BOOTSTRAP 4

Bootstrap 4 is the newest version of Bootstrap, which is the most popular HTML, CSS, and JavaScript framework for developing responsive, mobile-first websites.

There are two container classes to choose from:

1. The .container class provides a responsive fixed width container
2. The .container-fluid class provides a full width container, spanning the entire width of the viewport

```
<head>
 <title>Bootstrap 4 Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css">
</head>
```

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

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

```
<table class="table">
  <thead>
   <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Email</th>
   </tr>
```

```
    </thead>
    <tbody>
     <tr>
      <td>John</td>
      <td>Doe</td>
      <td>john@example.com</td>
     </tr>
     <tr>
      <td>Mary</td>
      <td>Moe</td>
      <td>mary@example.com</td>
     </tr>
     <tr>
      <td>July</td>
      <td>Dooley</td>
      <td>july@example.com</td>
     </tr>
    </tbody>
   </table>
```

.table-bordered

.table-hover

.table-dark

Combine .table-dark and .table-striped to create a dark, striped table:

.table-borderless class removes borders from the table:

Class	Description
.table-primary	Blue: Indicates an important action
.table-success	Green: Indicates a successful or positive action

2

.table-danger	Red: Indicates a dangerous or potentially negative action
.table-info	Light blue: Indicates a neutral informative change or action
.table-warning	Orange: Indicates a warning that might need attention
.table-active	Grey: Applies the hover color to the table row or table cell
.table-secondary	Grey: Indicates a slightly less important action
.table-light	Light grey table or table row background
.table-dark	Dark grey table or table row background

`.table-responsive` class creates a responsive table

BS4-IMAGES:-

```
<img src="cinqueterre.jpg" class="rounded-circle" alt="Cinque Terre">

<img src="paris.jpg" class="float-left">

<img src="paris.jpg" class="mx-auto d-block">
```

Bootstrap 4 Jumbotron

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

Full-width Jumbotron

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

```
<div class="jumbotron jumbotron-fluid">
```

Bootstrap 4 Alerts

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

3

Alerts are created with the `.alert` class, followed by one of the contextual classes `.alert-success`, `.alert-info`, `.alert-warning`, `.alert-danger`, `.alert-primary`, `.alert-secondary`, `.alert-light` or `.alert-dark`:

Bootstrap 4 Buttons

`btn btn-primary`   `btn btn-info`   `btn btn-dark`

`btn btn-secondary` `btn btn-warning`   `btn btn-light`

`btn btn-success` `btn btn-danger`   `btn btn-link`

`OUTLINE:-btn btn-outline-primary`

Button Groups

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

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

`Badge:-`Badges are used to add additional information to any content. Use the `.badge`class together with a contextual class (like `.badge-secondary`) within `<span>`elements to create rectangular badges

(Badges are numerical indicators of how many items are associated with a link)

`class="badge badge-secondary`

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

4

Basic Progress Bar

A progress bar can be used to show a user how far along he/she is in a process.

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

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

Pagination:

If you have a web site 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>
```

Basic List Groups

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

```
<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>

<li class="list-group-item list-group-item-info">Info item</li>
```

Cards

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

```
<div                                               class="card">
  <div                                       class="card-body">
    <h4                 class="card-title">Card              title</h4>
    <p  class="card-text">Some  example  text.  Some  example  text.</p>
    <a          href="#"          class="card-link">Card          link</a>
    <a          href="#"        class="card-link">Another          link</a>
  </div>
</div>
```

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-
toggle="dropdown">
    Dropdown                                              button
  </button>
  <div                                      class="dropdown-menu">
    <a         class="dropdown-item"        href="#">Link          1</a>
    <a         class="dropdown-item"        href="#">Link          2</a>
    <a         class="dropdown-item"        href="#">Link          3</a>
  </div>
</div>
```

Bootstrap 4 Carousel

The Carousel is a slideshow for cycling through elements.

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

  <!--                          Indicators                          -->
  <ul                                    class="carousel-indicators">
```

```html
    <li    data-target="#demo"    data-slide-to="0"    class="active"></li>
    <li          data-target="#demo"          data-slide-to="1"></li>
    <li          data-target="#demo"          data-slide-to="2"></li>
  </ul>

  <!--                    The                    slideshow                    -->
  <div                                            class="carousel-inner">
    <div                  class="carousel-item                    active">
      <img          src="la.jpg"          alt="Los          Angeles">
    </div>
    <div                                        class="carousel-item">
      <img              src="chicago.jpg"              alt="Chicago">
    </div>
    <div                                        class="carousel-item">
      <img          src="ny.jpg"          alt="New          York">
    </div>
  </div>

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

</div>
```

Bootstrap 4 Modal

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

```html
<button type="button" class="btn btn-primary" data-toggle="modal" data-target="#myModal">
  Open                                                              modal
</button>

<!--                    The                    Modal                    -->
<div                  class="modal"                  id="myModal">
```

```html
<div                                         class="modal-dialog">
   <div                                      class="modal-content">

      <!--              Modal             Header              -->
      <div                                  class="modal-header">
        <h4            class="modal-title">Modal         Heading</h4>
        <button          type="button"       class="close"         data-
dismiss="modal">&times;</button>
      </div>

      <!--              Modal              body               -->
      <div                                  class="modal-body">
        Modal                                                body..
      </div>

      <!--              Modal             footer              -->
      <div                                  class="modal-footer">
        <button     type="button"    class="btn     btn-danger"    data-
dismiss="modal">Close</button>
      </div>

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

Bootstrap 4 Tooltip

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

Tooltips must be initialized with jQuery: select the specified element and call the `tooltip()` method.

```
<a href="#" data-toggle="tooltip" title="Hooray!">Hover over me</a>
<script>
$(document).ready(function(){
  $('[data-toggle="tooltip"]').tooltip();
```

```
});
</script>
```

Bootstrap 4 Popover

The Popover component is similar to tooltips; it is a pop-up box that appears when the user clicks on an element. The difference is that the popover can contain much more content.

```html
<a href="#" data-toggle="popover" title="Popover Header" data-content="Some content inside the popover">Toggle popover</a>

<script>
$(document).ready(function(){
  $('[data-toggle="popover"]').popover();
});
</script>
```

Popovers must be initialized with jQuery: select the specified element and call the popover() method.

Bootstrap 4 Scrollspy

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

```html
<!-- The scrollable area -->
<body data-spy="scroll" data-target=".navbar" data-offset="50">

<!-- The navbar - The <a> elements are used to jump to a section in the scrollable area -->
<nav class="navbar navbar-expand-sm bg-dark navbar-dark fixed-top">
...
  <ul class="navbar-nav">
    <li><a href="#section1">Section 1</a></li>
    ...
</nav>

<!-- Section 1 -->
<div id="section1">
  <h1>Section 1</h1>
```

9

```
    <p>Try to scroll this page and look at the navigation bar while
scrolling!</p>
</div>
...

</body>
```

Bootstrap 4 Utilities

Bootstrap 4 has alot of utility/helper classes to quickly style elements without using any CSS code.

```
<span                                          class="border"></span>
<span                   class="border                    border-0"></span>
<span                 class="border                  border-top-0"></span>
<span               class="border            border-right-0"></span>
<span              class="border          border-bottom-0"></span>
<span class="border border-left-0"></span>
```

Bootstrap 4 Flex

Use flex classes to control the layout of Bootstrap 4 components.

Flexbox

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

```
<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>
```

10

Media Objects

Bootstrap provides an easy way to align media objects (like images or videos) together with content. Media objects are often used to display blog comments, tweets and so on:

```
<div class="media border p-3">
  <img src="img_avatar3.png" alt="John Doe" class="mr-3 mt-3 rounded-circle" style="width:60px;">
  <div class="media-body">
    <h4>John Doe <small><i>Posted on February 19, 2016</i></small></h4>
    <p>Lorem ipsum...</p>
  </div>
</div>
```

Bootstrap 4 Filters

Bootstrap does not have a component that allows filtering. However, we can use jQuery to filter / search for elements

```
<script>
$(document).ready(function(){
  $("#myInput").on("keyup", function() {
    var value = $(this).val().toLowerCase();
    $("#myTable tr").filter(function() {
      $(this).toggle($(this).text().toLowerCase().indexOf(value) > -1)
    });
  });
});
</script>


Grid system in b4:
```

11

Extra Small Grid Example

		Small	Medium	Large	Extra Large
Class prefix	`.col-`	`.col-sm-`	`.col-md-`	`.col-lg-`	`.col-xl-`
Screen width		>=576px	>=768px	>=992px	>=1200px