

BootStrap



Media Queries

CSS syntax to set styles based on conditions such as browser width

Most useful: max-width, min-width

```
15  @media (max-width: 700px) {  
16      /* this CSS only runs  
17      if the screen size is  
18      under 700px*/  
19      h1{  
20          font-size: 20pt;  
21      }  
22  
23      img{  
24          display: none;  
25      }  
26  }
```

Using media queries, you can adjust the page based on the screen size

After learning about bootstrap, we will see how we can use this



Large Devices



Medium Devices



Small Devices



Extra Small Devices



Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web.

Bootstrap Library

- A large set of CSS classes with default behavior.
 - Basically a large pre-written CSS file
- Why use it?
 - Modern styling
 - Mobile optimization

See the non-compressed css file here: <http://maxcdn.bootstrapcdn.com/bootstrap/3.3.6/css/bootstrap.css>

```
/*!
 * Bootstrap v3.3.6 (http://getbootstrap.com)
 * Copyright 2011-2015 Twitter, Inc.
 * Licensed under MIT
 (https://github.com/twbs/bootstrap/blob/master/LICENSE)
 **/
/*! normalize.css v3.0.3 | MIT License |
github.com/necolas/normalize.css */
html{font-family:sans-serif;-webkit-text-size-adjust:100%;-ms-text-size-adjust:100%}body{margin:0}article,aside,details,figcaption,figure,footer,header,hgroup,main,menu,nav,section,summary{display:block}audio,canvas,progress,video{display:inline-block;vertical-align:baseline}audio:not([controls]){display:none;height:0}[hidden],template{display:none}a{background-color:transparent}a:active,a:hover{outline:0}abbr[title]{border-bottom:1px dotted}b,strong{font-weight:700}dfn{font-style:italic}h1{margin:.67em 0;font-size:2em}mark{color:#000;background:#ff0}small{font-size:80%;position:relative;font-size:75%;line-height:0;vertical-align:baseline}sup{top:-.5em}sub{bottom:-.25em}img{border:0}svg:not(:root){overflow:hidden}figure{margin:1em 40px}hr{height:0;-webkit-box-sizing:content-box;-moz-box-sizing:content-box;box-sizing:content-box}pre{overflow:auto}code,kbd,pre,samp{font-family:monospace,monospace;font-size:1em}button,input,optgroup,select,textarea{margin:0;font:inherit;color:inherit}button{overflow:visible}button,select{text-transform:none}button,html input[type=button],input[type=reset],input[type=submit]{-webkit-appearance:button;cursor:pointer}button[disabled],html input[disabled]{cursor:default}button::-moz-focus-inner,input::-moz-focus-inner{padding:0;border:0}input{line-height:normal}input[type=checkbox],input[type=radio]{-webkit-box-sizing:border-box;-moz-box-sizing:border-box;box-sizing:border-box;padding:0}input[type=number]::-webkit-inner-spin-button,input[type=number]::-webkit-outer-spin-button{height:auto}input[type=search]{-webkit-box-sizing:content-box;-moz-box-sizing:content-box;box-sizing:content-box;-webkit-appearance:textfield}input[type=search]::-webkit-search-cancel-button,
input[type=search]::-webkit-search-decoration,
input[type=search]::-webkit-search-results-button,
input[type=search]::-webkit-search-results-decoration{display:none}}
```

Just adding the link to the bootstrap file will start improving the page

Page without bootstrap

Test

- Dog 1
- Dog 2
- Cat

submit

With the link to bootstrap added

Test

- Dog 1
- Dog 2
- Cat

submit

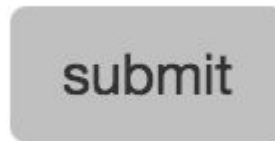
Using bootstrap classes

If the css file is linked, then you can apply any of the bootstrap classes

Button without any
classes



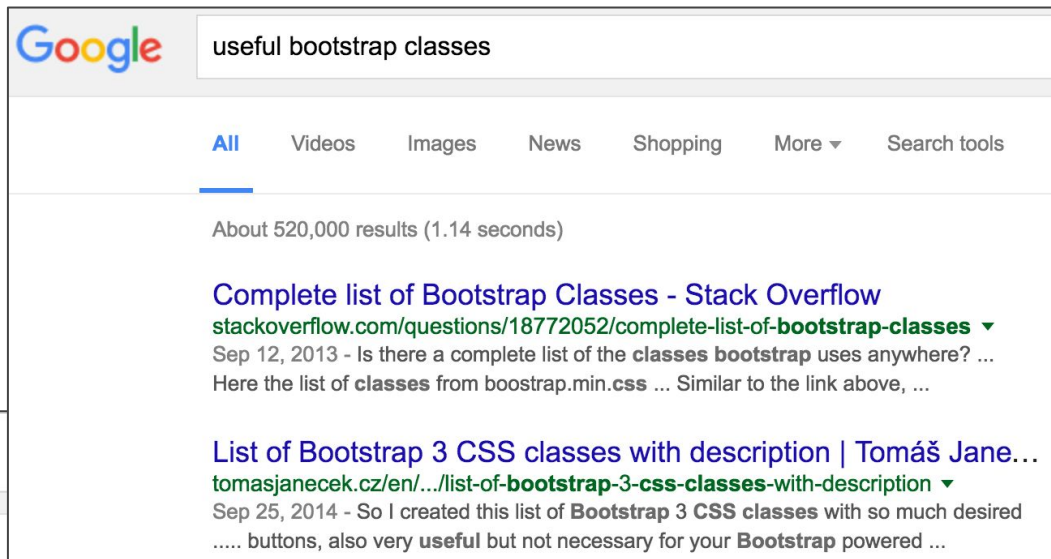
Button with the
bootstrap class "btn"
added



```
<button type="button" class="btn">submit</button>
```

Finding the classes

Bootstrap elements can be found easily from searching



Google

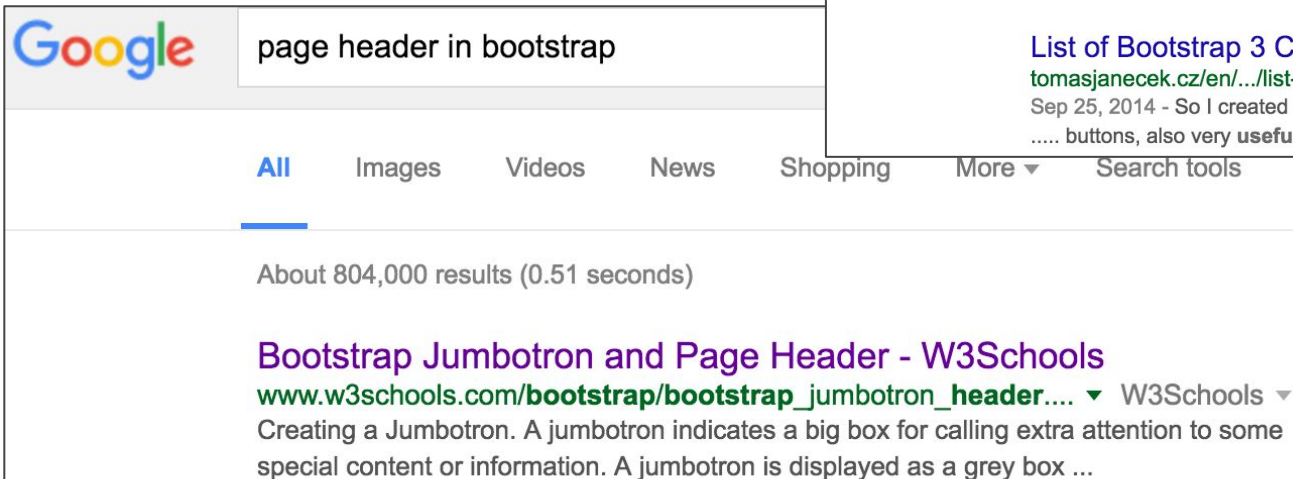
useful bootstrap classes

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About 520,000 results (1.14 seconds)

Complete list of Bootstrap Classes - Stack Overflow
stackoverflow.com/questions/18772052/complete-list-of-bootstrap-classes ▾
Sep 12, 2013 - Is there a complete list of the **classes** **bootstrap** uses anywhere? ...
Here the list of **classes** from bootstrap.min.css ... Similar to the link above, ...

List of Bootstrap 3 CSS classes with description | Tomáš Jane...
tomasjanecek.cz/en/.../list-of-bootstrap-3-css-classes-with-description ▾
Sep 25, 2014 - So I created this list of **Bootstrap 3 CSS classes** with so much desired
..... buttons, also very **useful** but not necessary for your **Bootstrap** powered ...



Google

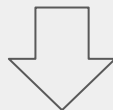
page header in bootstrap

All Images Videos News Shopping More ▾ Search tools

About 804,000 results (0.51 seconds)

Bootstrap Jumbotron and Page Header - W3Schools
www.w3schools.com/bootstrap/bootstrap_jumbotron_header.... ▾ W3Schools ▾
Creating a 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 ...

Create elements that automatically
change with screen size



Bootstrap



Use classes for complex
interactions like creating columns

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Heading

Donec sed odio dui. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Vestibulum id ligula porta felis euismod semper. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa.

[View details »](#)

Link to the Bootstrap library

Bootstrap online link



```
<link rel="stylesheet" href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.6/css/bootstrap.css">  
<link rel="stylesheet" type="text/css" href="main.css">
```



Put your own CSS link after, so
you can overwrite styles if
necessary

Creating a Header

Bootstrap offers classes for easily improving the styles of single items

“jumbotron” and “page-header” are two useful classes for headers

The Dawg Coffee



Bootstrap containers

```
<div class="container">  
  <h1 class="page-header">The Dawg Coffee</h1>  
</div>
```

Wrapping things in divs with the class "container" will give some nice default padding/margin to the element

Creating a NavBar

- Create a `<nav>` element
- Create a list of `<a>` tags to represent the buttons
- Apply classes like so:

```
<nav class="navbar navbar-default">  
  <ul class="nav navbar-nav">  
    <li class="nav-item"><a class="nav-link" href="#">Dog 1</a>  
    <li class="nav-item"><a class="nav-link" href="#">Dog 2</a>  
    <li class="nav-item"><a class="nav-link" href="#">Cat</a>  
  </ul>  
</nav>
```



Dog 1 Dog 2 Cat

- navbar-default: light background
- navbar-inverse: dark background

The Dawg Coffee

Bootstrap 12 Column System

- Bootstrap interprets the page as divided into 12 sections
- When creating a column, you need to know how many of the 12 sections you want it to take up

.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1
-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

.col-md-8	.col-md-4
-----------	-----------

.col-md-4	.col-md-4	.col-md-4
-----------	-----------	-----------

.col-md-6	.col-md-6
-----------	-----------

Bootstrap 12 Column System

- In order to divide the page into 3 columns, we need to make each div take up 4 of the 12 sections

4 columns

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

4 columns

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

4 columns

Heading

Donec sed odio dui. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Vestibulum id ligula porta felis euismod semper. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa.

[View details »](#)

The Column Class

col-xs-*

col-sm-*

col-md-*

col-lg-*

Put the number of columns you want it to take up

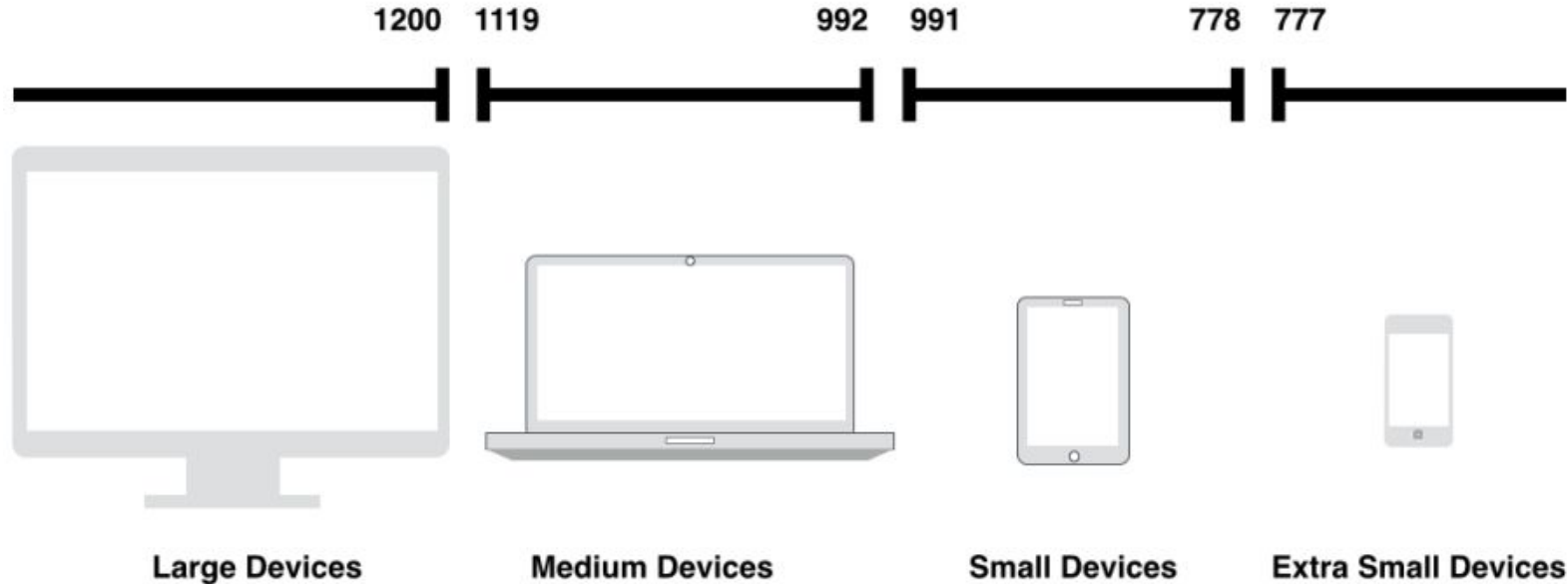
```
<div class="col-md-4">
```

This will happen on medium screens or larger. (992px or larger)

This column will take up 4 out of 12 sections of the page. (So $\frac{1}{3}$ of the page)

Bootstrap screen sizes: lg, md, sm, xs

(Sizes in px)



Responsive widths for different screen sizes

```
<div class="col-md-4 col-sm-6 col-xs-12">
```

This will take up the whole browser width on extra small devices, half the screen on small devices, and $\frac{1}{3}$ the screen on medium devices or larger

Why did we talk about media queries?

Since Bootstrap classes can change based on screen sizes, it is helpful to know how to write our own styles based on screen size.

```
15  @media (max-width: 992px) {  
16      /* this CSS only runs  
17      if the screen size is  
18      under 992px*/  
19      h1{  
20          font-size: 20pt;  
21      }  
22  }  
23  }
```