

# Bootstrap 4.1

Web Design Just Got Easier!

A toolkit for building responsive, **mobile-first** projects on the web



# 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.



# Mobile-first approach

- Mobile-first approach: In Bootstrap 4, mobile-first styles are part of the core framework Bootstrap 4 is mobile-first – Bootstrap 4 is designed to be responsive to mobile devices.
- Mobile-first styles are part of the core framework.
- The mobile first approach allows you to focus on the critical information users are looking for on your site.



# Why Use Bootstrap?

- It's easy to use:

Anybody with just basic knowledge of HTML and CSS can start using Bootstrap 4

- Responsive features:

Bootstrap's responsive CSS adjusts to phones, tablets, and desktops

- Browser compatibility: Bootstrap 4 is compatible with all modern browsers (Chrome, Firefox, Internet Explorer 10+, Safari, and Opera)



# WHERE TO GET BOOTSTRAP 4?

There are two ways to start using Bootstrap 4 on your own web site.

You can

**Include Bootstrap 4 from a CDN (Content Delivery Network)**

OR

**Download Bootstrap 4 from**

# CREATE FIRST WEB PAGE WITH BOOTSTRAP 4

## 1. Add the HTML5 doctype

Bootstrap 4 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 is mobile-first

Bootstrap 4 is designed to be responsive to mobile devices.

Mobile-first styles are part of the core framework.

**The mobile first approach allows you to focus on the critical information users are looking for on your site.**

- 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.



## BOOTSTRAP 4 BOILERPLATE TEMPLATE

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<meta http-equiv="X-UA-Compatible" content="ie=edge">
<!-- Latest compiled and minified CSS -->
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">
<title>Document</title>
</head>
<body>
<h1>Lorem ipsum dolor sit amet, consectetur adipisicing elit.</h1>
<!-- jQuery library -->
<script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.3.1/jquery.slim.js"></script>
<!-- Popper JS -->
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"></script>
<!-- Latest compiled JavaScript -->
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>
</body>
</html>
```



# TEXT TAGS

## H Tags

`<h1><h2><h3>`

## Displaytags(1,2,3,4...)

`<h1 class="display-4">Lorem ipsum dolor sit amet, consectetur adipisicing elit.</h1>`

## MarkTag

`<mark>`

## List Items

`<ul class="list-inline">` and `<li class="list-inline-item">`

## Lead Paragraph

`<p class="lead">Lorem ipsum dolor sit amet. </p>`

# HANDLING IMAGES

## Adding an image.

```

```

## Adding an image with a class assignment.

```

```

```

```

```

```

## Positioning class

```

```

## Positioning WHEN treating the image as a block element

```

```

```
<div class="text-center">
```

```
 </div>
```



**CONTAINER AND FLUID CONTAINER** requires a containing element to wrap the site's content

There are two container classes to choose from:

The **.container class** provides a responsive fixed width container

```
<div class="container">CONTENT GOES HERE </div>
```

A diagram illustrating the .container class. It consists of a large outer rectangle with a thin black border. Inside this rectangle is a smaller, centered gray rectangle. The text ".container" is written in black font in the center of the gray rectangle. A yellow arrow points from the code snippet to this diagram.

.container

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

```
<div class="container-fluid">CONTENT GOES HERE </div>
```

A diagram illustrating the .container-fluid class. It consists of a large outer rectangle with a thin black border. Inside this rectangle is a horizontal gray bar that spans the full width of the container. The text ".container-fluid" is written in black font in the center of the gray bar. A yellow arrow points from the code snippet to this diagram.

.container-fluid

# BOOTSTRAP GRIDS

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

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

Make sure that the sum adds up to 12 or fewer (it is not required that you use all 12 available 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 4 GRIDS

## The Bootstrap 4 grid system has five classes:

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

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



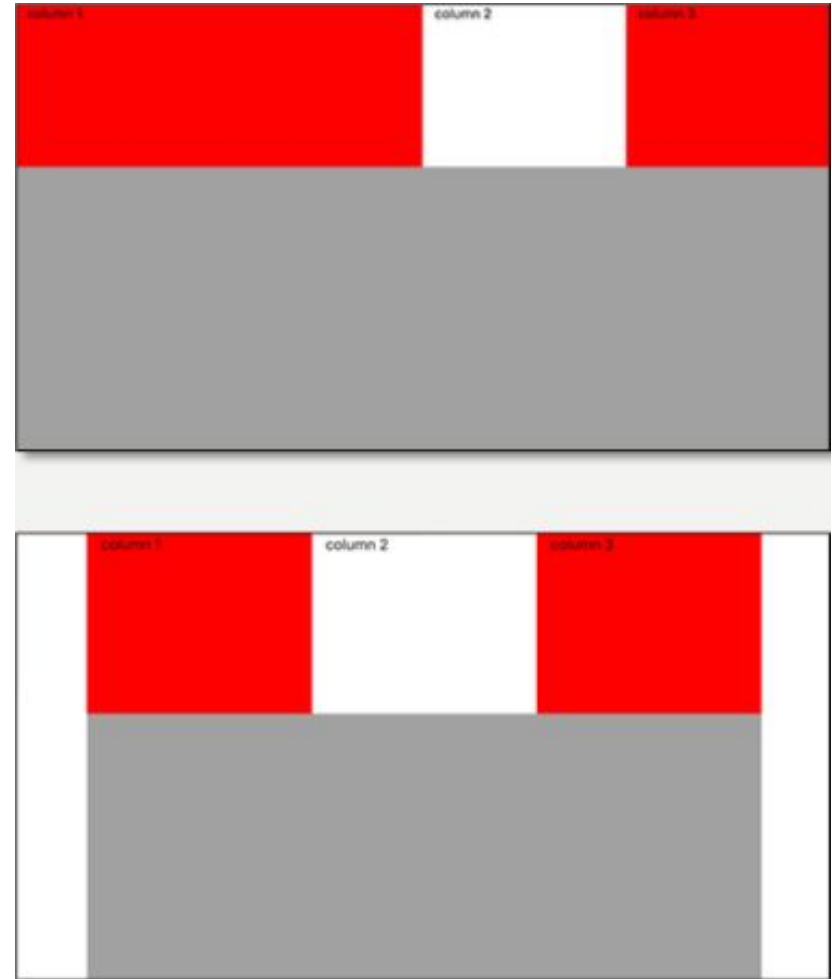
# CHANGING LAYOUTS ON DIFFERENT SCREENS



## WHAT IF YOU WANT A SPECIFIC GRID LAYOUT FOR ONE SCREEN SIZE, AND DIFFERENT GRID LAYOUT FOR A DIFFERENT SCREEN SIZE?

```
<div class="row">  
  <div class="col-lg-6 col-sm-4 red">column 1</div>  
  <div class="col-lg-6 col-sm-4 white">column 2</div>  
  <div class="col-lg-6 col-sm-4 yellow">column 3</div>  
</div>
```

- Define each column via media breaking point classes
- Apply more than one for varied layouts



# MEDIA BREAKPOINTS

**We use media query to add a breakpoint**

What are media queries?

Media queries are a CSS rule that only takes place when certain conditions are met

When writing a media query in CSS it is like writing an IF statement meaning:

If this happens, then do this.

It is best practice to set your media queries for larger versions of your website



```
.bgcolor {  
background-color: green; height:  
100vh;
```

```
}
```

```
/*sm*/
```

```
@media (min-width: 576px) and  
(max-width: 767px){
```

```
. bgcolor{ background-color: blue;  
height: 100vh;
```

```
}}
```



# BUTTONS

Buttons use the class btn followed by an additional class for coloring or outline or both



```
<button type="button" class="btn btn-primary">Primary</button>
<button type="button" class="btn btn-secondary">Secondary</button>
<button type="button" class="btn btn-success">Success</button>
<button type="button" class="btn btn-danger">Danger</button>
<button type="button" class="btn btn-warning">Warning</button>
<button type="button" class="btn btn-info">Info</button>
<button type="button" class="btn btn-light">Light</button>
<button type="button" class="btn btn-dark">Dark</button>

<button type="button" class="btn btn-link">Link</button>
```

# BUTTONS

Make buttons different sizes by applying these rules:



The classes that define the different sizes are:

- `.btn-lg`
- `.btn-md`
- `.btn-sm`
- `.btn-xs`

```
<button type="button" class="btn btn-primary btn-lg">Large</button>  
<button type="button" class="btn btn-primary btn-md">Medium</button>  
<button type="button" class="btn btn-primary btn-sm">Small</button>  
<button type="button" class="btn btn-primary btn-xs">XSmall</button>
```

# HREF BUTTON

You may apply the previously mentioned classes to your href links



BUY NOW

```
<div class="container"><a href="#" class="btn btn-danger">BUY NOW</a></div>
```

# JUMBOTRON

What is Jumbotron?

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

A jumbotron is displayed as a grey box with rounded corners. It also enlarges the font sizes of the text inside it.

## HERE IS AN EXAMPLE OF HOW THE JUMBOTRON IS WRITTEN AND DISPLAYED

```
<div class="container-fluid con">  
  <div class="jumbotron">  
    <h1 class="display-3">Lorem ipsum dolor sit mollit.</h1>  
    <p class="lead">Lorem ipsum dolor sit amet. </p>  
    <p>Lorem ipsum dolor sit amet.</p>  
  </div>  
</div>
```



# OVERWRITE JUMBOTRON BOOTSTRAP CSS

You can overwrite bootstrap in the css

- In this case, we can overwrite the gray background associated with the jumbotron.

Apply the *class* to your external stylesheet

```
.jumbotron { background-color: #ff519a;  
}
```

BEFORE

Lorem ipsum dolor sit mollit anim id  
est laborum.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.

AFTER

Lorem ipsum dolor sit mollit anim id  
est laborum.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.  
Lorem ipsum dolor sit amet, consectetur adipiscing elit.



# NAVBAR AND CUSTOMIZATION

Navbar Home Link Dropdown ▾ Disabled

Visit: <https://getbootstrap.com/docs/4.0/components/navbar/>

*Copy the code located under:*

*“Here’s an example of all the sub-components included in a responsive light-themed navbar that automatically collapses at the lg (large) breakpoint.”*

Paste into your page.

*Now modify the following to customize it further.*

~Change the background color of the bar by modifying the first line to read:

```
<nav class="navbar navbar-expand-lg navbar-light" style="background-color: #fff">
```

~ Change the button to black by modifying the button class for the search to read:

```
<button class="btn btn-dark my-2 my-sm-0" type="submit">Search</button>
```

~Add custom Company Name to

```
<a class="navbar-brand" href="#">Custom Company Name</a>
```



# ADDITIONAL RESOURCES

- ALL THINGS BOOTSTRAP

<https://getbootstrap.com/>

- W3SCHOOLS

<https://www.w3schools.com/bootstrap4/default.asp>

- Build 3 Projects in Bootstrap 4!

<https://www.udemy.com/bootstrap-4-tutorials/>

