpg" style="width:100%; height:300px">
                </div>
        </div>
```

```html
            <button class="carousel-control-prev bg-success" data-bs-target="#demo" data-bs-slide="prev">

                <span class="carousel-control-prev-icon"></span>

            </button>

            <button class="carousel-control-next bg-success" data-bs-target="#demo" data-bs-slide="next">

                <span class="carousel-control-next-icon"></span>

            </button>

</body>

</html>
```
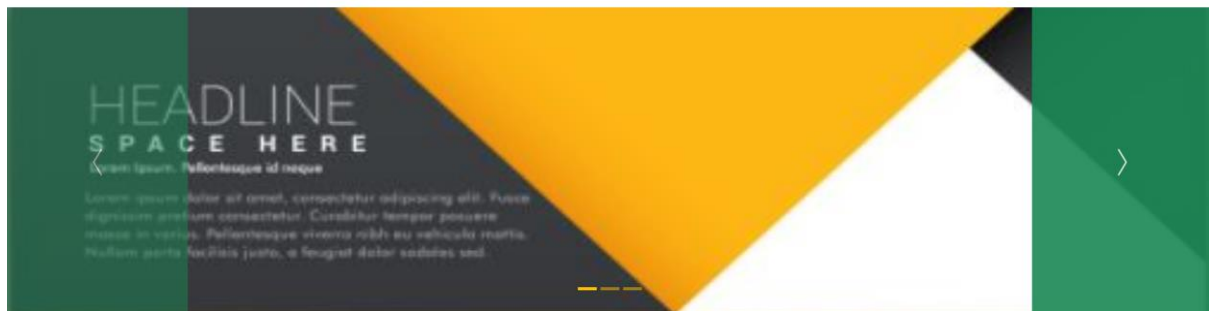
Output

Carousel Slideshow

Add Caption

Example

```html
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>


<!-- Carousel -->
<div id="demo" class="carousel slide" data-bs-ride="carousel">
  <!-- Indicators/dots -->
  <div class="carousel-indicators">
    <button type="button" data-bs-target="#demo" data-bs-slide-to="0" class="active"></button>
    <button type="button" data-bs-target="#demo" data-bs-slide-to="1"></button>
    <button type="button" data-bs-target="#demo" data-bs-slide-to="2"></button>
  </div>


  <!-- The slideshow/carousel -->
  <div class="carousel-inner">
    <div class="carousel-item active">
      <img src="ahm.jfif" alt="AHMEDABAD" class="d-block" style="width:100%; height:50%">
      <div class="carousel-caption">
       <h3>AHMEDABAD</h3>
       <p>We had such a great time at historical places</p>
      </div>
    </div>
    <div class="carousel-item">
```

```html
    <img src="gn.jfif" alt="Gandhinagar" class="d-block" style="width:100%; height:50%">
    <div class="carousel-caption">
      <h3>Gandhinagar</h3>
      <p>AKSHARDHAM TEMPLE</p>
    </div>
  </div>
 </div>


 <!-- Left and right controls/icons -->
 <button class="carousel-control-prev" type="button" data-bs-target="#demo" data-bs-slide="prev">
   <span class="carousel-control-prev-icon"></span>
 </button>
 <button class="carousel-control-next" type="button" data-bs-target="#demo" data-bs-slide="next">
   <span class="carousel-control-next-icon"></span>
 </button>
</div>
</body>
</html>
```

Output

Modal

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

Components of modal – Header, Body, Footer

Classes

.modal

.modal-dialog

.modal-content

.modal- header

.modal-body

.modal-footer

Example
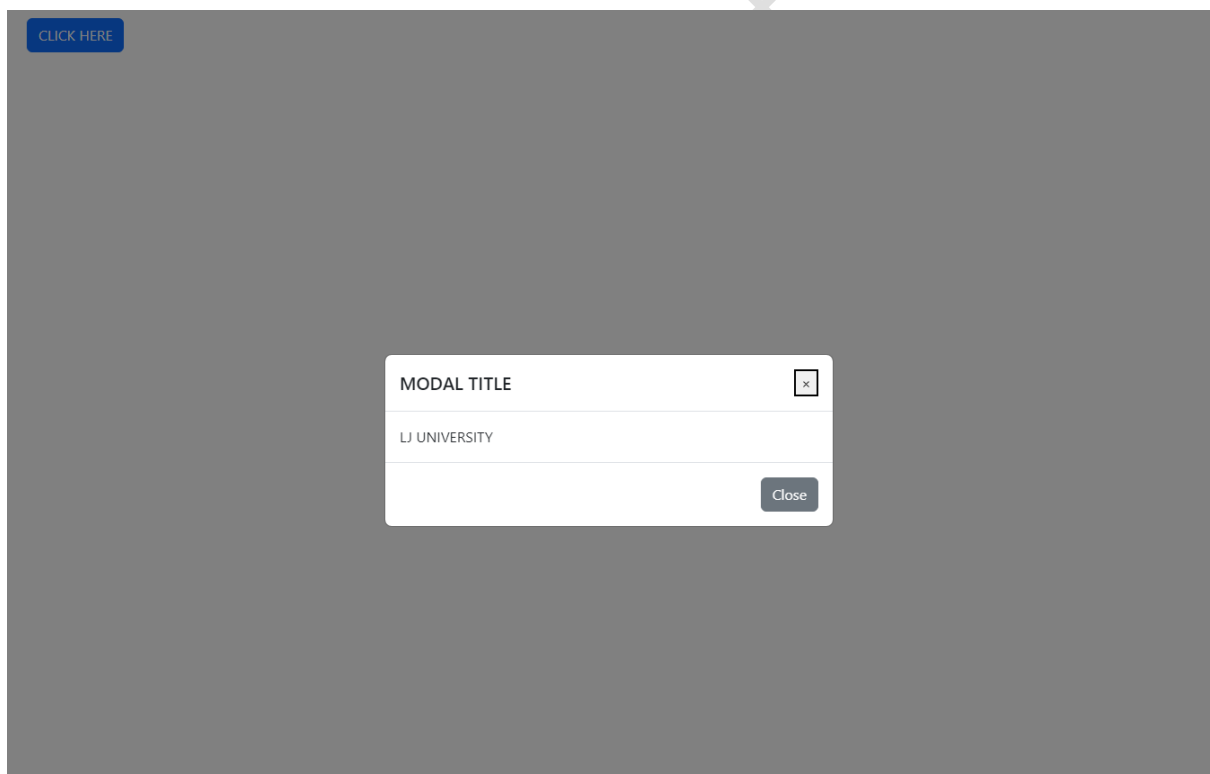
```
<html>
<head>
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css"
rel="stylesheet">
 <script
src="https://cdn.jsdelivr.net/npm/bootstrak@5.2.1/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
      <div class="container mt-3">
             <button class="btn btn-primary" data-bs-toggle="modal" data-bs-
target="#ex">CLICK HERE
             </button>
             <div class="modal" id="ex">
             <div class="modal-dialog modal-dialog-centered">
                    <div class="modal-content">
                           <div class="modal-header">
                                  <h5 class="modal-title">MODAL TITLE</h5>
                                  <button class="close" data-bs-
dismiss="modal">&times;</button>
                           </div>
                           <div class="modal-body">
```

LJ UNIVERSITY

</div>

<div class="modal-footer">

<button class="btn btn-secondary" data-bs-dismiss="modal">Close</button>

</div>

</div>

</div>

</div>

</body>

</html>

Output

Add animation

Use the .fade class to add a fading effect when opening and closing the modal

```html
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
        <div class="container mt-3">
<button class="btn btn-primary" data-bs-toggle="modal" data-bs-target="#ex">
CLICK HERE</button>
                <div class="modal fade" id="ex">
                <div class="modal-dialog modal-dialog-centered">
                        <div class="modal-content">
                                <div class="modal-header">
                                        <h5 class="modal-title">MODAL TITLE</h5>
        <button class="close" data-bs-dismiss="modal">&times;</button>
                                </div>
                                <div class="modal-body">
                                        LJ UNIVERSITY
                                </div>
                                <div class="modal-footer">
        <button class="btn btn-secondary" data-bs-dismiss="modal">Close</button>
                                </div>
                        </div>
                </div>
                </div>
        </div>
</body>
</html>
```

Modal Size

Change the size of the modal by adding the .modal-sm class for small modals (max-width 300px), .modal-lg class for large modals (max-width 800px), or .modal-xl for extra large modals (max-width 1140px). Default is 500px max-width. **There is no class for xxl.**

Add the size class to the <div> element with class .modal-dialog

If you want the modal to span the whole width and height of the page, use the .modal-fullscreen class

Example

```
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
  <h3>Small Modal Example</h3>
  <button type="button" class="btn btn-primary" data-bs-toggle="modal" data-bs-target="#myModal">
    Open modal
  </button>
</div>
<div class="modal" id="myModal">
  <div class="modal-dialog modal-sm">
    <div class="modal-content">
      <div class="modal-header">
        <h4 class="modal-title">Modal Heading</h4>
        <button type="button" class="btn-close" data-bs-dismiss="modal"></button>
      </div>
      <div class="modal-body">
        Modal body..
      </div>
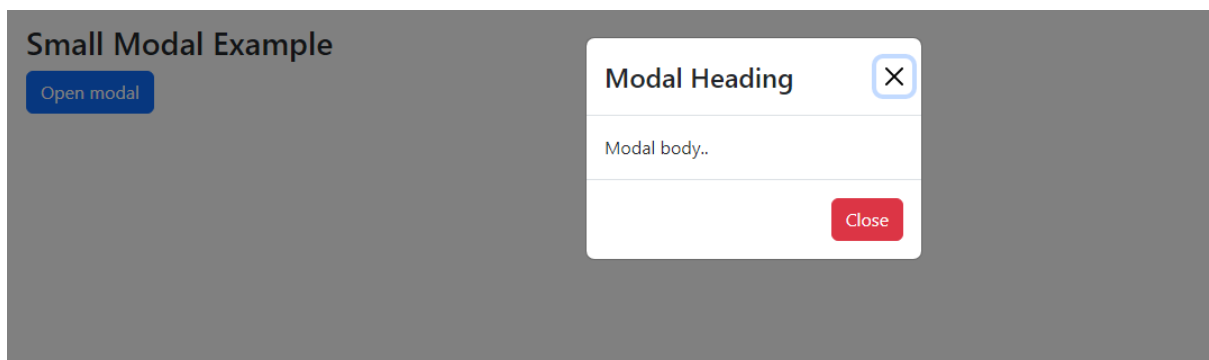```

```
      <div class="modal-footer">

        <button type="button" class="btn btn-danger" data-bs-dismiss="modal">Close</button>

      </div>

    </div>

  </div>

</div>

</body>

</html>
```

Output

Scrollspy

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

Add data-bs-spy="scroll" to the element that should be used as the scrollable area (often this is the <body> element).

Then add the data-bs-target attribute with a value of the id or the class name of the navigation bar (.navbar). This is to make sure that the navbar is connected with the scrollable area.

Note that scrollable elements must match the ID of the links inside the navbar's list items (<div id="section1"> matches <a href="#section1">).

.fixed-top – Given in <nav> tag to freeze the navbar at top

Example

```
<html>
<head>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body data-bs-spy="scroll">
      <nav class="navbar navbar-expand-sm bg-dark navbar-dark fixed-top">
            <div class="container-fluid">
                  <ul class="navbar-nav">
                     <li class="nav-item">
                            <a class="nav-link" href="#section1">Section 1</a>
                  </li>
                     <li class="nav-item">
                          <a class="nav-link" href="#section2">Section 2</a>
                  </li>
                  <li class="nav-item">
                            <a class="nav-link" href="#section3">Section 3</a>
                     </li>
   </ul>
```

```
    </div>
</nav>
        <div    id="section1"    class="container-fluid    bg-success    text-white"
style="padding:200px">
            <h1>You are in section-1</h1>
            <p>Enjoy scrolling</p>
            <pre>
a
  b
c
  d
e
  f
g
  h
a
  b
c
  d
e
  f
g
  h
            </pre>
        </div>
        <div    id="section2"    class="container-fluid    bg-warning    text-white"
style="padding:200px">
            <h1>You are in section-2</h1>
            <p>Enjoy scrolling</p>
            <pre>
a
  b
c
```

```
            d
e
    f
g
    h
a
    b
c
    d
e
    f
g
    h
                </pre>
        </div>
<div id="section3" class="container-fluid bg-info text-white" style="padding:200px">
                <h1>You are in section-3</h1>
                <p>Enjoy scrolling</p>
                <pre>
a
    b
c
    d
e
    f
g
    h
a
    b
c
    d
e
```

```
          f
g
   h
                </pre>
        </div>
</body>
</html>
```

Output

Flex: Horiizontal, Vertical, Justified

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

The Flexible Box Layout Module, makes it easier to design flexible responsive layout structure without using float or positioning

d-flex - To create a flexbox container and to transform direct children into flex items

```
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
  <h3>Flex</h3>
      <div class="d-flex p-3 bg-secondary text-white">
            <div class="p-2 bg-info">
                ITEM-1
            </div>
            <div class="p-2 bg-warning">
                ITEM-2
            </div>
            <div class="p-2 bg-danger">
                ITEM-3
            </div>
      </div>
</div>
</body>
</html>
```

Flex

ITEM-1 ITEM-2 ITEM-3

d-inline-flex - To create an inline flexbox container

<html>

<head>

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

  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">

  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

<div class="container mt-3">

  <h3>Inline Flex</h3>

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

         <div class="p-2 bg-info">

            ITEM-1

         </div>

         <div class="p-2 bg-warning">

            ITEM-2

         </div>

         <div class="p-2 bg-danger">

            ITEM-3

         </div>

      </div>

</div>

</body>

</html>

.flex-row - to display the flex items horizontally (side by side). This is default.

```
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
 <h3>Flex row</h3>
      <div class="d-flex flex-row p-3 bg-secondary text-white">
            <div class="p-2 bg-info">
                  ITEM-1
            </div>
            <div class="p-2 bg-warning">
                  ITEM-2
            </div>
            <div class="p-2 bg-danger">
                  ITEM-3
            </div>
      </div>
</div>
</body>
</html>
```

Flex row

ITEM-1 ITEM-2 ITEM-3

.flex-row - reverse to right-align the horizontal direction

```
<html>
<head>
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
 <h3>Revrese Flex row</h3>
        <div class="d-flex flex-row-reverse p-3 bg-secondary text-white">
                <div class="p-2 bg-info">
                        ITEM-1
                </div>
                <div class="p-2 bg-warning">
                        ITEM-2
                </div>
                <div class="p-2 bg-danger">
                        ITEM-3
                </div>
        </div>
</div>
</body>
</html>
```

Revrese Flex row

ITEM-3 ITEM-2 ITEM-1

.flex-column - to display the flex items vertically (on top of each other)

```
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
<h3>Flex column</h3>
        <div class="d-flex flex-column p-3 bg-secondary text-white">
                <div class="p-2 bg-info">
                        ITEM-1
                </div>
                <div class="p-2 bg-warning">
                        ITEM-2
                </div>
                <div class="p-2 bg-danger">
                        ITEM-3
                </div>
        </div>
</div>
</body>
</html>
```

Flex column

.flex-column-reverse - to reverse the vertical direction

```html
<html>
<head>
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link         href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
<h3>Flex column</h3>
        <div class="d-flex flex-column-reverse p-3 bg-secondary text-white">
                <div class="p-2 bg-info">
                        ITEM-1
                </div>
                <div class="p-2 bg-warning">
                        ITEM-2
                </div>
                <div class="p-2 bg-danger">
                        ITEM-3
                </div>
        </div>
</div>
</body>
</html>
```

Flex column

ITEM-3
ITEM-2
ITEM-1

.flex-fill – Use on flex items to force them into equal widths

```html
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
<h3>Flex fill</h3>
      <div class="d-flex p-3 bg-secondary text-white">
            <div class="p-2 flex-fill bg-info">
                  ITEM-1
            </div>
            <div class="p-2 flex-fill bg-info">
                  ITEM-2
            </div>
            <div class="p-2 flex-fill bg-info">
                  ITEM-3
            </div>
      </div>
</div>
</body>
</html>
```

Flex fill

| ITEM-1 | ITEM-2 | ITEM-3 |

.flex-grow-1 - Useon a flex item to take up the rest of the space. In the example below, the first two flex items take up their necessary space, while the last item takes up the rest of the available space

```
<html>

<head>

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

  <link           href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css"
rel="stylesheet">

  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

<div class="container mt-3">

<h3>grow</h3>

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

                <div class="p-2 bg-info">

                        ITEM-1

                </div>

                <div class="p-2  bg-warning flex-grow-1">

                        ITEM-2

                </div>

                <div class="p-2 bg-success">

                        ITEM-3

                </div>

        </div>

</div>

</body>

</html>
```

grow

Control how flex items wrap in a flex container with .flex-nowrap (default), .flex-wrap or .flex-wrap-reverse.

.flex-nowrap

<html>

<head>

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

 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">

 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

<div class="container mt-3">

<h3>no wrap</h3>

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

            <div class="p-2 bg-info">

                ITEM-1

                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. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

            </div>

            <div class="p-2 bg-warning">

                ITEM-2

            </div>

            <div class="p-2 bg-success">

                ITEM-3

            </div>

        </div></div></body>

</html>

.flex-wrap

```
<html>

<head>

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

 <link        href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css"
rel="stylesheet">

 <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

<div class="container mt-3">

<h3>wrap</h3>

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

                <div class="p-2 bg-info">

                    ITEM-1

                    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. Duis aute irure dolor in
reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint
occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

                </div>

                <div class="p-2  bg-warning">

                    ITEM-2

                </div>

                <div class="p-2 bg-success">

                    ITEM-3

                </div>

        </div>

</div>

</body>

</html>
```

.flex-wrap-reverse

<html>

<head>

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

 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">

 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

<div class="container mt-3">

<h3>wrap reverse</h3>

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

                <div class="p-2 bg-info">

                    ITEM-1

                    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. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

                </div>

                <div class="p-2 bg-warning">

                    ITEM-2

                </div>

                <div class="p-2 bg-success">

                    ITEM-3

                </div>

        </div>

</div>

</body>

</html>

wrap reverse

ITEM-2 ITEM-3

ITEM-1 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. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

7.2 Forms

Stacked form: All controls will be in next line

Some classes related to bootstrap 5 form

.form-control- Used in textfield, password field.

.form-check- Used in outer <div> tag

.form-check-label- Label for checkbox.

.form-check-input- This works in checkbox control

Example

```
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
  <h2>Stacked form</h2>
  <form action="">
   <div class="mt-3">
    <label for="email">Email:</label>
    <input type="email" class="form-control" id="email" placeholder="Enter email" name="email">
   </div>
   <div class="mt-3">
    <label for="pwd">Password:</label>
    <input type="password" class="form-control" id="pwd" placeholder="Enter password" name="pswd">
   </div>
   <div class="form-check mt-3">
    <label class="form-check-label">
```

```
    <input class="form-check-input" type="checkbox" name="remember"> Remember me
  </label>
</div>
<button type="submit" class="btn btn-primary">Submit</button>
</form>
</div>
</body>
</html>
```

Output

Dropdown(Select Menu)

Classes: .form-group, .form-select

Example

```
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
```

```
<div class="container mt-3">
  <form action="">
   <div class="form-group">
                    <label>Select Country
                    <select class="form-select">
                            <optgroup label="Asia">
                                    <option>India</option>
                                    <option>China</option>
                            </optgroup>
                    </select>
                    </label>
            </div>
   </form>
</div>
</body>
</html>
```

Output

Select Country

India

Asia
India
China

Textarea

Note: By default textarea renders full width, so there is no significance of giving cols attribute in <textarea> tag.

<html>

<head>

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

 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">

 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

<div class="container mt-3">

 <h2>Textarea</h2>

 <form action="">

  <div class="mt-3">

   <label for="comment">Comments:</label>

   <textarea class="form-control" rows="5" id="comment" name="text"></textarea>

  </div>

  <button type="submit" class="btn btn-primary mt-3">Submit</button>

 </form>

</div>

</body>

</html>

Output

Textarea

Comments:

Inline Forms

```html
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
  <h2>Inline Form</h2>
  <form>
    <div class="row">
      <div class="col">
        <input type="text" class="form-control" placeholder="Enter email" name="email">
      </div>
      <div class="col">
        <input type="password" class="form-control" placeholder="Enter password" name="pswd">
      </div>
    </div>
  </form>
</div>
</body>
</html>
```

Output

Inline Form

| Enter email | Enter password |

Radio button

```
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
  <h2>Radio Button</h2>
  <form>
        <div class="form-check">
    <input type="radio" class="form-check-input" id="radio1" name="optradio" value="option1" checked>
    <label class="form-check-label" for="radio1">Option 1</label>
        </div>
        <div class="form-check">
    <input type="radio" class="form-check-input" id="radio2" name="optradio" value="option2">
    <label class="form-check-label" for="radio2">Option 2</label>
  </div>
  <div class="form-check">
    <input type="radio" class="form-check-input" disabled>
    <label class="form-check-label">Option 3</label>
  </div>
</form></div>
</body>
</html>
```

Output

Radio Button

○ Option 1
○ Option 2
○ Option 3

Checkbox

```
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
<form>
  <div class="form-check">
    <input type="checkbox" class="form-check-input" id="check1" name="option1" value="something" checked>
    <label class="form-check-label" for="check1">Option 1</label>
  </div>
  <div class="form-check">
    <input type="checkbox" class="form-check-input" id="check2" name="option2" value="something">
    <label class="form-check-label" for="check2">Option 2</label>
  </div>
  <div class="form-check">
   <input type="checkbox" class="form-check-input">
   <label class="form-check-label">Option 3</label>
  </div>
 </form>
</div>
</body>
</html>
```

Output

☑ Option 1
☐ Option 2
☐ Option 3

Toggle Switch

If you want your checkbox to be styled as a toggle switch, use the **.form-switch** class together with the **.form-check** container

Example

<html>

<head>

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

 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">

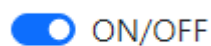 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

<div class="container mt-3">

<form>

 <div class="form-check form-switch">

  <input class="form-check-input" type="checkbox" id="mySwitch" checked>

  <label class="form-check-label" for="mySwitch">ON/OFF</label>

 </div>

 </form>

</div>

</body>

</html>

Output

Form Validation

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

```
<html>

<head>

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

  <link          href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css"
rel="stylesheet">

  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>

</head>

<body>

<div class="container mt-3">

  <form class="was-validated">

    <div class="mt-3">

      <label for="uname" class="form-label">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="mt-3">

      <label for="pwd" class="form-label">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-check mt-3">

    <input class="form-check-input" type="checkbox" id="myCheck"   name="remember"
required>

    <label class="form-check-label" for="myCheck">I agree on terms and conditions</label>

    <div class="valid-feedback">Valid.</div>

    <div class="invalid-feedback">Check this checkbox to continue.</div>

  </div>

 <button type="submit" class="btn btn-primary">Submit</button>

 </form>

</div>

</body>

</html>
```

Username:

| zalak | ✓ |

Valid.

Password:

| Enter password | ⊘ |

Please fill out this field.

☐ I agree on terms and conditions
  Check this checkbox to continue.

Submit

Example

```
<html>

<head>

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

 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css"
rel="stylesheet">

 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js">
</script>

</head>

<body>

<div class="container mt-3">

 <h3>Needs-validated</h3>

      <form action="post" class="needs-validated">

            <div class="mt-3">
```

```html
            <label>Email
                <input type="email" class="form-control" placeholder="abc@gmail.com" required/>
            </label>
        </div>
        <div class="mt-3">
            <label>Password
                <input type="password" class="form-control" placeholder="Enter Password" required/>
            </label>
        </div>
        <div class="mt-3">
        <label>
        <input type="submit" class="btn btn-secondary" value="Click Me"/>
        </label>
        </div>
    </form>
</div>
</body>
</html>
```

Output

On clicking button

Needs-validated

Email

zpb

⚠ Please include an '@' in the email address. 'zpb' is missing an '@'.

Enter Password

Click Me

7.3 Grid system: Classes, Stacked and Horizontal, Small, Medium and Large Grid

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

If you do not want to use all 12 columns individually, you can group the columns together to create wider columns

The Bootstrap 5 grid system has six classes:

- .col- (extra small devices - screen width less than 576px)
- .col-sm- (small devices - screen width equal to or greater than 576px)
- .col-md- (medium devices - screen width equal to or greater than 768px)
- .col-lg- (large devices - screen width equal to or greater than 992px)
- .col-xl- (xlarge devices - screen width equal to or greater than 1200px)
- .col-xxl- (xxlarge devices - screen width equal to or greater than 1400px)