**bootstrap Introduction** (Source:w3schools.com)

**Internet Programming Week (6-Lec1)**

**Edited By: Albanna & Mohammed Nazmi**

## What is Bootstrap?

* Bootstrap is a free front-end framework for faster and easier web development
* Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins
* Bootstrap also gives you the ability to easily create responsive designs

|  |  |
| --- | --- |
| **Note** | **What is Responsive Web Design?**  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 History

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

**In June 2014 Bootstrap was the No.1 project on GitHub!**

## Why Use Bootstrap?

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)

## Where to Get Bootstrap?

There are two ways to start using Bootstrap on your own web site.

You can:

* Download Bootstrap from getbootstrap.com
* Include Bootstrap from a CDN

## Downloading Bootstrap

If you want to download and host Bootstrap yourself, go to [getbootstrap.com](http://getbootstrap.com/getting-started/), and follow the instructions there.

## Bootstrap CDN

If you don't want to download and host Bootstrap yourself, you can include it from a CDN (Content Delivery Network).

MaxCDN provide CDN support for Bootstrap's CSS and JavaScript. Also include jQuery:

## MaxCDN:

<!-- Latest compiled and minified CSS -->  
<link rel="stylesheet" href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.4/css/bootstrap.min.css">  
  
<!-- jQuery library -->  
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.1/jquery.min.js"></script>  
  
<!-- Latest compiled JavaScript -->  
<script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.4/js/bootstrap.min.js"></script>

|  |  |
| --- | --- |
| **Note** | **One advantage of using the Bootstrap CDN:** Many users already have downloaded Bootstrap from MaxCDN when visiting another site. As a result, it will be loaded from cache when they visit your site, which leads to faster loading time. Also, most CDN's will make sure that once a user requests a file from it, it will be served from the server closest to them, which also leads to faster loading time. |

## Create First Web Page With Bootstrap

**1. Add the HTML5 doctype**

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

Always include the HTML5 doctype at the beginning of the page, along with the lang attribute and the correct character set:

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

**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.

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 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:

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

**Note:** Containers are not nestable (you cannot put a container inside another container).

## Bootstrap 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:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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.

## Basic Structure of a Bootstrap Grid

The following is a basic structure of a Bootstrap grid:

<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>

First; create a row (<div class="row">). Then, add the desired number of columns (tags with appropriate .col-\*-\*classes). Note that numbers in .col-\*-\* should always add up to 12 for each row.

Below we have collected some examples of basic Bootstrap grid layouts.

## Bootstrap Text/Typography

Bootstrap's global default font-size is 14px, with a line-height of 1.428.

This is applied to the <body> and all paragraphs.

In addition, all <p> elements have a bottom margin that equals half their computed line-height (10px by default).

## Bootstrap vs. Browser Defaults

In this chapter, we will look at some HTML elements that will be styled a little bit different by Bootstrap than browser defaults.

## <h1> - <h6>

By default, Bootstrap will style the HTML headings (<h1> to <h6>) in the following way:

## Example

# h1 Bootstrap heading (36px)

## h2 Bootstrap heading (30px)

### **h3 Bootstrap heading (24px)**

#### **h4 Bootstrap heading (18px)**

##### **h5 Bootstrap heading (14px)**

###### **h6 Bootstrap heading (12px)**

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_txt_hn&stacked=h)

## <small>

In Bootstrap the HTML <small> element is used to create a lighter, secondary text in any heading:

## Example

# h1 heading secondary text

## h2 heading secondary text

### **h3 heading secondary text**

#### **h4 heading secondary text**

##### **h5 heading secondary text**

###### **h6 heading secondary text**

## <mark>

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

## Example

Use the mark element to highlight text.

## <abbr>

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

## Example

The WHO was founded in 1948.

## <blockquote>

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

## Example

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

To show the quote on the right, use the .blockquote-reverse class:

## Example

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

## <dl>

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

## Example

**Coffee**

- black hot drink

**Milk**

- white cold drink

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_txt_dl&stacked=h)

## <code>

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

## Example

The following HTML elements: span, section, and div defines a section in a document.

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_txt_code&stacked=h)

## <kbd>

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

## Example

Use ctrl + p to open the Print dialog box.

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_txt_kbd&stacked=h)

## <pre>

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

## Example

Text in a pre element

is displayed in a fixed-width

font, and it preserves

both spaces and

line breaks.

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_txt_pre&stacked=h)

## Contextual Colors and Backgrounds

Bootstrap also has some contextual classes that can be used to provide "meaning through colors".

The classes for text colors are:.text-muted, .text-primary, .text-success, .text-info, .text-warning, and .text-danger:

## Example

This text is muted.

This text is important.

This text indicates success.

This text represents some information.

This text represents a warning.

This text represents danger.

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_txt_colors&stacked=h)

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

## Example

This text is important.

This text indicates success.

This text represents some information.

This text represents a warning.

This text represents danger.

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_txt_bgcolors&stacked=h)

|  |  |  |
| --- | --- | --- |
| **Class** | **Description** | **Example** |
| .lead | Makes a paragraph stand out | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_txt_lead&stacked=h) |
| .small | Indicates smaller text (set to 85% of the size of the parent) | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_txt_small&stacked=h) |
| .text-left | Indicates left-aligned text | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_text-left&stacked=h) |
| .text-center | Indicates center-aligned text | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_text-left&stacked=h) |
| .text-right | Indicates right-aligned text | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_text-left&stacked=h) |
| .text-justify | Indicates justified text | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_text-left&stacked=h) |
| .text-nowrap | Indicates no wrap text | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_text-left&stacked=h) |
| .text-lowercase | Indicates lowercased text | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_text-lowercase&stacked=h) |
| .text-uppercase | Indicates uppercased text | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_text-lowercase&stacked=h) |
| .text-capitalize | Indicates capitalized text | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_text-lowercase&stacked=h) |
| .initialism | Displays the text inside an <abbr> element in a slightly smaller font size | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_txt_abbr2&stacked=h) |
| .list-unstyled | Removes the default list-style and left margin on list items (works on both<ul> and <ol>). This class only applies to immediate children list items (to remove the default list-style from any nested lists, apply this class to any nested lists as well) | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_txt_list-unstyled&stacked=h) |
| .list-inline | Places all list items on a single line | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_txt_list-inline&stacked=h) |
| .dl-horizontal | Lines up the terms (<dt>) and descriptions (<dd>) in <dl> elements side-by-side. Starts off like default <dl>s, but when the browser window expands, it will line up side-by-side | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_txt_dl-horizontal&stacked=h) |
| .pre-scrollable | Makes a <pre> element scrollable | [**Try it**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_ref_txt_pre&stacked=h) |

## More Typography Classes

The Bootstrap classes below can be added to style HTML elements further:

## Bootstrap Basic Table

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

The .table class adds basic styling to a table:

## Example

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

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_table_basic&stacked=h)

## Striped Rows

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

## Example

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

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_table_striped&stacked=h)

## Bordered Table

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

## Example

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

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_table_bordered&stacked=h)

## Hover Rows

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

## Example

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

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_table_hover&stacked=h)

## Condensed Table

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

## Example

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

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_table_condensed&stacked=h)

## Contextual Classes

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

## Example

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

[**Try it Yourself »**](http://www.w3schools.com/bootstrap/tryit.asp?filename=trybs_table_contextual&stacked=h)

The contextual classes that can be used are:

| **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 |