

Dr. Y. J. Nagendra Kumar - 2

Bootstrap Programming

- Bootstrap is the most popular and powerful front-end (HTML, CSS, and JavaScript) framework for faster and easier responsive web development.
- It includes HTML and CSS based design templates for creating common user interface components like forms, buttons, navigations, dropdowns, alerts, modals, tabs, accordions, carousels, tooltips, and so on.

- Bootstrap gives you ability to create flexible and responsive web layouts with much less efforts.
- Bootstrap was originally created by a designer and a developer at Twitter in mid-2010. Before being an open-sourced framework, Bootstrap was known as Twitter Blueprint.

Features of Bootstrap Programming

- You can easily create responsive websites.
- You can quickly create multi-column layout with pre-defined classes.
- You can quickly create different types of form layouts.
- You can quickly create different variation of navigation bar.
- You can easily create components like accordions, modals, etc. without writing any JS code.
- You can easily create dynamic tabs to manage large amount of content.
- You can easily create tooltips and popovers to show hint text.
- You can easily create carousel or image slider to showcase your content.
- You can quickly create different types of alert boxes.

Advantages of Bootstrap Programming

- Save lots of time You can save lots of time and efforts using the Bootstrap predefined design templates and classes and concentrate on other development work.
- Responsive features Using Bootstrap you can easily create responsive websites that appear more appropriately on different devices and screen resolutions without any change in markup.
- Consistent design All Bootstrap components share the same design templates and styles through a central library, so the design and layout of your web pages will be consistent.
- Easy to use Bootstrap is very easy to use. Anybody with the basic working knowledge of HTML, CSS and JavaScript can start development with Bootstrap.

- Compatible with browsers Bootstrap is created with modern web browsers in mind and it is compatible with all modern browsers such as Chrome, Firefox, Safari, Internet Explorer, etc.
- Open Source And the best part is, it is completely free to download and use.

Responsive Feature of Bootstrap



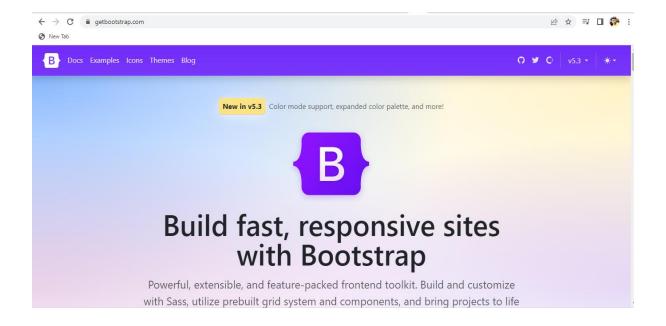


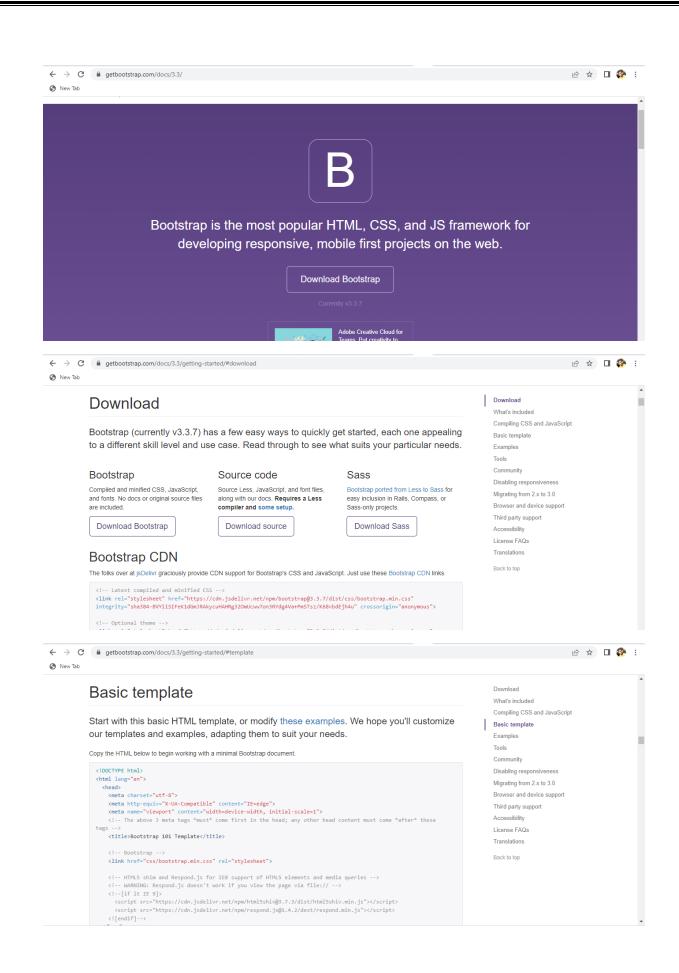
RESPONSIVE



Bootstrap Programming - Setup

- There are two ways to start using Bootstrap on your own web site.
- You can:
- Download Bootstrap 5 from getbootstrap.com
- If you want to download and host Bootstrap yourself, go to https://getbootstrap.com/, and follow the instructions there.
- Include Bootstrap from a CDN (Content Delivery Network)
- If you don't want to download and host Bootstrap 5 yourself, you can include it from a CDN (Content Delivery Network).
- <!-- Latest compiled and minified CSS --> k href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
 - <!-- Latest compiled JavaScript -->
 - <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstr
 ap.bundle.min.js"></script>





Bootstrap - First Application

1. Add the HTML5 doctype

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Bootstrap 5 Example</title>
<meta charset="utf-8">
</head>
</html>
```

2. Bootstrap 5 is mobile-first

- Bootstrap 5 is designed to be responsive to mobile devices. Mobile-first styles are part of the core framework.
- To ensure proper rendering and touch zooming, add the following <meta> tag
 inside the <head> element:
- <meta name="viewport" content="width=device-width, initial-scale=1">
- The width=device-width part sets the width of the page to follow the screenwidth of the device (which will vary depending on the device).
- The initial-scale=1 part sets the initial zoom level when the page is first loaded by the browser.

3. Containers

- 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 Example

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 k href="bootstrap-5.3.6/css/bootstrap.min.css" rel="stylesheet">
 <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.mi
n.js"></script>
</head>
<body>
<div class="container">
 <h1>My First Bootstrap Page</h1>
 This part is inside a .container class.
 The .container class provides a responsive fixed width container.
 Resize the browser window to see that the container width will change at
different breakpoints.
</div>
</body> </html>
```

My First Bootstrap Page

This part is inside a .container class.

The .container class provides a responsive fixed width container.

Resize the browser window to see that the container width will change at different breakpoints.

Container-fluid Example

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <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.mi
n.js"></script>
</head>
<body>
<div class="container-fluid">
 <h1>My First Bootstrap Page</h1>
 This part is inside a .container-fluid class.
 The .container-fluid class provides a full width container, spanning the
entire width of the viewport.
</div>
</body></html>
```

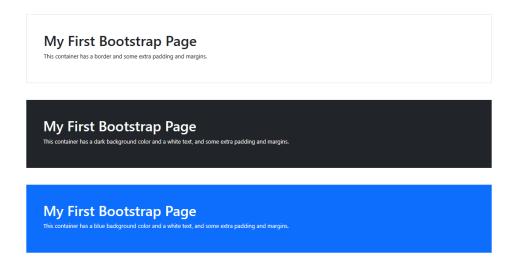
My First Bootstrap Page

This part is inside a .container-fluid class.

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

Container-fluid Border and Color Example

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 k href="bootstrap-5.3.0/css/bootstrap.min.css" rel="stylesheet">
 <script src="bootstrap-5.3.0/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container p-5 my-5 border">
 <h1>My First Bootstrap Page</h1>
 This container has a border and some extra padding and margins.
</div>
<div class="container p-5 my-5 bg-dark text-white">
 <h1>My First Bootstrap Page</h1>
 This container has a dark background color and a white text, and some extra
padding and margins.
</div>
<div class="container p-5 my-5 bg-primary text-white">
 <h1>My First Bootstrap Page</h1>
 This container has a blue background color and a white text, and some extra
padding and margins.
</div>
</body>
</html>
```

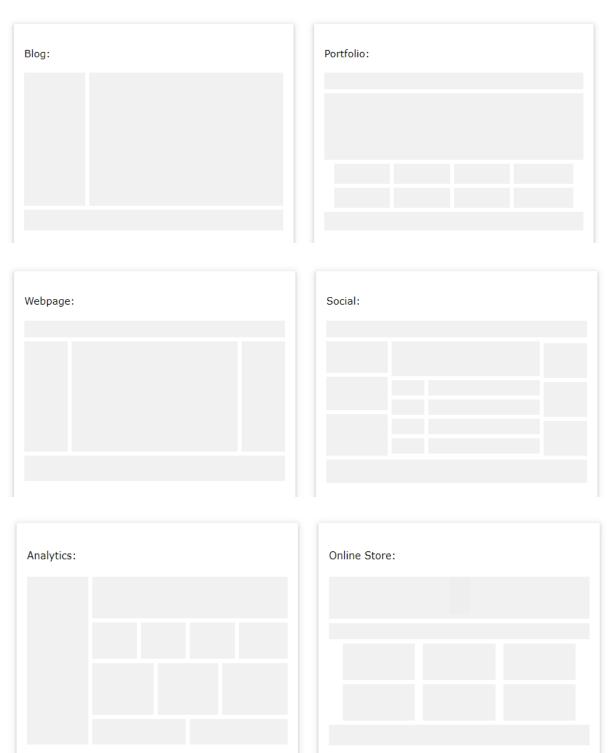


Bootstrap - Colors

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

This text is important.	
This text indicates success.	
This text represents some information.	
This text represents a warning.	
This text represents danger.	
Secondary background color.	
Dark grey background color.	
Light grev background color.	

Templates



7

1. Blog Template:

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"</pre>
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
  <link href="bootstrap-5.3.0/css/bootstrap.min.css" rel="stylesheet">
  <script src="bootstrap-5.3.0/js/bootstrap.bundle.min.js"></script>
   /* Set height of the grid so .sidenav can be 100% (adjust if needed) */
   .row.content {height: 1500px}
   /* Set gray background color and 100% height */
    .sidenav {
     background-color: #f1f1f1;
     height: 100%;
    /* Set black background color, white text and some padding */
   footer {
     background-color: #555;
     color: white;
     padding: 15px;
   /* On small screens, set height to 'auto' for sidenav and grid */
   @media screen and (max-width: 767px) {
     .sidenav {
       height: auto;
       padding: 15px;
     }
      .row.content {height: auto;}
 </style>
</head>
<body>
<div_class="container-fluid">
 <div class="row content">
   <div class="col-sm-3 sidenav">
     h4>My Blog</h4>
     <a href="#section1">Home</a>
       <a href="#section2">Friends</a>
       <a href="#section3">Family</a>
       <a href="#section3">Photos</a>
     <div class="input-group">
       <input type="text" class="form-control" placeholder="Search Blog..">
       <span class="input-group-btn">
         <button class="btn btn-default" type="button">
           <span class="glyphicon glyphicon-search"></span>
         </button>
       </span>
     </div>
```

```
<div class="col-sm-9">
                 <h4><small>RECENT POSTS</small></h4>
                  <hr>>
                  <h2>I Love Food</h2>
                  <h5><span class="glyphicon glyphicon-time"></span> Post by Nagendra, Feb 27,
2023.</h5>
                  <h5><span class="Label Label-danger">Food</span> <span class="Label Label-danger">Food</span class="Label Labe
primary">Ipsum</span></h5><br>
                  Food is my passion. 
                  <br><br><br><
                  <h4><small>RECENT POSTS</small></h4>
                  <hr>>
                  <h2>Officially Blogging</h2>
                  <h5><span class="glyphicon glyphicon-time"></span> Post by Nagendra, Feb 27,
2023.</h5>
                  <h5><span class="label label-success">Lorem</span></h5><br>
                  Official Blog
                  <hr>>
                  <h4>Leave a Comment:</h4>
                  <form role="form">
                       <div class="form-group">
                              <textarea class="form-control" rows="3" required></textarea>
                       </div>
                       <button type="submit" class="btn btn-success">Submit</button>
                  </form>
                  <br><br><br>>
</div>
<footer class="container-fluid">
      Footer Text
</footer>
</body>
</html>
              □ | ① (1) WhatsApp x | ② Bootstrap Example x ② Bootstrap Example x
                                                                                                                                                                                                                     - 0 X
                ← C ① File | C:/Users/admin/eclipse-workspace/BootStrap1/src/main/webapp/BogTemplate.html#section3
                                                                                                                                                                                         A 6 6 @ ...
               My Blog
                                                                     I Love Food
                                                                     © Post by Nagendra, Feb 27, 2023.
                                                                     Officially Blogging
                                                                      O Post by Nagendra, Feb 27, 2023.
                                                                     Lorem
                                                                     Leave a Comment:
```

</div>

14

2. Web page Layout:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"</pre>
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script</pre>
  <style>
    /* Remove the navbar's default margin-bottom and rounded borders */
    .navbar {
      margin-bottom: 0;
      border-radius: 0;
    }
    /* Set height of the grid so .sidenav can be 100% (adjust as needed) */
    .row.content {height: 450px}
    /* Set gray background color and 100% height */
    .sidenav {
      padding-top: 20px;
      background-color: #f1f1f1;
      height: 100%;
    /* Set black background color, white text and some padding */
    footer {
      background-color: #555;
      color: white;
      padding: 15px;
    }
    /* On small screens, set height to 'auto' for sidenav and grid */
    @media screen and (max-width: 767px) {
      .sidenav {
        height: auto;
        padding: 15px;
      }
      .row.content {height:auto;}
    }
  </style>
</head>
<body>
<nav class="navbar navbar-inverse">
  <div class="container-fluid">
    <div class="navbar-header">
      <button type="button" class="navbar-toggle" data-toggle="collapse" data-</pre>
target="#myNavbar">
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
```

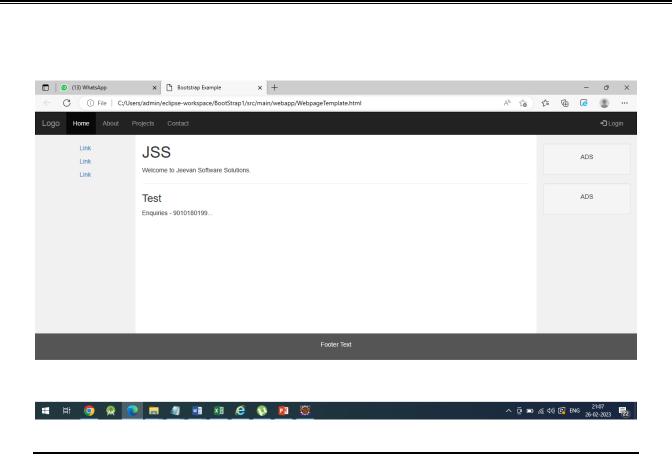
```
<div class="collapse navbar-collapse" id="myNavbar">
    <a href="#">Home</a>
      <a href="#">About</a>
      <a href="#">Projects</a>
      <a href="#">Contact</a>
    <a href="#"><span class="glyphicon glyphicon-log-in"></span>
Login</a>
     </div>
 </div>
</nav>
<div class="container-fluid text-center">
 <div class="row content">
   <div class="col-sm-2 sidenav">
    <a href="#">Link</a>
    <a href="#">Link</a>
    <a href="#">Link</a>
   </div>
   <div class="col-sm-8 text-left">
    <h1>JSS</h1>
    Welcome to <u>Jeevan</u> Software Solutions.
    <hr>
    <h3>Test</h3>
    Enquiries - 9010180199...
   </div>
   <div class="col-sm-2 sidenav">
    <div class="well">
      ADS
    </div>
    <div class="well">
      ADS
    </div>
   </div>
 </div>
</div>
<footer class="container-fluid text-center">
 Footer Text
</footer>
</body>
</html>
```

 $^{\mathrm{age}}15$

</button>

</div>

Logo



Navigation bars

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

1. Basic Navbar:

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

A standard navigation bar is created with the <u>navbar</u> class, followed by a responsive collapsing class: <u>navbar-expand-xxl|xl|lg|md|sm</u> (stacks the navbar vertically on xxlarge, extra large, large, medium or small screens).

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

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link href="bootstrap-5.3.0/css//bootstrap.min.css" rel="stylesheet">
 <script src="bootstrap-5.3.0/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<nav class="navbar navbar-expand-sm bg-light">
 <div class="container-fluid">
   <a class="nav-link" href="#">Link 1</a>
     <a class="nav-link" href="#">Link 2</a>
     <a class="nav-link" href="#">Link 3</a>
     </div>
</nav>
<div class="container-fluid mt-3">
 <h3>Basic Navbar Example</h3>
 A navigation bar is a navigation header that is placed at the top of the
page.
 The \underline{navbar}-expand-\underline{xx1}|\underline{x1}|\underline{lg}|\underline{md}|\underline{sm} class determines when the \underline{navb}ar should
stack vertically (on xxlarge, extra large, large, medium or small screens)..
</div>
</body>
</html>
```

Basic Navbar Example

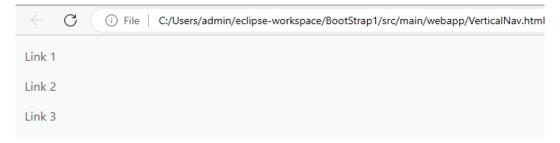
A navigation bar is a navigation header that is placed at the top of the page.

The navbar-expand-xxl|xl||g|md|sm class determines when the navbar should stack vertically (on xxlarge, extra large, large, medium or small screens).

2. Vertical Navbar

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

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="bootstrap-5.3.0/css//bootstrap.min.css" rel="stylesheet">
  <script src="bootstrap-5.3.0/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<nav class="navbar bg-light">
 <div class="container-fluid">
   <a class="nav-link" href="#">Link 1</a>
     <a class="nav-link" href="#">Link 2</a>
     <a class="nav-link" href="#">Link 3</a>
     </div>
</nav>
<div class="container-fluid mt-3">
 <h3>Vertical Navbar Example</h3>
 A navigation bar is a navigation header that is placed at the top of the
page.
</div>
</body>
</html>
```



Vertical Navbar Example

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

3. Centered Navbar

Add the .justify-content-center class to center the navigation bar:

```
<nav class="navbar navbar-expand-sm bg-light justify-content-center">
    ...
  </nav>
```

Link 1 Link 2 Link 3

4. 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)

```
<!-- Black background with white text -->
<nav class="navbar navbar-expand-sm bg-dark navbar-dark">...</nav>
<!-- Blue background with white text -->
<nav class="navbar navbar-expand-sm bg-primary navbar-dark">...</nav>
```

```
Active Link Link Disabled
```

Active Link Link Disabled

Active Link Link Disabled

5. Brand / Logo

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

Logo



6. Navbar With Dropdown

```
Logo Link Link Dropdown ▼

Navbars can also hold dropo

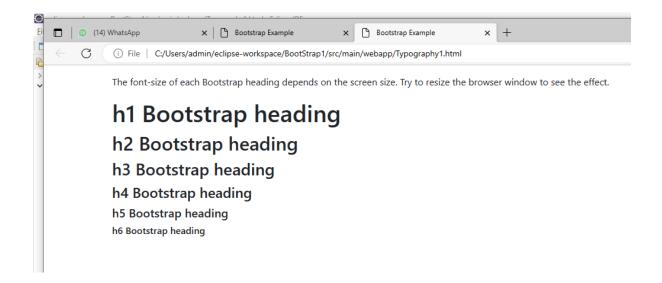
Link
Another link
A third link

Example
```

Bootstrap Typography

Bootstrap 5 uses a default font-size of 1rem (16px by default), and its line-height is 1.5.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="bootstrap-5.3.0/css//bootstrap.min.css" rel="stylesheet">
   <script src="bootstrap-5.3.0/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container mt-3">
  The font-size of each Bootstrap heading depends on the screen size. Try to
resize the browser window to see the effect.
  <h1>h1 Bootstrap heading</h1>
  <h2>h2 Bootstrap heading</h2>
  <h3>h3 Bootstrap heading</h3>
  <h4>h4 Bootstrap heading</h4>
  <h5>h5 Bootstrap heading</h5>
  <h6>h6 Bootstrap heading</h6>
</div>
</body>
</html>
```



1. Customizing Headings

We can use the <small> tag with .text-muted class to display the secondary text of any heading in a smaller and lighter variation.

2. Display Headings

- Bootstrap also provides display headings that can be used when you need a
 heading to stand out. Display headings are displayed in larger font-size but
 lighter font-weight.
- Six different display headings are available. Here's is an example:

```
<h1 class="display-1">Display Heading 1</h1>
<h1 class="display-2">Display Heading 2</h1>
<h1 class="display-3">Display Heading 3</h1>
<h1 class="display-4">Display Heading 4</h1>
<h1 class="display-4">Display Heading 5</h1>
<h1 class="display-5">Display Heading 5</h1>
<h1 class="display-6">Display Heading 6</h1></h1></h1></h1></h1>
```

Display Heading 1 Display Heading 2 Display Heading 3 Display Heading 4 Display Heading 5 Display Heading 6

3. <mark>

Bootstrap 5 will style <mark> and .mark with a yellow background color and some padding:

```
<div class="container mt-3">
  <h1>Highlight Text</h1>
  Use the mark element (or the .mark class) to <mark>highlight</mark> text.
</div>
```

Use the mark element to highlight text.

4. <abbr>

Bootstrap 5 will style the HTML <abbr> element with a dotted border bottom and a cursor with question mark on hover:

```
<div class="container mt-3">
  <h1>Abbreviations</h1>
  The abbr element is used to mark up an abbreviation or acronym:
  The <abbr title="World Health Organization">WHO</abbr> was founded in 1948.
</div>
```

The WHQ was founded in 1948.

World Health Organization

5. <blockquote>

Add the .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:

For 50 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by 1.2 million members in the United States and close to 5 million globally.

— From WWF's website

6. <dl>

Bootstrap 5 will style the HTML <dl> element in the following way:

```
<div class="container mt-3">
  <h1>Description Lists</h1>
  The dl element indicates a description list:
  <dl>
  <dt>Coffee</dt>
  <dd>
  <dd
  <dd>
  <dd>
```

```
</dl>
```

Description Lists

The dl element indicates a description list:

Coffee

- black hot drink

Milk

- white cold drink

7. <kbd>

Bootstrap 5 will style the HTML < kbd > element in the following way:

```
<div class="container mt-3">
  <h1>Keyboard Inputs</h1>
  To indicate input that is typically entered via the keyboard, use the kbd
element:
  Use <kbd>ctrl + p</kbd> to open the Print dialog box.
</div>
```

Keyboard Inputs

To indicate input that is typically entered via the keyboard, use the kbd element:

Use ctrl + p to open the Print dialog box.

8.

Bootstrap 5 will style the HTML element in the following way:

```
<div class="container mt-3">
<h1>Multiple Code Lines</h1>
For multiple lines of code, use the pre element:
```

```
Text in a pre element
is displayed in a fixed-width
font, and it preserves
both spaces and
line breaks.

</div>
```

Multiple Code Lines

For multiple lines of code, use the pre element:

```
Text in a pre element
is displayed in a fixed-width
font, and it preserves
both spaces and
line breaks.
```

9. Text Alignment

You can easily align text to left, right, and center using the text alignment classes.

```
Left aligned text on all viewport sizes. Center aligned text on all viewport sizes. Right aligned text on all viewport sizes.
```

Left aligned text on all viewport sizes.

Center aligned text on all viewport sizes.

Right aligned text on all viewport sizes

10. Text Formatting

You are free to use text formatting tags like , <i>, <small> to make your text bold, italic, small and so on

```
<div class="m-4">
    <b>This is bold text</b>
    <code>This is computer code</code>
    <em>This is emphasized text</em>
    <i>This is italic text</i>
    <mark>This is highlighted text</mark>
    <small>This is small text</small>
    <strong>This is strongly emphasized text</strong>
    This is <sub>subscript</sub> and <sup>superscript</sup>
    <ins>This text is inserted to the document</ins>
    <del>This text is deleted from the document</del>
</div>
```

This is bold text

This is computer code

This is emphasized text

This is italic text

This is highlighted text

This is small text

This is strongly emphasized text

This is subscript and superscript

This text is inserted to the document

This text is deleted from the document

11. Text Transformation

You can also transform the text to lowercase, uppercase or make them capitalize.

The quick brown fox jumps over the lazy dog.
The quick brown fox jumps over the lazy dog.
The quick brown fox jumps over the lazy dog.

the quick brown fox jumps over the lazy dog.

THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG.

The Quick Brown Fox Jumps Over The Lazy Dog.

12. Text Coloring

- Colors are the powerful method of conveying important information in website design.
- Bootstrap has handful of emphasis utility classes that can be used for this
 purpose such as showing success message in green color, warning or error
 message in red color, etc.
- Primary: Please read the instructions
 carefully before proceeding.
- Secondary: This is featured has been removed
 from the latest version.
- Success: Your message has been sent
 successfully.
- Info: You must agree with the terms and
 conditions to complete the sign up process.
- Warning: There was a problem with your network
 connection.

```
Danger: An error has been occurred while
submitting your data.
Muted: This paragraph of text is grayed out.
Primary: Please read the instructions carefully before proceeding.

Secondary: This is featured has been removed from the latest version.

Success: Your message has been sent successfully.

Info: You must agree with the terms and conditions to complete the sign up process.

Warning: There was a problem with your network connection.
```

Muted: This paragraph of text is grayed out.

Danger: An error has been occurred while submitting your data.

13. Truncating Long Text

For longer text, you can use the class .text-truncate to truncate the text with an ellipsis.

```
<div class="m-4">
        <div class="row">
        <div class="col-2 text-truncate">
            The quick brown fox jumps over the lazy dog.
        </div>
        </div>
</div>
```

The quic...

14. Text wrapping and Overflow

You can use the class .text-wrap to wrap the text

Similarly, you can use the class .text-nowrap to prevent text from wrapping within an element.

```
<div class="m-4">
  <div class="badge bg-primary text-wrap" style="width: 6rem;">
    This text will wrap.
  </div>
  <div class="bg-warning text-nowrap mt-4" style="width: 6rem;">
    This text will overflow the element's box.
  </div>
</div>
```

This text will wrap.

This text will overflow the element's box.

More Typography Classes

Class	Description
.lead	Makes a paragraph stand out
.text-start	Indicates left-aligned text
.text-break	Prevents long text from breaking layout
.text-center	Indicates center-aligned text
.text-decoration-none	Removes the underline from a link
.text-end	Indicates right-aligned text
.text-nowrap	Indicates no wrap text
.text-lowercase	Indicates lowercased text
.text-uppercase	Indicates uppercased text
.text-capitalize	Indicates capitalized text

Forms

Bootstrap greatly simplifies the process of styling and alignment of form controls like labels, input fields, selectboxes, textareas, buttons, etc. through predefined set of classes.

Bootstrap provides three different types of form layouts:

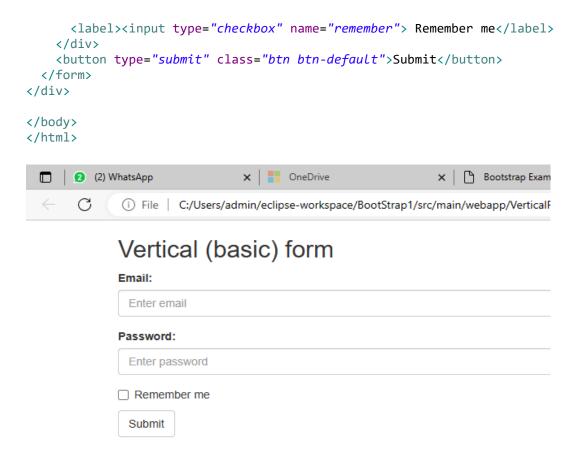
- Vertical Form (default form layout)
- Horizontal Form
- Inline Form

Standard rules for all three form layouts:

- Wrap labels and form controls in <div class="form-group"> (needed for optimum spacing)
- Add class .form-control to all textual <input>, <textarea>, and <select> elements

1. Creating Vertical Form Layout

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  k rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
 <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
 <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script</pre>
</head>
<body>
<div class="container">
  <h2>Vertical (basic) form</h2>
  <form action="/action_page.php">
    <div class="form-group">
      <label for="email">Email:</label>
      <input type="email" class="form-control" id="email" placeholder="Enter</pre>
email" name="email">
    </div>
    <div class="form-group">
      <label for="pwd">Password:</label>
      <input type="password" class="form-control" id="pwd" placeholder="Enter</pre>
password" name="pwd">
    </div>
    <div class="checkbox">
```



2. Bootstrap Inline Form

In an inline form, all of the elements are inline, left-aligned, and the labels are alongside.

Additional rule for an inline form:

• Add class .form-inline to the <form> element

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Bootstrap 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/3.4.1/css/bootstrap.min.css">
        <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
        <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script>
<head>
```

3. Bootstrap Horizontal Form

A horizontal form means that the labels are aligned next to the input field (horizontal) on large and medium screens.

Additional rules for a horizontal form:

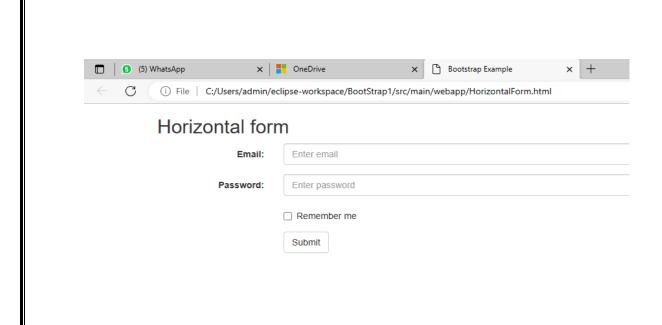
- Add class .form-horizontal to the <form> element
- Add class .control-label to all <label> elements

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Bootstrap Example</title>
```

<body>

```
35
```

```
<meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"</pre>
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
 <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></scrip</pre>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></sc</pre>
ript>
</head>
<body>
<div class="container">
  <h2>Horizontal form</h2>
  <form class="form-horizontal" action="/action_page.php">
    <div class="form-group">
      <label class="control-label col-sm-2" for="email">Email:</label>
      <div class="col-sm-10">
        <input type="email" class="form-control" id="email" placeholder="Enter</pre>
email" name="email">
      </div>
    </div>
    <div class="form-group">
      <label class="control-label col-sm-2" for="pwd">Password:</label>
      <div class="col-sm-10">
        <input type="password" class="form-control" id="pwd"</pre>
placeholder="Enter password" name="pwd">
      </div>
    </div>
    <div class="form-group">
      <div class="col-sm-offset-2 col-sm-10">
        <div class="checkbox">
          <label><input type="checkbox" name="remember"> Remember me</label>
        </div>
      </div>
    </div>
    <div class="form-group">
      <div class="col-sm-offset-2 col-sm-10">
        <button type="submit" class="btn btn-default">Submit</button>
      </div>
    </div>
  </form>
</div>
</body>
</html>
```



Tables

- The HTML tables are used to present data in grid manner like row and columns.
- Using Bootstrap you can greatly improve the appearance of table in a quick and easy way.

1. Bootstrap Basic Table

A basic Bootstrap table has a light padding and only horizontal dividers.

The .table class adds basic styling to a table:

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 k rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
 <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script</pre>
</head>
<body>
<div class="container">
 <h2>Basic Table</h2>
 The .table class adds basic styling (light padding and only horizontal)
dividers) to a table:
 <thead>
     Firstname
      Lastname
      Email
     </thead>
   John
      Doe
      john@example.com
     Mary
      Moe
      mary@example.com
```

```
July
July
Dooley

your of the state of the sta
```

Basic Table

The .table class adds basic styling (light padding and only horizontal dividers) to a table:

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

2. Striped Rows

The .table-striped class adds zebra-stripes to a table:

```
<div class="container">
  <h2>Striped Rows</h2>
  The .table-striped class adds zebra-stripes to a table:
```

Striped Rows

The .table-striped class adds zebra-stripes to a table:

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

3. Bordered Table

The .table-bordered class adds borders on all sides of the table and cells:

<div class="container">

```
<h2>Bordered Table</h2>
The .table-bordered class adds borders to a table:
```

Bordered Table

The .table-bordered class adds borders to a table:

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

4. Hover Rows

The .table-hover class adds a hover effect (grey background color) on table rows:

```
<div class="container">
  <h2>Hover Rows</h2>
  The .table-hover class enables a hover state on table rows:
```

Basic Table

The .table class adds basic styling (light padding and only horizontal dividers) to a table:

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

5. Contextual Classes

Contextual classes can be used to color table rows () or table cells ():

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Bootstrap Example</title>
    <meta charset="utf-8">
```

```
40
```

```
<meta name="viewport" content="width=device-width, initial-scale=1">
 <link rel="stylesheet"</pre>
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
 <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script</pre>
</head>
<body>
<div class="container">
 <h2>Contextual Classes</h2>
 Contextual classes can be used to color table rows or table cells. The
classes that can be used are: .active, .success, .info, .warning, and .danger.
 <thead>
    Firstname
     Lastname
     Email
    </thead>
  Default
     Defaultson
     def@somemail.com
    Success
     Doe
     john@example.com
    Danger
     Moe
     mary@example.com
    Info
     Dooley
     july@example.com
    Warning
     Refs
     bo@example.com
    Active
     Activeson
     act@example.com
    </div>
</body>
```

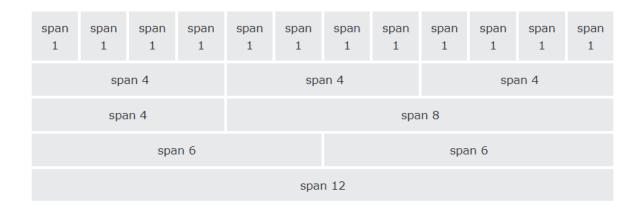
Contextual Classes

Contextual classes can be used to color table rows or table cells. The classes that can be used are: .active, .success, .info, .warning, a

Firstname	Lastname	Email
Default	Defaultson	def@somemail.com
Success	Doe	john@example.com
Danger	Moe	mary@example.com
Info	Dooley	july@example.com
Warning	Refs	bo@example.com
Active	Activeson	act@example.com

Grid System

- Bootstrap's grid system allows up to 12 columns across the page.
- If you do not want to use all 12 column individually, you can group the columns together to create wider columns:



1. Grid Classes

The Bootstrap grid system has four classes:

- **XS** (for phones screens less than 768px wide)
- **Sm** (for tablets screens equal to or greater than 768px wide)
- md (for small laptops screens equal to or greater than 992px wide)
- lg (for laptops and desktops screens equal to or greater than 1200px wide)

Grid System Rules

Some Bootstrap grid system rules:

- Rows must be placed within a .container (fixed-width) or .container-fluid (full-width) for proper alignment and padding
- Use rows to create horizontal groups of columns
- Content should be placed within columns, and only columns may be immediate children of rows
- Predefined classes like .row and .col-sm-4 are available for quickly making grid layouts

• Grid columns are created by specifying the number of 12 available columns you wish to span. For example, three equal columns would use three .col-sm-4

The following is a basic structure of a Bootstrap grid:

2. <u>Bootstrap Grid - Stacked-to-horizontal</u>

- We will create a basic grid system that starts out stacked on extra small devices, before becoming horizontal on larger devices.
- The following example shows a simple "stacked-to-horizontal" two-column layout, meaning it will result in a 50%/50% split on all screens, except for extra small screens, which it will automatically stack (100%):

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Bootstrap 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/3.4.1/css/bootstrap.min.css">
        <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
        <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script>
        <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script>
        </script>
</head>
```

```
<body>
<div class="container">
  <h1>Grid</h1>
  This example demonstrates a 50%/50% split on small, medium and large devices.
On extra small devices, it will stack (100% width).
  Resize the browser window to see the effect.
  <div class="row">
    <div class="col-sm-6" style="background-color:yellow;">
      Bootstrap's grid system allows up to 12 columns across the page.
If you do not want to use all 12 column individually, you can group the columns
together to create wider columns.
    </div>
    <div class="col-sm-6" style="background-color:pink;">
      Rows must be placed within a .container (fixed-width) or .container-fluid
(full-width) for proper alignment and padding
Use rows to create horizontal groups of columns
    </div>
  </div>
</div>
</body>
</html>
```

Grid

This example demonstrates a 50%/50% split on small, medium and large devices. On extra small devices, it will stack (100% width).

Resize the browser window to see the effect.

Bootstrap's grid system allows up to 12 columns across the page. If you do not want to use all 12 column individually, you can group the columns together to create wider columns.

Rows must be placed within a .container (fixed-width) or .container-fluid (full-width) for proper alignment and padding Use rows to create horizontal groups of columns

3. <u>Bootstrap Grid - Small Devices</u>

- Assume we have a simple layout with two columns. We want the columns to be split 25%/75% for small devices.
- Tip: Small devices are defined as having a screen width from 768 pixels to
 991 pixels.
- For small devices we will use the .col-sm-* classes.
- We will add the following classes to our two columns:

44

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

4. Bootstrap Grid - Medium Devices

• On medium devices the design may be better as a 50%/50% split.

<head>

<title>Bootstrap Example</title>

<meta charset="utf-8">

- Tip: Medium devices are defined as having a screen width from 992 pixels to 1199 pixels.
- For medium devices we will use the .col-md-* classes.
- Now we will add the column widths for medium devices:

```
<div class="col-sm-3 col-md-6">....</div>
<div class="col-sm-9 col-md-6">....</div>
```

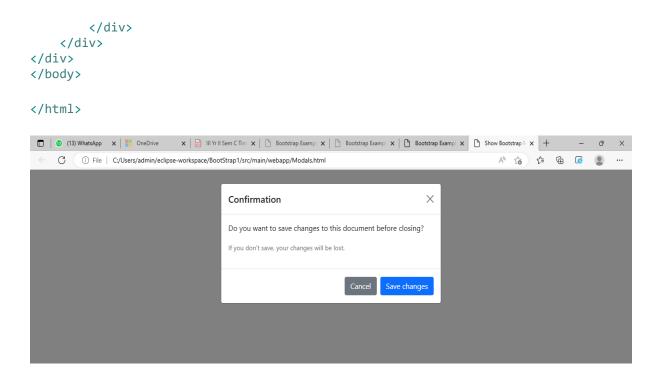
5. <u>Bootstrap Grid - Large Devices</u>

- On large devices the design may be better as a 33%/66% split.
- Tip: Large devices are defined as having a screen width from 1200 pixels and above.
- For large devices we will use the .col-lg-* classes.
- So now we will add the column widths for large devices:

```
• <div class="col-sm-3 col-md-6 col-lg-4">....</div>
      <div class="col-sm-9 col-md-6 col-lg-8">....</div>
```

- Modal is basically a dialog box or popup window that is used to provide important information to the user or prompt user to take necessary actions before moving on.
- Modals are widely used to warn users for situations like session time out or to receive their final confirmation before going to perform any critical actions such as saving or deleting important data.

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<title>Show Bootstrap Modal on Page Load Using jQuery</title>
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
rel="stylesheet">
<script src="https://code.jquery.com/jquery-3.5.1.min.js"></script>
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js"
></script>
<script>
      $(document).ready(function(){
            $("#myModal").modal('show');
</script>
</head>
<body>
<div class="m-4">
    <div id="myModal" class="modal fade" tabindex="-1">
       <div class="modal-dialog">
            <div class="modal-content">
                <div class="modal-header">
                    <h5 class="modal-title">Confirmation</h5>
                    <button type="button" class="btn-close" data-bs-</pre>
dismiss="modal"></button>
               </div>
               <div class="modal-body">
                    Do you want to save changes to this document before
closing?
                   <small>If you don't save, your
changes will be lost.
               </div>
               <div class="modal-footer">
                    <button type="button" class="btn btn-secondary" data-bs-</pre>
dismiss="modal">Cancel/button>
                    <button type="button" class="btn btn-primary">Save
changes</button>
               </div>
           </div>
```



The "Modal content" part:

- The <div> with class="modal-content" styles the modal (border, background-color, etc.). Inside this <div>, add the modal's header, body, and footer.
- The .modal-header class is used to define the style for the header of the modal.
 The <button> inside the header has a data-dismiss="modal" attribute which closes the modal if you click on it. The .close class styles the close button, and the .modal-title class styles the header with a proper line-height.
- The .modal-body class is used to define the style for the body of the modal. Add any HTML markup here; paragraphs, images, videos, etc.
- The .modal-footer class is used to define the style for the footer of the modal.
 Note that this area is right aligned by default.

Drop Down

- The dropdown menu is typically used inside the navigation header to display a list of related links when a user mouse hover or click on the trigger element.
- We can use the Bootstrap dropdown plugin to add toggleable dropdown menus.

1. Basic 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-toggle="dropdown" attribute.
- The .caret class creates a caret arrow icon (▼), which indicates that the button is a dropdown.
- Add the .dropdown-menu class to a element to actually build the dropdown menu.

```
<!DOCTYPE html>
<html>
<head>
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link rel="stylesheet"</pre>
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
 <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
 <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script</pre>
</head>
<body>
<div class="container">
 <h2>Dropdowns</h2>
 The .dropdown class is used to indicate a dropdown menu.
 Vise the .dropdown-menu class to actually build the dropdown menu.
  To open the <u>dropdown</u> menu, use a button or a link with a class of .<u>dropdown</u>-
toggle and data-toggle="dropdown".
 <div class="dropdown">
   <button class="btn btn-primary dropdown-toggle" type="button" data-</pre>
toggle="dropdown">Dropdown Example
   <span class="caret"></span></button>
    <a href="#">HTML</a>
     <a href="#">CSS</a>
     <a href="#">JavaScript</a>
```

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

Dropdowns

The .dropdown class is used to indicate a dropdown menu.

Use the .dropdown-menu class to actually build the dropdown menu.

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



2. Dropdown Divider

The .divider class is used to separate links inside the dropdown menu with a thin horizontal border:

cli class="divider">



3. Dropdown Header

The .dropdown-header class is used to add headers inside the dropdown menu:

Ex: Dropdown header 1

```
<div class="container">
  <h2>Dropdowns</h2>
  The .dropdown-header class is used to add headers inside the dropdown
menu:
  <div class="dropdown">
```

Dropdowns

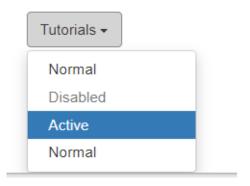
The .dropdown-header class is used to add headers inside the dropdown menu:



4. Disable and Active items

- Highlight a specific dropdown item with the .active class (adds a blue background color).
- To disable an item in the dropdown menu, use the .disabled class

```
<a href="#">CSS</a>
<a href="#">HTML</a>
```



5. Dropdown Position

To right-align the dropdown, add the .dropdown-menu-right class to the element with .dropdown-menu:

Dropdowns

The .dropdown-header class is used to add headers inside the dropdown menu:

Full Stack Development ▼



6. Dropup

If you want the dropdown menu to expand upwards instead of downwards, change the <div>element with class="dropdown" to "dropup":

<div class="dropup">



Tabs

Tabs are created with :

Tip: Also mark the current page with .

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link rel="stylesheet"</pre>
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
 <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
 <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script</pre>
</head>
<body>
<div class="container">
 <h3>Tabs</h3>
 <a href="#">Home</a>
   <a href="#">Front-End Tools</a>
   <a href="#">Back-End Tools</a>
   <a href="#">Databases</a>
 <br>
</div>
</body>
</html>
```

Tabs

Home

Front-End Tools

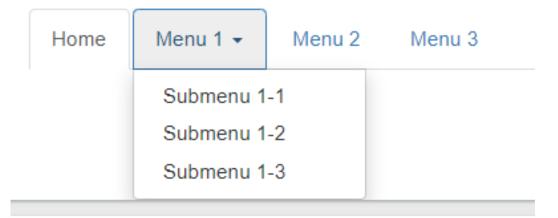
Back-End Tools

Databases

Tabs With Dropdown Menu

Tabs can also hold dropdown menus.

Tabs With Dropdown Menu



Tooltip

- A tooltip is a small pop up that appears when user places the mouse pointer over an element such as link or buttons to provide hint or information about the element being hovered.
- Tooltips can be very helpful for the new visitors of your website because they enable the user to know the purpose of icons and links by placing the mouse pointer over them.

1. Creating a Tooltip:

- To create a tooltip, add the data-toggle="tooltip" attribute to an element.
- Use the title attribute to specify the text that should be displayed inside the tooltip:

```
<a href="#" data-toggle="tooltip" title="Hooray!">Hover over me</a>
```

Example:

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"</pre>
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
  <scrint
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script</pre>
</head>
<body>
<div class="container">
  <h3>Tooltip Example</h3>
  <a href="#" data-toggle="tooltip" title="Full Stack Development!">FSD</a>
</div>
<script>
$(document).ready(function(){
 $('[data-toggle="tooltip"]').tooltip();
});
</script>
```

```
</body>
```



2. Positioning Tooltips

- By default, the tooltip will appear on top of the element.
- Use the data-placement attribute to set the position of the tooltip on top, bottom, left or the right side of the element:

```
<a href="#" data-toggle="tooltip" data-placement="top" title="Hooray!">Hover</a>
<a href="#" data-toggle="tooltip" data-placement="bottom" title="Hooray!">Hover</a>
<a href="#" data-toggle="tooltip" data-placement="left" title="Hooray!">Hover</a>
<a href="#" data-toggle="tooltip" data-placement="right" title="Hooray!">Hover</a>
```

Tooltip Example

The data-placement attribute specifies the tooltip position.

```
Top Bottom Left Right
Hooray!
```

Collapse

- Collapsibles are useful when you want to hide and show large amount of content.
- The .collapse class indicates a collapsible element, this is the content that will be shown or hidden with a click of a button.
- To control (show/hide) the collapsible content, add the data-toggle="collapse" attribute to an <a> or a <button> element. Then add the data-target="#id" attribute to connect the button with the collapsible content

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"</pre>
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
 <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
 <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script</pre>
</head>
<body>
<div class="container">
  <h2>Simple Collapsible</h2>
  <Click on the button to toggle between showing and hiding content.</p>
  <button type="button" class="btn btn-info" data-toggle="collapse" data-</pre>
target="#demo">Simple collapsible</button>
  <div id="demo" class="collapse">
    Collapsibles are useful when you want to hide and show large amount of content
  </div>
</div>
</body>
</html>
```

Simple Collapsible

Click on the button to toggle between showing and hiding content.

Simple collapsible

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

1. collapse in

By default, the collapsible content is hidden. However, you can add the .in class to show the content by default:

```
<div id="demo" class="collapse in">
Collapsibles are useful when you want to hide and show large amount of content....
</div>
```

2. Collapsible Panel

Collapsible Panel

Click on the collapsible panel to open and close it.

Collapsible panel
Panel Body
Panel Footer

200

3. Collapsible List Group

```
<div class="panel-group">
 <div class="panel panel-default">
  <div class="panel-heading">
    <h4 class="panel-title">
     <a data-toggle="collapse" href="#collapse1">Collapsible list
group</a>
    </h4>
  </div>
  <div id="collapse1" class="panel-collapse collapse">
    One
     Two
     Three
    <div class="panel-footer">Footer</div>
  </div>
 </div>
</div>
```

Collapsible List Group

Click on the collapsible panel to open and close it.

Collapsible list group
One
Two
Three
Footer

Accordion

- Accordion is a series of panels stacked on the top of each other.
- Accordion menus and widgets are widely used in the web applications to manage the large amount of content and navigation lists in a small amount area.
- With Bootstrap collapse plugin you can either create accordions or show and hide content without writing any JavaScript code.

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<title>Bootstrap Accordion</title>
ink
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
rel="stylesheet">
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js"
></script>
</head>
<body>
<div class="m-4">
    <div class="accordion" id="myAccordion">
        <div class="accordion-item">
            <h2 class="accordion-header" id="headingOne">
                <button type="button" class="accordion-button collapsed" data-bs-</pre>
toggle="collapse" data-bs-target="#collapseOne">1. What is HTML?</button>
            <div id="collapseOne" class="accordion-collapse collapse" data-bs-</pre>
parent="#myAccordion">
                <div class="card-body">
                    HTML stands for HyperText Markup Language. HTML is the
standard markup language for describing the structure of web pages. <a
href="https://www.tutorialrepublic.com/html-tutorial/" target="_blank">Learn
more.
                </div>
            </div>
        </div>
        <div class="accordion-item">
            <h2 class="accordion-header" id="headingTwo">
                <button type="button" class="accordion-button" data-bs-</pre>
toggle="collapse" data-bs-target="#collapseTwo">2. What is Bootstrap?</button>
            <div id="collapseTwo" class="accordion-collapse collapse show" data-</pre>
bs-parent="#myAccordion">
                <div class="card-body">
                    Bootstrap is a sleek, intuitive, and powerful front-end
framework for faster and easier web development. It is a collection of CSS and
```

```
HTML conventions. <a href="https://www.tutorialrepublic.com/twitter-bootstrap-
tutorial/" target="_blank">Learn more.</a>
                 </div>
            </div>
        </div>
        <div class="accordion-item">
            <h2 class="accordion-header" id="headingThree">
                 <button type="button" class="accordion-button collapsed" data-bs-</pre>
toggle="collapse" data-bs-target="#collapseThree">3. What is CSS?</button>
            <div id="collapseThree" class="accordion-collapse collapse" data-bs-</pre>
parent="#myAccordion">
                 <div class="card-body">
                     CSS stands for Cascading Style Sheet. CSS allows you to
specify various style properties for a given HTML element such as colors,
backgrounds, fonts etc. <a href="https://www.tutorialrepublic.com/css-tutorial/"</pre>
target="_blank">Learn more.</a>
                 </div>
            </div>
        </div>
    </div>
</div>
</body>
</html>
   1. What is HTML?
   2. What is Bootstrap?
  Bootstrap is a sleek, intuitive, and powerful front-end framework for faster and easier web
  development. It is a collection of CSS and HTML conventions. Learn more.
   3. What is CSS?
```

Carousel

- The carousel also known as slideshow or image slider is some of the best way of showcasing the huge amount of contents within a small space on the web pages.
- It is a dynamic presentation of contents where text and images are made visible or accessible to the user by cycling through several items.
- Carousels require the use of an id (in this case id="myCarousel") for carousel controls to function properly.
- The class="carousel" specifies that this <diy> contains a carousel.
- The .slide class adds a CSS transition and animation effect, which makes the items slide when showing a new item. Omit this class if you do not want this effect.
- The data-ride="carousel" attribute tells Bootstrap to begin animating the carousel immediately when the page loads.

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link rel="stylesheet"</pre>
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.3/jquery.min.js"></script>
 <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script</pre>
</head>
<body>
<div class="container">
 <h2>Carousel Example</h2>
 <div id="myCarousel" class="carousel slide" data-ride="carousel">
   <!-- Indicators -->
   data-target="#myCarousel" data-slide-to="0" class="active">
     <!-- Wrapper for slides -->
   <div class="carousel-inner">
     <div class="item active">
```

```
<img src="1.jpg" alt="Scene1" style="width:100%;">
      </div>
      <div class="item">
        <img src="2.jpg" alt="Scene2" style="width:100%;">
      </div>
      <div class="item">
        <img src="3.jpg" alt="Scene3" style="width:100%;">
      </div>
    </div>
    <!-- Left and right controls -->
    <a class="left carousel-control" href="#myCarousel" data-slide="prev">
      <span class="glyphicon glyphicon-chevron-left"></span>
      <span class="sr-only">Previous</span>
    </a>
    <a class="right carousel-control" href="#myCarousel" data-slide="next">
      <span class="glyphicon glyphicon-chevron-right"></span>
      <span class="sr-only">Next</span>
    </a>
  </div>
</div>
</body>
</html>
```

Carousel Example

C File C:/Users/admin/eclipse-workspace/BootStrap1/src/main/webapp/Carosel.html

