

# Bootstrap

- Bootstrap is the most popular HTML, CSS, and JavaScript framework for developing responsive designs.
- **Responsive** web design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.

- Bootstrap was developed by Mark Otto and Jacob Thornton at Twitter, and released as an open source product in August 2011 on GitHub.

## **Advantages of Bootstrap:**

- **Easy to use:** Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
- **Responsive features:** Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
- **Mobile-first approach:** In Bootstrap 3, mobile-first styles are part of the core framework
- **Browser compatibility:** Bootstrap is compatible with all modern browsers (Chrome, Firefox, Internet Explorer, Safari, and Opera)

# Need

## Reason #1. Easy to get started

- CSS Pre-processing is great and every front end developer should learn it. However not everyone is using it. There are still many designers creating and managing CSS files the same old way. Bootstrap offers LESS files for those of us who know how to use it, but it also provides the plain old CSS file for those don't want to use CSS pre-processing.
- To take advantage of what Bootstrap has to offer, you just have to download the files from [Bootstrap on Github](#) and after unzipping, include the files in the head of your HTML document.
- This example HTML document includes the bootstrap framework with its default styling and every single components and JavaScript plugins.

## Reason #2. Great grid system

- Bootstrap is built on responsive 12-column grids, layouts and components. Whether you need a fixed grid or a responsive, its only matter of a few changes. Offsetting & Nesting of columns is also possible in both fixed and fluid width layouts.
- Another useful set of features are the responsive utility classes using which you can make a certain block of content appear or hide only on devices based on the size of their screen. Very handy when you want to hide some content based on screen size. Adding a class such as `.visible-desktop` to a element, will make it visible only for desktop users. There are similar classes for tablets and phones

### Reason #3. Base styling for most HTML elements

- A website has many different elements such as headings, lists, tables, buttons, forms, etc. All these fundamental HTML elements have been styled and enhanced with extensible classes.
- The HTML elements for which styles are provided are:
  - Typography
  - Code
  - Tables
  - Forms
  - Buttons
  - Images
  - Icons

## Reason #4. Extensive list of components

- Whether you need drop down menus, pagination or alert boxes, Bootstrap has got your covered. Styling of every single element follows a consistent theme
- Some of the components pre styled are:
- Dropdowns
- Button Groups
- Navigation Bar
- Breadcrumbs
- Labels & Badges
- Alerts
- Progress Bar
- And many others.

## Reason #5. Bundled Javascript plugins

- The components such as drop down menu are made interactive with the numerous JavaScript plugins bundled in the bootstrap package.
- If you project requires sliders, tabs, accordions, then you no longer have to try and test numerous different plugins across the web. Adding these functionalities is just a matter of adding few lines of code and you are all set. With the customization option you can also choose only certain plugins to keep the file size to a minimum.



## Reason #6. Good documentation

- Not only does Bootstrap offer styling for almost every element a typical website or web application requires, it also provides a great documentation with examples and demo that only make it more easier for even someone new.

# Create Page With Bootstrap

## 1. Add the HTML5 doctype

- Bootstrap uses HTML elements and CSS properties that require the HTML5 doctype.

## 2. Bootstrap 3 is mobile-first

- Bootstrap 3 is designed to be responsive to mobile devices. Mobile-first styles are part of the core framework.
- The **width=device-width** part sets the width of the page to follow the screen-width 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

- Bootstrap also requires a containing element to wrap site contents.

There are two container classes to choose from:

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

```
<!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="http://maxcdn.bootstrapcdn.com/boot
strap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jq
uery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/
bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h1>My First Bootstrap Page</h1>
  <p>This is some text.</p>
</div>

</body>
</html>
```

# Bootstrap Grid System

- Bootstrap's grid system 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:

span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1
span 4				span 4				span 4			
span 4				span 8							
span 6						span 6					
span 12											

Bootstrap's grid system is responsive, and the columns will re-arrange automatically depending on the screen size.

## **Grid Classes**

The Bootstrap grid system has four classes:

- xs (for phones)
- sm (for tablets)
- md (for desktops)
- lg (for larger desktops)

The classes above can be combined to create more dynamic and flexible layouts.

# Grid Structure

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

```
<!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="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container-fluid">
  <h1>Hello World!</h1>
  <p>Resize the browser window to see the effect.</p>
  <div class="row">
    <div class="col-sm-4" style="background-color:lavender;">.col-sm-4</div>
    <div class="col-sm-4" style="background-color:lavenderblush;">.col-sm-4</div>
    <div class="col-sm-4" style="background-color:lavender;">.col-sm-4</div>
  </div>
</div>

</body>
</html>
```



# Nested Columns

```
<!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="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container-fluid">
  <h1>Hello World!</h1>
  <p>Resize the browser window to see the effect.</p>
  <div class="row">
    <div class="col-sm-8" style="background-color:lavender;">.col-sm-8
      <div class="row">
        <div class="col-sm-6" style="background-color:lightcyan;">.col-sm-6</div>
        <div class="col-sm-6" style="background-color:lightgray;">.col-sm-6</div>
      </div>
    </div>
    <div class="col-sm-4" style="background-color:lavenderblush;">.col-sm-4</div>
  </div>
</div>

</body>
</html>
```

# Mixed: Mobile And Desktop

The Bootstrap classes can be combined to create more dynamic and flexible layouts.

```
<!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="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container-fluid">
  <h1>Hello World!</h1>
  <p>Resize the browser window to see the effect.</p>
  <div class="row">
    <div class="col-xs-9 col-md-7" style="background-color:red;">.col-xs-9 .col-md-7</div>
    <div class="col-xs-3 col-md-5" style="background-color:lavender;">.col-xs-3 .col-md-5</div>
  </div>
  <div class="row">
    <div class="col-xs-6 col-md-10" style="background-color:lavenderblush;">.col-xs-6 .col-md-10</div>
    <div class="col-xs-6 col-md-2" style="background-color:lightgrey;">.col-xs-6 .col-md-2</div>
  </div>
  <div class="row" style="background-color:lightcyan;">
    <div class="col-xs-6">.col-xs-6</div>
    <div class="col-xs-6">.col-xs-6</div>
  </div>
</div>

</body>
</html>
```

# Clear Floats

Clear floats (with the .clearfix class) at specific breakpoints to prevent strange wrapping with uneven content:

```
<!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="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container-fluid">
  <h1>Hello World!</h1>
  <div class="row">
    <div class="col-xs-6 col-sm-3" style="background-color:lavender;">
      Column 1<br>
      Resize the browser window to see the effect. Also try to remove the div clearfix line and see what happens.
    </div>
    <div class="col-xs-6 col-sm-3" style="background-color:lavenderblush;">Column 2</div>
    <!-- Add clearfix for only the required viewport -->
    <div class="clearfix visible-xs"></div>
    <div class="col-xs-6 col-sm-3" style="background-color:lightcyan;">Column 3</div>
    <div class="col-xs-6 col-sm-3" style="background-color:lightgray;">Column 4</div>
  </div>
</div>

</body>
</html>
```

## Offsetting Columns

Move columns to the right using `.col-md-offset-*` classes. These classes increase the left margin of a column by `*` columns:

```
<!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="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container-fluid">
  <h1>Hello World!</h1>
  <p>Resize the browser window to see the effect.</p>
  <div class="row" style="background-color:lavender;">
    <div class="col-sm-5 col-md-6" style="background-color:lightgray;">.col-sm-5 .col-md-6</div>
    <div class="col-sm-5 col-sm-offset-2 col-md-6 col-md-offset-0" style="background-color:lightcyan;">.col-sm-5 .col-
      sm-offset-2 .col-md-6 .col-md-offset-0</div>
  </div>
</div>

</body>
</html>
```

# Push And Pull - Change Column Ordering

Change the order of the grid columns with `.col-md-push-*` and `.col-md-pull-*` classes:

```
<!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="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container-fluid">
  <h1>Hello World!</h1>
  <p>Resize the browser window to see the effect.</p>
  <div class="row">
    <div class="col-sm-4 col-sm-push-8" style="background-color:lavender;">.col-sm-4 .col-sm-push-8</div>
    <div class="col-sm-8 col-sm-pull-4" style="background-color:lavenderblush;">.col-sm-8 .col-sm-pull-4</div>
  </div>
</div>

</body>
</html>
```

# **Responsive Utilities**

- These classes are used to show and/or hide content by device via media queries.
- Use one or a combination of the available classes for toggling content across viewport breakpoints:

Classes	Extra small devicesPhones (<768px)	Small devicesTablets (≥768px)	Medium devicesDesктоs (≥992px)	Large devicesDesктоs (≥1200px)
.visible-xs-*	Visible	Hidden	Hidden	Hidden
.visible-sm-*	Hidden	Visible	Hidden	Hidden
.visible-md-*	Hidden	Hidden	Visible	Hidden
.visible-lg-*	Hidden	Hidden	Hidden	Visible
.hidden-xs	Hidden	Visible	Visible	Visible
.hidden-sm	Visible	Hidden	Visible	Visible
.hidden-md	Visible	Visible	Hidden	Visible
.hidden-lg	Visible	Visible	Visible	Hidden

- As of v3.2.0, the `.visible-*-*` classes for come in three variations, one for each CSS display property value:

Group of classes	CSS display
<code>visible-*-block</code>	<code>display: block;</code>
<code>.visible-*-inline</code>	<code>display: inline;</code>
<code>.visible-*-inline-block</code>	<code>display: inline-block;</code>

E.g. for small (`sm`) screens, the available `.visible-*-*` classes are: `.visible-sm-block`, `.visible-sm-inline`, and `.visible-sm-inline-block`.

The classes `.visible-xs`, `.visible-sm`, `.visible-md`, and `.visible-lg` are **deprecated as of v3.2.0**.



```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
    href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Example</h2>
  <p>Resize this page to see how the text below changes:</p>
  <h1 class="visible-xs">This text is shown only on an EXTRA SMALL screen.</h1>
  <h1 class="visible-sm">This text is shown only on a SMALL screen.</h1>
  <h1 class="visible-md">This text is shown only on a MEDIUM screen.</h1>
  <h1 class="visible-lg">This text is shown only on a LARGE screen.</h1>
</div>

</body>
</html>
```

# Bootstrap Basic Table

The .table class adds basic styling to a table:

## Striped Rows

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

## Bordered Table

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

## Hover Rows

- The .table-hover class enables a hover state on table rows

## Condensed Table

- The .table-condensed class makes a table more compact by cutting cell padding in half

## Contextual Classes

Contextual classes can be used to color table rows (<tr>) or table cells (<td>):

Class	Description
.active	Applies the hover color to the table row or table cell
.success	Indicates a successful or positive action
.info	Indicates a neutral informative change or action
.warning	Indicates a warning that might need attention
.danger	Indicates a dangerous or potentially negative action

```
<!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="http://maxcdn.bootstrapcdn.com/boo
    tstrap/3.3.7/css/bootstrap.min.css">
  <script
    src="https://ajax.googleapis.com/ajax/libs/jq
    uery/1.12.4/jquery.min.js"></script>
  <script
    src="http://maxcdn.bootstrapcdn.com/boots
    trap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Contextual Classes</h2>
  <p>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.</p>
```

```
<table class="table">
  <thead>
    <tr>
      <th>Firstname</th>
      <th>Lastname</th>
      <th>Email</th>
    </tr>
  </thead>
  <tbody>
    <tr class="success">
      <td>John</td>
      <td>Doe</td>
      <td>john@example.com</td>
    </tr>
    <tr class="danger">
      <td>Mary</td>
      <td>Moe</td>
      <td>mary@example.com</td>
    </tr>
    <tr class="info">
      <td>July</td>
      <td>Dooley</td>
      <td>july@example.com</td>
    </tr>
  </tbody>
</table>
</div>
</body>
</html>
```

## Responsive Tables

- The .table-responsive class creates a responsive table. The table will then scroll horizontally on small devices (under 768px). When viewing on anything larger than 768px wide, there is no difference.

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-
    scale=1">
  <link rel="stylesheet"
    href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/boot
    strap.min.css">
  <script
    src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.
    min.js"></script>
  <script
    src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstr
    ap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Table</h2>
  <p>The .table-responsive class creates a responsive table which will
    scroll horizontally on small devices (under 768px). When viewing
    on anything larger than 768px wide, there is no difference:</p>
  <div class="table-responsive">
    <table class="table">
```

```
<thead>
  <tr>
    <th>#</th>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
    <th>City</th>
    <th>Country</th>
  </tr>
</thead>
<tbody>
  <tr>
    <td>1</td>
    <td>Anna</td>
    <td>Pitt</td>
    <td>35</td>
    <td>New York</td>
    <td>USA</td>
  </tr>
</tbody>
</table>
</div>
</div>

</body>
</html>
```

# Bootstrap CSS Helper Classes

## Text :

- Add meaning through text-colors with the classes below. Links will darken on hover:

Class	Description
.text-muted	Text styled with class "text-muted"
.text-primary	Text styled with class "text-primary"
.text-success	Text styled with class "text-success"
.text-info	Text styled with class "text-info"
.text-warning	Text styled with class "text-warning"
.text-danger	Text styled with class "text-danger"

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
    href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Text</h2>
  <p class="text-info">This paragraph is styled with class "text-info".</p>
  <a class="text-info" href="default.asp">This link is styled with class "text-info".</a>
</div>

</body>
</html>
```

## Background:

- Add meaning through background-colors with the classes below. Links will darken on hover just like text classes:

Class	Description
.bg-primary	Table cell is styled with class "bg-primary"
.bg-success	Table cell is styled with class "bg-success"
.bg-info	Table cell is styled with class "bg-info"
.bg-warning	Table cell is styled with class "bg-warning"
.bg-danger	Table cell is styled with class "bg-danger"



# Other

Class	Description
<code>.pull-left</code>	Floats an element to the left
<code>.pull-right</code>	Floats an element to the right
<code>.center-block</code>	Sets an element to <code>display:block</code> with <code>margin-right:auto</code> and <code>margin-left:auto</code>
<code>.clearfix</code>	Clears floats
<code>.show</code>	Forces an element to be shown
<code>.hidden</code>	Forces an element to be hidden
<code>.sr-only</code>	Hides an element to all devices except screen readers
<code>.sr-only-focusable</code>	Combine with <code>.sr-only</code> to show the element again when it is focused (e.g. by a keyboard-only user)
<code>.text-hide</code>	Helps replace an element's text content with a background image
<code>.close</code>	Indicates a close icon
<code>.caret</code>	Indicates dropdown functionality (will reverse automatically in dropup menus)

# Bootstrap Images

## <img> Classes

- The classes below can be used to style any image:

Class	Description
.img-rounded	Adds rounded corners to an image (not available in IE8)
.img-circle	Shapes the image to a circle (not available in IE8)
.img-thumbnail	Shapes the image to a thumbnail
.img-responsive	Makes an image responsive (will scale nicely to the parent element)

## Responsive Images

- Create responsive images by adding an .img-responsive class to the <img> tag. The image will then scale nicely to the parent element.
- The .img-responsive class applies max-width: 100%, height: auto, and display: block to the image:

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
    href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Image</h2>
  <p>The .img-responsive class makes the image scale nicely to the parent element (resize the
    browser window to see the effect):</p>
  
</div>

</body>
</html>
```

# **Bootstrap CSS Buttons**

- Button colors
- Button Sizes
- Active/Disabled Buttons
- Block Level Button

## Button Classes

- The classes below can be used to style any `<a>`, `<button>`, or `<input>` element:

Class	Description
<code>.btn</code>	Adds basic styling to any button
<code>.btn-default</code>	Indicates a default/standard button
<code>.btn-primary</code>	Provides extra visual weight and identifies the primary action in a set of buttons
<code>.btn-success</code>	Indicates a successful or positive action
<code>.btn-info</code>	Contextual button for informational alert messages
<code>.btn-warning</code>	Indicates caution should be taken with this action
<code>.btn-danger</code>	Indicates a dangerous or potentially negative action
<code>.btn-link</code>	Makes a button look like a link (will still have button behavior)
<code>.btn-lg</code>	Makes a large button
<code>.btn-sm</code>	Makes a small button
<code>.btn-xs</code>	Makes an extra small button
<code>.btn-block</code>	Makes a block-level button (spans the full width of the parent element)
<code>.active</code>	Makes the button appear pressed
<code>disabled</code>	Makes the button disabled

# Bootstrap CSS Forms

Individual form controls automatically receive some global styling with Bootstrap.

- All textual `<input>`, `<textarea>`, and `<select>` elements with `class="form-control"` are set to `width: 100%`; by default.

## Standard rules for Bootstrap forms:

- Add `role="form"` to the `<form>` element (helps improve accessibility for people using screen readers)
- Wrap labels and form controls in a `<div>` element with `class="form-group"` (needed for optimum spacing)
- Add `class="form-control"` to all textual `<input>`, `<textarea>`, and `<select>` elements

## Simple Vertical form (Default)

```
<form role="form">
  <div class="form-group">
    <label for="email">Email address:</label>
    <input type="email" class="form-control" id="email">
  </div>
  <div class="form-group">
    <label for="pwd">Password:</label>
    <input type="password" class="form-control" id="pwd">
  </div>
  <div class="checkbox">
    <label><input type="checkbox"> Remember me</label>
  </div>
  <button type="submit" class="btn btn-
default">Submit</button>
</form>
```



# <form> Classes

Class	Description
.form-inline	Makes a <form> left-aligned with inline-block controls (This only applies to forms within viewports that are at least 768px wide)
.form-horizontal	Aligns labels and groups of form controls in a horizontal layout

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Horizontal form</h2>
  <form class="form-horizontal" role="form">
    <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 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" placeholder="Enter password">
      </div>
    </div>
    <div class="form-group">
      <div class="col-sm-offset-2 col-sm-10">
        <div class="checkbox">
          <label><input type="checkbox"> 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>
```

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Inline form</h2>
  <p>Make the viewport larger than 768px wide to see that all of the form elements are inline, left aligned, and the labels are alongside.</p>
  <form class="form-inline" role="form">
    <div class="form-group">
      <label for="email">Email:</label>
      <input type="email" class="form-control" id="email" placeholder="Enter email">
    </div>
    <div class="form-group">
      <label for="pwd">Password:</label>
      <input type="password" class="form-control" id="pwd" placeholder="Enter password">
    </div>
    <div class="checkbox">
      <label><input type="checkbox"> Remember me</label>
    </div>
    <button type="submit" class="btn btn-default">Submit</button>
  </form>
</div>

</body>
</html>
```

# Bootstrap Pagination

- To create a basic pagination, add the .pagination class to an <ul> element:

## Active State

- The active state shows what is the current page:
- Add class .active to let the user know which page he/she is on:

## Disabled State

- A disabled link cannot be clicked:

## Pagination Sizing

- Pagination blocks can also be sized to a larger size or a smaller size:
- Add class `.pagination-lg` for larger blocks or `.pagination-sm` for smaller blocks:

## Breadcrumbs

- Another form for pagination, is breadcrumbs:
- The `.breadcrumb` class indicates the current page's location within a navigational hierarchy:

```
<!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="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Pagination</h2>
  <p>The .pagination class provides pagination links:</p>
  <ul class="pagination">
    /*<ul class="pagination pagination-lg"> */
    /* <ul class="breadcrumb"> */
    <li><a href="#">1</a></li>
    <li class="active"><a href="#">2</a></li>
    <li><a href="#">3</a></li>
    <li class="disabled"><a href="#">4</a></li>
    <li><a href="#">5</a></li>
  </ul>
</div>
</body>
</html>
```

# Bootstrap Navigation Bar

- A navigation bar is a navigation header that is placed at the top of the page
- With Bootstrap, a navigation bar can extend or collapse, depending on the screen size.
- A standard navigation bar is created with

**<nav class="navbar navbar-default">**

## Inverted Navigation Bar

- If you don't like the style of the default navigation bar, Bootstrap provides an alternative, black navbar
- Just change the `.navbar-default` class into `.navbar-inverse`

## Fixed Navigation Bar

- The navigation bar can also be fixed at the top or at the bottom of the page.
- A fixed navigation bar stays visible in a fixed position (top or bottom) independent of the page scroll.
- The **`.navbar-fixed-top`** class makes the navigation bar fixed at the top
- The **`.navbar-fixed-bottom`** class makes the navigation bar stay at the bottom



```

<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Case</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</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-target="#myNavbar">
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
      </button>
      <a class="navbar-brand" href="#">WebSiteName</a>
    </div>
    <div class="collapse navbar-collapse" id="myNavbar">
      <ul class="nav navbar-nav">
        <li class="active"><a href="#">Home</a></li>
        <li class="dropdown">
          <a class="dropdown-toggle" data-toggle="dropdown" href="#">Page 1 <span class="caret"></span></a>
          <ul class="dropdown-menu">
            <li><a href="#">Page 1-1</a></li>
            <li><a href="#">Page 1-2</a></li>
            <li><a href="#">Page 1-3</a></li>
          </ul>
        </li>
        <li><a href="#">Page 2</a></li>
        <li><a href="#">Page 3</a></li>
      </ul>
      <ul class="nav navbar-nav navbar-right">
        <li><a href="#"><span class="glyphicon glyphicon-user"></span> Sign Up</a></li>
        <li><a href="#"><span class="glyphicon glyphicon-log-in"></span> Login</a></li>
      </ul>
    </div>
  </div>
</nav>

<div class="container">
  <h3>Collapsible Navbar</h3>
  <p>In this example, the navigation bar is hidden on small screens and replaced by a button in the top right corner (try to re-size this window).</p>
  <p>Only when the button is clicked, the navigation bar will be displayed.</p>
</div>

</body>
</html>

```

- Navigation Bar With Dropdown
- Right-Aligned Navigation Bar

The .navbar-right class is used to right-align navigation bar buttons.

- Collapsing The Navigation Bar
- The navigation bar takes up too much space on a small screen.
- We should hide the navigation bar; and only show it when it is needed.
- `class="collapse navbar-collapse"`

# Bootstrap Dropdowns

- 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 `<ul>` element to actually build the dropdown menu.
- `<a class="dropdown-toggle" data-toggle="dropdown" href="#">Page 1 <span class="caret"></span></a>`

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Dropdowns</h2>
  <p>The .dropdown class is used to indicate a dropdown menu.</p>
  <p>Use the .dropdown-menu class to actually build the dropdown menu.</p>
  <p>To open the dropdown menu, use a button or a link with a class of .dropdown-toggle and data-toggle="dropdown".</p>
```

## <div class="dropdown">

```
  <button class="btn btn-primary dropdown-toggle" type="button" data-toggle="dropdown">Dropdown Example
  <span class="caret"></span></button>
  <ul class="dropdown-menu">
    <li><a href="#">HTML</a></li>
    <li><a href="#">CSS</a></li>
    <li><a href="#">JavaScript</a></li>
  </ul>
</div>
</div>

</body>
</html>
```

## Dropdown Divider

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

```
<li class="divider"></li>
```

## Dropdown Header

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

```
<li class="dropdown-header">Dropdown header 1</li>
```

## Disable an Item

- To disable an item in the dropdown menu, use the .disabled class

```
<li class="disabled"><a href="#">CSS</a></li>
```

## Dropdown Position

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

```
<ul class="dropdown-menu dropdown-menu-right">
```

## Dropup

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

# Bootstrap Plugins

# Bootstrap JS Modal

## JS Modal (modal.js)

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

Class	Description
.modal	Creates a modal
.modal-content	Styles the modal properly with border, background-color, etc. Use this class to add the modal's header, body, and footer.
.modal-header	Defines the style for the header of the modal
.modal-body	Defines the style for the body of the modal
.modal-footer	Defines the style for the footer in the modal. <b>Note:</b> This area is right-aligned by default. To change this, overwrite CSS with text-align:left center
.modal-sm	Specifies a small modal
.modal-lg	Specifies a large modal
.fade	Adds an animation/transition effect which fades the modal in and out

## Trigger the Modal Via data-\* Attributes

- Add data-toggle="modal" and data-target="#modalID" to any element.

**Note:** For <a> elements, omit data-target, and use href="#modalID" instead:



```
<!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="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Basic Modal Example</h2>
  <!-- Trigger the modal with a button -->
  <button type="button" class="btn btn-info btn-lg" data-toggle="modal" data-target="#myModal">Open
    Modal</button>

  <!-- Modal -->
  <div class="modal fade" id="myModal" role="dialog">
    <div class="modal-dialog">

      <!-- Modal content -->
      <div class="modal-content">
        <div class="modal-header">
          <button type="button" class="close" data-dismiss="modal">&times;</button>
          <h4 class="modal-title">Modal Header</h4>
        </div>
        <div class="modal-body">
          <p>Some text in the modal.</p>
        </div>
        <div class="modal-footer">
          <button type="button" class="btn btn-default" data-dismiss="modal">Close</button>
        </div>
      </div>
    </div>
  </div>

</div>

</body>
</html>
```

```
<!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="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>
```

```
<div class="container">
  <h2>Activate Modal with JavaScript</h2>
  <!-- Trigger the modal with a button -->
  <button type="button" class="btn btn-info btn-lg" id="myBtn">Open
    Modal</button>

  <!-- Modal -->
  <div class="modal fade" id="myModal" role="dialog">
    <div class="modal-dialog">

      <!-- Modal content-->
      <div class="modal-content">
        <div class="modal-header">
          <button type="button" class="close" data-dismiss="modal">&times;</button>
          <h4 class="modal-title">Modal Header</h4>
        </div>
        <div class="modal-body">
          <p>Some text in the modal.</p>
        </div>
        <div class="modal-footer">
          <button type="button" class="btn btn-default" data-dismiss="modal">Close</button>
        </div>
      </div>
    </div>
  </div>
```

```
<script>
$(document).ready(function(){
  $("#myBtn").click(function(){
    $("#myModal").modal();
  });
});
</script>

</body>
</html>
```

## Modal Options

- Options can be passed via data attributes or JavaScript.
- For data attributes, append the option name to data-, as in data-backdrop="".

Name	Type	Default	Description
backdrop	boolean or the string "static"	true	<ul style="list-style-type: none"><li>•Specifies whether the modal should have a dark overlay:</li></ul> <p>true - dark overlay</p> <ul style="list-style-type: none"><li>•false - no overlay (transparent)</li></ul> <p>If you specify the value "static", it is not possible to close the modal when clicking outside of it</p>
keyboard	boolean	true	<ul style="list-style-type: none"><li>•Specifies whether the modal can be closed with the escape key (Esc):</li></ul> <p>true - the modal can be closed with Esc</p> <ul style="list-style-type: none"><li>•false - the modal cannot be closed with Esc</li></ul>
show	boolean	true	Specifies whether to show the modal when initialized

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
    href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Modal Options</h2>
  <p>The data-keyboard attribute specifies whether the modal can be closed with the escape key.</p>
  <p><strong>Note:</strong> Press the Tab key on your keyboard to enter the modal window and then
    press the Esc key.</p>
  <!-- Trigger the modal with a button -->
  <button type="button" class="btn btn-success btn-md"
    id="myBtn" data-toggle="modal" data-target="#myModal"
    data-keyboard="true">Modal (data-
    keyboard="true")</button>
  <button type="button" class="btn btn-danger btn-md"
    id="myBtn2" data-toggle="modal" data-target="#myModal2"
    data-keyboard="false">Modal (data-
    keyboard="false")</button>
```

```
<!-- Modal -->
<div class="modal fade" id="myModal2" role="dialog">
  <div class="modal-dialog">

    <!-- Modal content-->
    <div class="modal-content">
      <div class="modal-header">
        <button type="button" class="close" data-dismiss="modal">x</button>
        <h4 class="modal-title">Modal Options</h4>
      </div>
      <div class="modal-body">
        <p>This modal cannot be closed with the escape key on your keyboard.</p>
      </div>
      <div class="modal-footer">
        <button type="button" class="btn btn-default" data-dismiss="modal">Close</button>
      </div>
    </div>

  </div>
</div>

</body>
</html>
```

# Model Methods

Method	Description
<code>.modal(<i>options</i>)</code>	Activates the content as a modal. See options above for valid values
<code>.modal("toggle")</code>	Toggles the modal
<code>.modal("show")</code>	Opens the modal
<code>.modal("hide")</code>	Hides the modal

# Modal Events

Event	Description
show.bs.modal	Occurs when the modal is about to be shown
shown.bs.modal	Occurs when the modal is fully shown (after CSS transitions have completed)
hide.bs.modal	Occurs when the modal is about to be hidden
hidden.bs.modal	Occurs when the modal is fully hidden (after CSS transitions have completed)



# The Carousel Plugin

- The Carousel plugin is a component for cycling through elements, like a carousel (slideshow).
- Plugins can be included individually (using Bootstrap's individual "carousel.js" file), or all at once (using "bootstrap.js" or "bootstrap.min.js")

- **The outermost <div>:**
- Carousels require the use of an id (in this case id="myCarousel") for carousel controls to function properly.
- The class="carousel" specifies that this <div> 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.
- **The "Indicators" part:**
- The indicators are the little dots at the bottom of each slide (which indicates how many slides there is in the carousel, and which slide the user are currently viewing).
- The indicators are specified in an ordered list with class .carousel-indicators.
- The data-target attribute points to the id of the carousel.
- The data-slide-to attribute specifies which slide to go to, when clicking on the specific dot.
- **The "Wrapper for slides" part:**
- The slides are specified in a <div> with class .carousel-inner.
- The content of each slide is defined in a <div> with class .item. This can be text or images.
- The .active class needs to be added to one of the slides. Otherwise, the carousel will not be visible.
- **The "Left and right controls" part:**
- This code adds "left" and "right" buttons that allows the user to go back and forth between the slides manually.
- The data-slide attribute accepts the keywords "prev" or "next", which alters the slide position relative to its current position.

```

<!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="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstra
    trap.min.css">
  <script
    src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.mi
    n.js"></script>
  <script
    src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstra
    p.min.js"></script>
  <style>
    .carousel-inner > .item > img,
    .carousel-inner > .item > a > img {
      width: 70%;
      margin: auto;
    }
  </style>
</head>
<body>

<div class="container">
  <br>
  <div id="myCarousel" class="carousel slide" data-ride="carousel">
    <!-- Indicators -->
    <ol class="carousel-indicators">
      <li data-target="#myCarousel" data-slide-to="0" class="active"></li>
      <li data-target="#myCarousel" data-slide-to="1"></li>
      <li data-target="#myCarousel" data-slide-to="2"></li>
      <li data-target="#myCarousel" data-slide-to="3"></li>
    </ol>

```

```

    <!-- Wrapper for slides -->
    <div class="carousel-inner" role="listbox">
      <div class="item active">
        
      </div>

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

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

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

    <!-- Left and right controls -->
    <a class="left carousel-control" href="#myCarousel" role="button" data-
    slide="prev">
      <span class="glyphicon glyphicon-chevron-left" aria-
      hidden="true"></span>
      <span class="sr-only">Previous</span>
    </a>
    <a class="right carousel-control" href="#myCarousel" role="button" data-
    slide="next">
      <span class="glyphicon glyphicon-chevron-right" aria-
      hidden="true"></span>
      <span class="sr-only">Next</span>
    </a>
  </div>
</div>

</body>
</html>

```

# The Carousel Plugin Classes

Class	Description
.carousel	Creates a carousel
.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
.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
.item	Specifies the content of each slide
.left carousel-control	Adds a left button to the carousel, which allows the user to go back between the slides
.right carousel-control	Adds a right button to the carousel, which allows the user to go forward between the slides
.carousel-caption	Specifies a caption for the carousel

## Via data-\* Attributes

- The data-ride="carousel" attribute activates the carousel.
- The data-slide and data-slide-to attributes specifies which slide to go to.
- The data-slide attribute accepts two values: **prev** or **next**, while data-slide-to accept numbers.

```
<!-- Carousel -->
```

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

```
<!-- Carousel Indicators -->
```

```
<li data-target="#myCarousel" data-slide-to="1"></li>
```

```
<!-- Carousel Controls -->
```

```
<a class="left carousel-control" href="#myCarousel" data-slide="prev">
```

# Carousel Options

- Options can be passed via data attributes or JavaScript. For data attributes, append the option name to data-, as in data-interval="".

Name	Type	Default	Description
interval	number, or the boolean false	5000	<p>Specifies the delay (in milliseconds) between each slide.</p> <p><b>Note:</b> Set interval to <b>false</b> to stop the items from automatically sliding</p>
pause	string, or the boolean false	"hover"	<p>Pauses the carousel from going through the next slide when the mouse pointer enters the carousel, and resumes the sliding when the mouse pointer leaves the carousel</p> <p><b>Note:</b> Set pause to <b>false</b> to stop the ability to pause on hover</p>
wrap	boolean	true	<p>•Specifies whether the carousel should go through all slides continuously, or stop at the last slide</p> <p>true - cycle continuously •false - stop at the last item</p>

# Carousel Methods

Method	Description
<code>.carousel(<i>options</i>)</code>	Activates the carousel with an option. See options above for valid values
<code>.carousel("cycle")</code>	Goes through the carousel items from left to right
<code>.carousel("pause")</code>	Stops the carousel from going through items
<code>.carousel(number)</code>	Goes to a specified item (zero-based: first item is 0, second item is 1, etc..)
<code>.carousel("prev")</code>	Goes to the previous item
<code>.carousel("next")</code>	Goes to the next item

# Carousel Events

Event	Description
slide.bs.carousel	Occurs when the carousel is about to slide from one item to another
slid.bs.carousel	Occurs when the carousel has finished sliding from one item to another