

Bootstrap

A Quick Introduction

R. Scott Granneman & Jans Carton

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Notes & URLs for this presentation can be found...

- » underneath the link to this slide show on granneman.com
- » at files.granneman.com/presentations/webdev/Bootstrap.txt

The Magic Tag

If you want to build a responsive website — whether you use Bootstrap or not — your webpage *must* have *the magic tag* in it

The magic tag makes all responsive design possible

Start with this basic HTML template, or modify [these examples](#). We hope you'll customize our templates and examples, adapting them to suit your needs.

Copy the HTML below to begin working with a minimal Bootstrap document.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Bootstrap 101 Template</title>

    <!-- Bootstrap -->
    <link href="css/bootstrap.min.css" rel="stylesheet">

    <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media queries -->
    <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
    <!--[if lt IE 9]>
      <script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
      <script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
    <![endif]-->
  </head>
  <body>
    <h1>Hello, world!</h1>

    <!-- jQuery (necessary for Bootstrap's JavaScript plugins) -->
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.0/jquery.min.js"></script>
    <!-- Include all compiled plugins (below), or include individual files as needed -->
    <script src="js/bootstrap.min.js"></script>
  </body>
</html>
```



[Download](#)

[What's included](#)

[Basic template](#)

[Examples](#)

[Community](#)

[Disabling responsiveness](#)

[Migrating from 2.x to 3.0](#)

[Browser and device support](#)

[Third party support](#)

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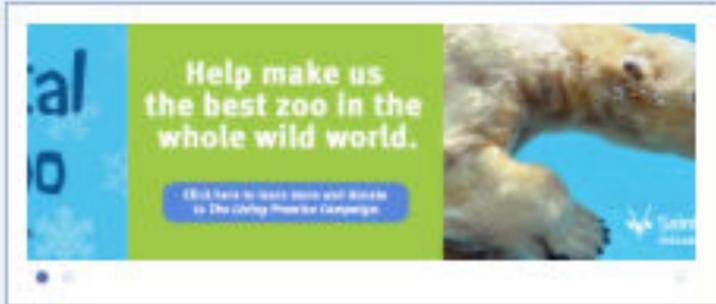
[Customizing Bootstrap](#)

[Translations](#)

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

By default, mobile browsers zoom websites so that they fill the device screen



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 - [Garden of Eatin'](#) [Savannah Day Dinner](#)
 - [Wild One's](#) [Wild One's](#) is closed. [Plan. 3.6](#) for spring cleaning!

FEATURES
Penguin & Puffin Coast is closed for construction of Polar Bear Point

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Scott Granneman is an [author](#), [educator](#), & partner in a Web development company in St. Louis, Missouri. Scott has written six books, contributed to two, and penned monthly columns for SecurityFocus and *Linux Magazine*. He is an Adjunct Professor at Washington University in St. Louis & Webster University, [teaching courses](#) on technology, security, web development, & the Internet. As a Principal of [WebSanity](#), he plans, develops, and hosts websites for clients in 12 states using an open source, UNIX-based [content management system](#). He has given [presentations](#) all over the United States, and loves speaking to people.

Key Site Links

Pages you're probably looking for:

- [Publications](#)
- [Summer Vacation 2007: The Plains](#)
- [Web Development Key Links](#)
- Wash U: [Website Design & Development Syllabus](#)
- Webster U: [Programming for Web Communications Syllabus](#)
- Webster U: [Intro to Web Programming Syllabus](#)
- Webster U: [Senior Overview Syllabus](#)

News & Updates

Note: The following news items are personal in nature & are automatically selected from [GranneBlog](#).

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- [RSS Reader](#)
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[Talk about Markdown to SLUUG this Wednesday](#)

November 7, 2011

I'll be giving a talk to the St. Louis UNIX Users Group next Wednesday night about Markdown, a tool I absolutely love. You're invited to come. Please do – I think you'll definitely learn a lot. Date: Wednesday, Nov. 9, 2011 Time: 6...

[Speaking at SLUUG: Amazing, Stupendous, Mind-Blowing Apps for iPad2](#)

June 5, 2011

Jans Carton & I are delivering a talk at the St. Louis UNIX Users Group at 6:30 pm this Wednesday, 8 June 2011, titled "Amazing, Stupendous, Mind-Blowing Apps for iPad2". We'll be demoing iPad apps live for everyone. If you want to f...

[A solution to two-way task list syncing on a Mac & iPhone](#)

December 11, 2009

I just published a page on my website about a solution I've found to an important issue: how to keep task lists on my Mac & my iPhone that are synced. I used to use The Hit List, but the developer's failure to come up with an iPhone soluti...

[Linux Phrasebook in Russian](#)

November 29, 2009

My book, Linux Phrasebook, which is still selling well & still just as useful today as when it came out in 2006 (& will be for another decade or two, given how consistent the Linux command line is), has been translated into Russian. You can find i...

[Outline for an Unpublished Linux Textbook](#)

June 18, 2009

However, when you responsively design a website, you do *not* want it to zoom—you want it to display responsively!

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

Essentially, putting this in your `<head>` tells the browser that it should *not* zoom, & that you will handle how it looks in the browser yourself (by using responsive design)

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

`width=device-width`

Tells browser that the website adapts to the browser's width, so the width of the viewport should be equal to the width of the device

`initial-scale=1`

Sets the initial zoom level: 1 CSS pixel is equal to 1 viewport pixel, ergo, do not zoom

Installation & Setup

3 methods to make Bootstrap available to use

1. *Manually download* Bootstrap & copy the files into your project
2. *Link via CDN* to Bootstrap's files online
3. Install via package manager like `npm`

Manually Download

Advantages of downloading

- » Available offline
- » Can open & read Bootstrap CSS & JS files
- » Can install using package manager (e.g., Bower or NPM)

Disadvantages

- » You have to manage Bootstrap files
- » You have to make sure your templates match your files & folders
- » I have to take extra time with students 🙄

Download & Install



Bootstrap

Build responsive, mobile-first projects on the web with the world's most popular front-end component library.

Bootstrap is an open source toolkit for developing with HTML, CSS, and JS. Quickly prototype your ideas or build your entire app with our Sass variables and mixins, responsive grid system, extensive prebuilt components, and powerful plugins built on jQuery.



[Get started](#)

[Download](#)

Currently v4.1.3



Getting started

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Layout

[Content](#)[Components](#)[Utilities](#)[Extend](#)[Migration](#)

Download

Download Bootstrap to get the compiled CSS and JavaScript, source code, or include it with your favorite package managers like npm, RubyGems, and more.

Compiled CSS and JS

Download ready-to-use compiled code for **Bootstrap v4.1.3** to easily drop into your project, which includes:

- Compiled and minified CSS bundles (see [CSS files comparison](#))
- Compiled and minified JavaScript plugins

This doesn't include documentation, source files, or any optional JavaScript dependencies (jQuery and Popper.js).

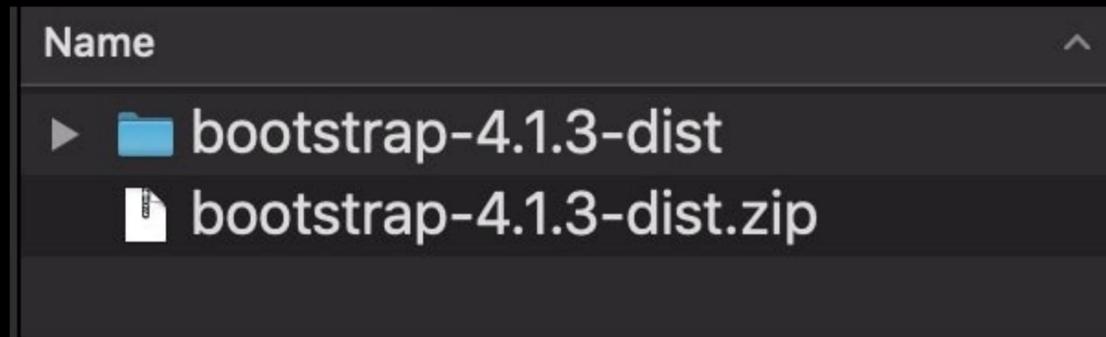
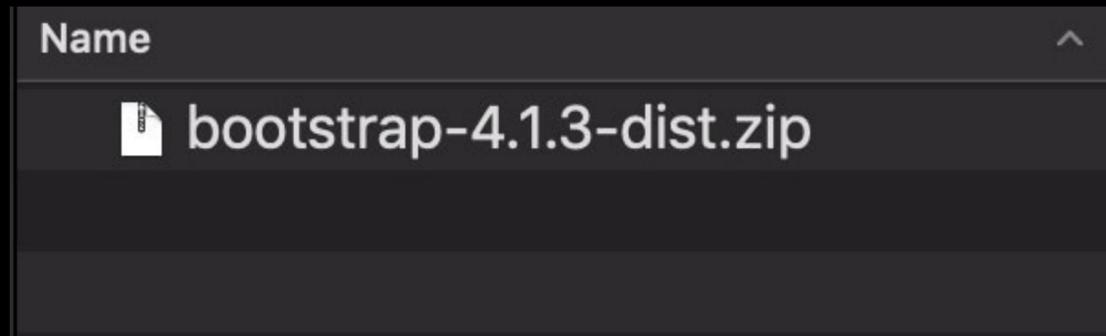
[Download](#)

Source files

[Compiled CSS and JS](#)[Source files](#)[BootstrapCDN](#)[Package managers](#)[npm](#)[RubyGems](#)[Composer](#)[NuGet](#)

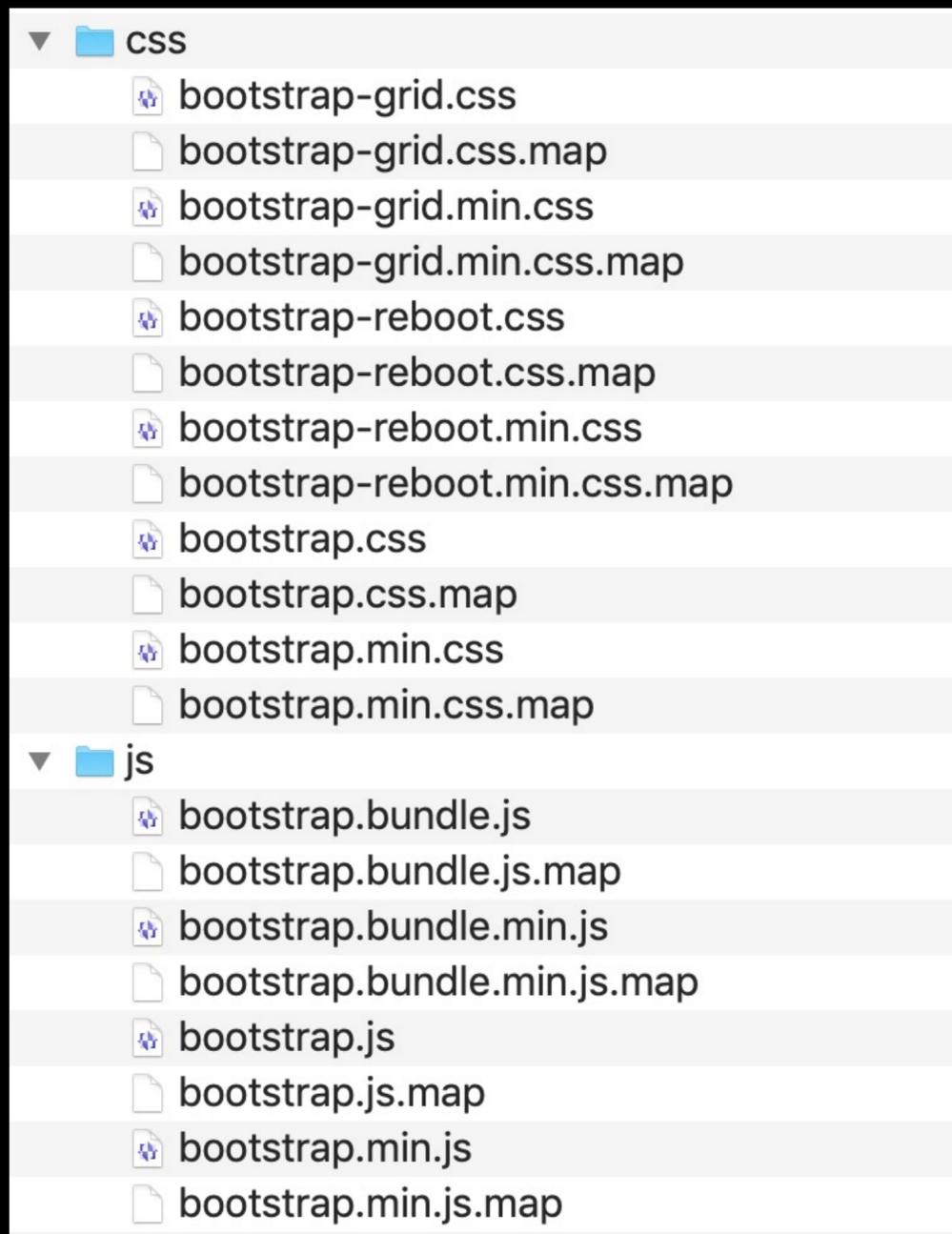
You will download a file named something like `bootstrap-4.1.3-dist.zip` into your Downloads folder

Unzip that file & extract the contents to its own folder



Mac users, just double-click on the zip file & you will have a folder named something like `bootstrap-4.1.3-dist`

Windows users, right-click on `bootstrap-4.1.3-dist.zip` & select Extract Here



Remove unnecessary files



SIDE NOTE

`bootstrap.min.css`

`bootstrap.min.js`

The `.min` stands for *minified*

What's minification?

Working Files



<> index.htm

bootstrap-3.3.6 ▾

▾ css

bootstrap.css

bootstrap.min.css

▸ fonts

<> index.htm

▸ js

```
1 ▾ /*!  
2   * Bootstrap v3.3.6 (http://getbootstrap.com)  
3   * Copyright 2011-2015 Twitter, Inc.  
4   * Licensed under MIT  
   (https://github.com/twbs/bootstrap/blob/master/LICEN  
   NSE)  
5   */  
6  /*! normalize.css v3.0.3 | MIT License |  
   github.com/necolas/normalize.css */  
7 ▾ html {  
8   font-family: sans-serif;  
9   -webkit-text-size-adjust: 100%;  
10  |    -ms-text-size-adjust: 100%;  
11  }  
12 ▾ body {  
13  margin: 0;  
14  }  
15  article,  
16  aside,  
17  details,  
18  figcaption
```

Working Files



<> index.htm

bootstrap-3.3.6 ▾

▾ css

bootstrap.css

bootstrap.min.css

▶ fonts

<> index.htm

▶ js

```
6742 ▾ @media print {
6743 ▾ |   .visible-print-inline {
6744 |     display: inline !important;
6745 |   }
6746 | }
6747 ▾ .visible-print-inline-block {
6748 |   display: none !important;
6749 | }
6750 ▾ @media print {
6751 ▾ |   .visible-print-inline-block {
6752 |     display: inline-block !important;
6753 |   }
6754 | }
6755 ▾ @media print {
6756 ▾ |   .hidden-print {
6757 |     display: none !important;
6758 |   }
6759 | }
6760 /*# sourceMappingURL=bootstrap.css.map */
6761
```

Working Files



<> index.htm

bootstrap-3.3.6 ▾

▾ css

bootstrap.css

bootstrap.min.css

▶ fonts

<> index.htm

▶ js

```
1 ▾ | /*!  
2   | * Bootstrap v3.3.6 (http://getbootstrap.com)  
3   | * Copyright 2011-2015 Twitter, Inc.  
4   | * Licensed under MIT  
   | (https://github.com/twbs/bootstrap/blob/master/LICEN  
   | NSE)  
5   | *//*! 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,fig  
   | caption,figure,footer,header,hgroup,main,menu,nav,s  
   | ection,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[t  
   | itle]{border-bottom:1px dotted}b,strong{font-  
   | weight:700}dfn{font-style:italic}h1{margin:.67em  
   | 0;font
```



Working Files



<> index.htm

bootstrap-3.3.6 ▾

▾ css

bootstrap.css

bootstrap.min.css

▶ fonts

<> index.htm

▶ js

```
and (max-width:1199px){.hidden-  
md{display:none!important}@media (min-  
width:1200px){.hidden-  
lg{display:none!important}.visible-  
print{display:none!important}@media print{.visible-  
print{display:block!important}table.visible-  
print{display:table!important}tr.visible-  
print{display:table-row!important}td.visible-  
print,th.visible-print{display:table-  
cell!important}.visible-print-  
block{display:none!important}@media print{.visible-  
print-block{display:block!important}.visible-  
print-inline{display:none!important}@media  
print{.visible-print-  
inline{display:inline!important}.visible-print-  
inline-block{display:none!important}@media  
print{.visible-print-inline-block{display:inline-  
block!important}@media print{.hidden-  
print{display:none!important}}
```

```
6 /*# sourceMappingURL=bootstrap.min.css.map */
```

6 lines
instead of
6760!



Rename the folder `bootstrap-4.1.3-dist` so that it's now `bootstrap-101`

Drag the `bootstrap-101` folder into your Web Dev Projects folder

Template

Your `<head>` should look like this...

```
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible"
content="IE=edge">
  <meta name="viewport" content="width=device-
width, initial-scale=1">
  <title>Untitled</title>

  <link rel="stylesheet" href="/css/
bootstrap.css">
  <link rel="stylesheet" href="/css/main.css">
</head>
```

And your `<body>` like this...

```
<body>
  <h1>Hello, world!</h1>

  <script src="https://ajax.googleapis.com/
ajax/libs/jquery/1.11.2/jquery.min.js"></
script>
  <script src="/js/bootstrap.js"></script>
</body>
```

You *must* keep the JavaScript, or things will break (e.g.,
dropdown menus)

Make sure jQuery comes *before* any other JavaScripts that depend on it (like `bootstrap.js`)

```
<script src="https://ajax.googleapis.com/ajax/
libs/jquery/1.11.2/jquery.min.js"></script>
<script src="js/bootstrap.js"></script>
```

Otherwise, leave the jQuery `<script>` alone



SIDE NOTE

What is jQuery?

Most popular (73% of top 10 million websites!)
JavaScript library, designed to simplify client-side scripting

Lots of other JavaScripts depend upon jQuery (like Bootstrap)

The dependency upon jQuery is removed in Bootstrap 5

Link via CDN



SIDE NOTE

What's a *CDN* anyway?

“A content delivery network is a highly-distributed platform of servers that responds directly to end user requests for web content. It acts as an intermediary between a content server, also known as the origin, and its end users or clients. ... Content Delivery Networks, also known as CDNs, carry nearly half of the world's Internet traffic.” —Akamai's CDN Learning Center



SIDE NOTE

Akamai is one of the largest CDNs in the world

Akamai serves 15–30% of all Web traffic

“The company operates a network of servers around the world and rents capacity on these servers to customers who want their websites to work faster by distributing content from locations close to the user. When a user navigates to the URL of an Akamai customer, their browser is redirected to one of Akamai’s copies of the website.” —Wikipedia



SIDE NOTE



Akamai's global reach

Advantages of linking

- » Create or use a template with the right links & you're finished 😎
- » Users already have it cached so it loads real quick like
- » You do not have to manage extra files
- » I do not have to take extra time with students

Disadvantages

- » No Internet, no files 🙄
- » Cannot easily open & read Bootstrap CSS & JS files

Using Brackets?

If you're using Brackets, install my HTML Templates extension

1. Open the Extension Manager in Brackets
2. Search for *HTML Templates, Updated* by Scott Granneman
3. Click Install
4. Click Close
5. Reload when asked

Now use my HTML Templates extension

1. Create a file named `index.html`
2. Edit > HTML Templates...
3. Click the Framework Templates pop-up menu & select Bootstrap 3

Using Visual Studio Code?

Go to the *Extensions View* & install File Templates
Manager by Ivan Zakharchanka



SIDE NOTE

FYI where templates are stored (in case you want to back them up)



```
~/Library/Application Support/Code/User/  
CodeTemplates/
```



```
%HOME%
```

```
\AppData\Roaming\Code\User\CodeTemplates\
```

Edit the current HTML template & copy over it with mine:

HTML5 template: <http://chnsa.ws/1b1>

Create 2 new templates & use the following:

Bootstrap 3 CDN template: <http://chnsa.ws/1b2>

Bootstrap 4 CDN template: <http://chnsa.ws/1b3>

If you're instead building a template or page by hand...

1. Use the standard template at <https://getbootstrap.com/docs/3.3/getting-started/#template>
2. Substitute the links to CSS & JS in the standard template with those found at <https://getbootstrap.com/docs/3.3/getting-started/#download-cdn> (ignore the second one, to the Optional Theme)

Manual installation; no CDN

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="utf-8">
5   <meta http-equiv="X-UA-Compatible"
6     content="IE=edge">
7   <meta name="viewport" content="width=device-width,
8     initial-scale=1">
9
10  <title>Bootstrap 101 Template</title>
11  <link href="css/bootstrap.min.css" rel="stylesheet">
12  <link rel="stylesheet" href="css/main.css">
13 </head>
14 <body>
15   <h1>Hello, world!</h1>
16
17   <script
18     src="https://ajax.googleapis.com/ajax/libs/jquery/1.
19     12.4/jquery.min.js"></script>
```

CDN always used
for jQuery

Manual installation; no CDN

```
3 </head>
4 <meta charset="utf-8">
5 <meta http-equiv="X-UA-Compatible"
  content="IE=edge">
6 <meta name="viewport" content="width=device-width,
  initial-scale=1">
7
8 <title>Bootstrap 101 Template</title>
9
10 <link href="css/bootstrap.min.css" rel="stylesheet">
11 <link rel="stylesheet" href="css/main.css">
12 </head>
13 <body>
14 <h1>Hello, world!</h1>
15
16 <script
  src="https://ajax.googleapis.com/ajax/libs/jquery/1.
  12.4/jquery.min.js"></script>
17 <script src="js/bootstrap.min.js"></script>
18 </body>
19 </html>
```

EXPLORER

OPEN EDITORS

✕ <> bootstrap-4.htm...

BOOTSTRAP-101

▸ .vscode

▸ css

▸ images

▸ news

▸ products

<> about.html

☰ Bootstrap examples...

<> bootstrap-4.html.html

<> contact.html

<> index-01.html

<> index-02-jumbotron...

<> index-03-breadcru...

<> index-04-nav.html

<> management.html

▸ OUTLINE

▸ MARK JUMP

▸ TEMPLATES

<> bootstrap-4.html.html

<> bootstrap-4.html.html ▸ ...

1 <!DOCTYPE html>

2 <html lang="en">

3

4 <head>

5 <meta charset="utf-8">

6 <meta name="viewport" content="width=device-width,
initial-scale=1, shrink-to-fit=no">

7

8 <title>Untitled</title>

9

10 <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.
1/css/bootstrap.min.css"
integrity="sha384-WskhaSGFgHYWDcbwN70/dfYBj47jz9qbsMI
d/iRN3ewGhX
QFZCSftd1LZCfmhktB" crossorigin="anonymous">

11 <link rel="stylesheet" href="/css/main.css">

12 </head>

13

14 <body>

15 <h1>Hello, world!</h1>

16



EXPLORER

OPEN EDITOR... 1 UNSAVED

bootstrap-4.html.html

BOOTSTRAP-101

.vscode

css

images

news

products

about.html

Bootstrap examples...

bootstrap-4.html.html

contact.html

index-01.html

index-02-jumbotron...

index-03-breadcru...

index-04-nav.html

management.html

OUTLINE

MARK JUMP

TEMPLATES

bootstrap-4.html.html

bootstrap-4.html.html

15

<n1>Hello, world!</n1>

16

17

18

19

```
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"
  integrity="sha384-q8i/X
+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
  crossorigin="anonymous"></script>
```

20

```
<script
  src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.
3/umd/popper.min.js" integrity="sha384-ZMP7rVo3mIykV+2
+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/l8WvCWPIpM49"
  crossorigin="anonymous"></script>
```

21

```
<script
  src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/js/boots
trap.min.js"
  integrity="sha384-smHYKdLADwkX0n1EmN1qk/HfnUcbVRZyYmZ4qpPea6sjB/
pTJ0euyQp0Mk8ck+5T" crossorigin="anonymous"></script>
```

22

</body>

23

24

</html>

```
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"
  integrity="sha384-q8i/X
+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
  crossorigin="anonymous"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.
3/umd/popper.min.js" integrity="sha384-ZMP7rVo3mIykV+2
+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/l8WvCWPIpM49"
  crossorigin="anonymous"></script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/js/boots
trap.min.js"
  integrity="sha384-smHYKdLADwkX0n1EmN1qk/HfnUcbVRZyYmZ4qpPea6sjB/
pTJ0euyQp0Mk8ck+5T" crossorigin="anonymous"></script>
```

Using Bootstrap

Bootstrap is really just a collection of pre-made CSS & JavaScript for you to use with your site

Link to the default CSS in your `<head>` & the JavaScript in `<body>`, & use the CSS classes that Bootstrap provides in your HTML

Want to change Bootstrap's default styles or scripting behaviors?

Do *not* edit the default CSS & JavaScript!

Next time you upgrade, all your changes go poof

Instead, create your own CSS & link to it *after* you link to `bootstrap.css`

```
<link rel="stylesheet" href="https://  
stackpath.bootstrapcdn.com/.../  
bootstrap.min.css" ...>
```

```
<link rel="stylesheet" href="/css/main.css">
```

Override Bootstrap's CSS as needed in your CSS

 PRO TIP

You would do the same thing with `bootstrap.js`

How do you know which Bootstrap classes to use, & which classes do what?

`bootstrap.css` is ~9000 lines—do not read it!

Read the documentation at getbootstrap.com



Bootstrap

Build responsive, mobile-first projects on the web with the world's most popular front-end component library.

Bootstrap is an open source toolkit for developing with HTML, CSS, and JS. Quickly prototype your ideas or build your entire app with our Sass variables and mixins, responsive grid system, extensive prebuilt components, and powerful plugins built on jQuery.

[Get started](#)

[Download](#)

Currently v4.1.3





Bootstrap

Build responsive, mobile-first projects on the web with the world's most popular front-end component library.

Bootstrap is an open source toolkit for developing with HTML, CSS, and JS. Quickly prototype your ideas or build your entire app with our Sass variables and mixins, responsive grid system, extensive prebuilt components, and powerful plugins built on jQuery.

[Get started](#)

[Download](#)

Currently v4.1.3

- ✓ Latest (4.1.x)
- v4.0.0
- v4 Alpha 6
- v3.3.7
- v2.3.2





Search...

Getting started

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Introduction

Get started with Bootstrap, the world's most popular framework for building responsive, mobile-first sites, with BootstrapCDN and a template starter page.

Quick start

Looking to quickly add Bootstrap to your project? Use BootstrapCDN, provided for free by the folks at StackPath. Using a package manager or need to download the source files? [Head to the downloads page.](#)

CSS

Copy-paste the stylesheet `<link>` into your `<head>` before all other stylesheets to load our CSS.

```
<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/cs
```

Copy

Quick start

CSS

JS

Starter template

Important globals

HTML5 doctype

Responsive meta tag

Box-sizing

Reboot

Community



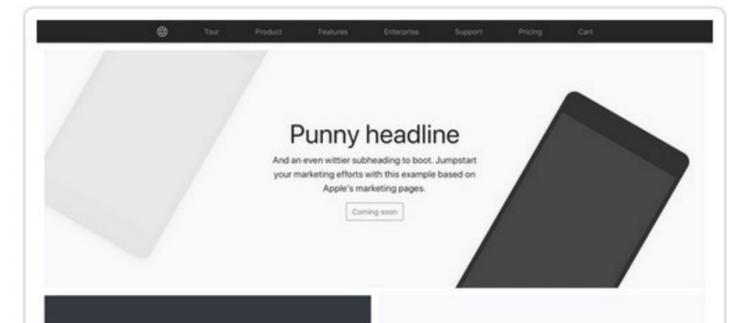
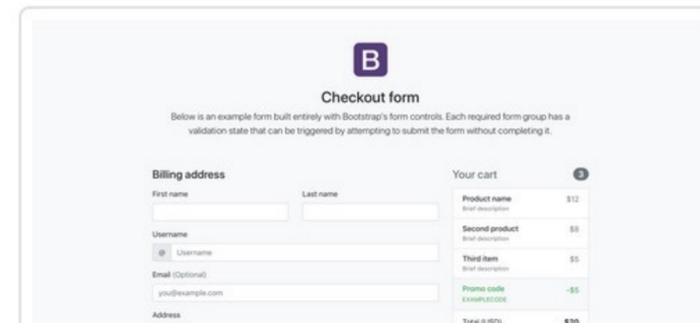
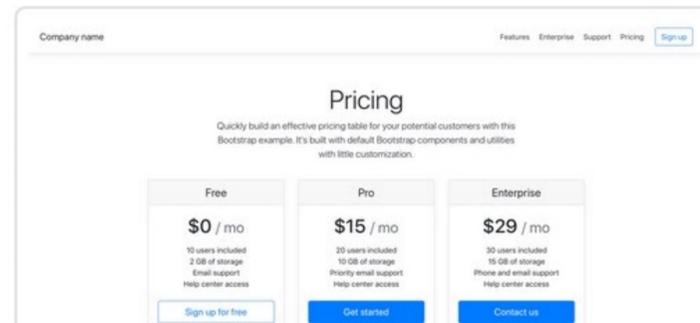
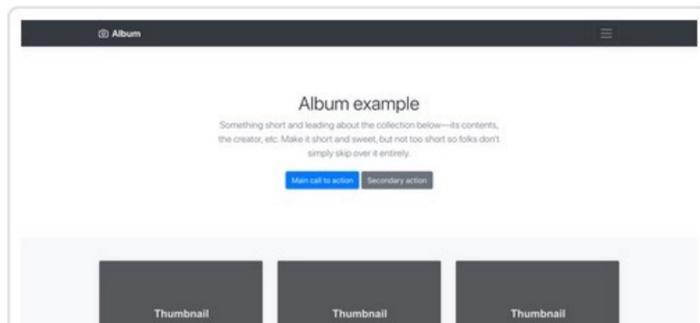
Examples

Quickly get a project started with any of our examples ranging from using parts of the framework to custom components and layouts.

[Download source code](#)

Custom components

Brand new components and templates to help folks quickly get started with Bootstrap and demonstrate best practices for adding onto the framework.





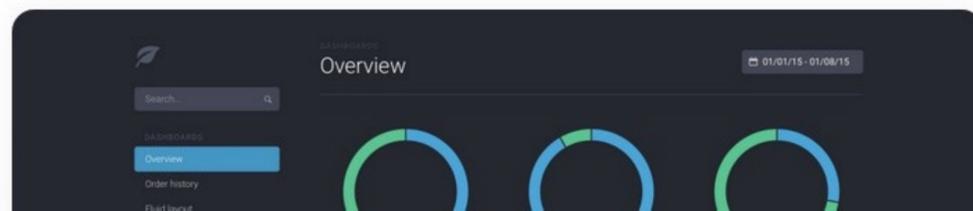
Build anything

Themes built by or reviewed by Bootstrap's creators.

[Why our themes?](#)

Built by Bootstrap Team

Component-based frameworks designed, built, and supported by the Bootstrap Team.



Bootstrap Expo

Beautiful and inspiring uses of Bootstrap, curated by @mdo.

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[About](#)
[Resources](#)

[Suggest a site](#)
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Fully coded UI Tools to create web apps

UI Kits and Dashboards built on top of Bootstrap, Vue.js, React and Angular.



Forbes

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Product Hunt

AWWARDS

CREATIVE BLOG

speckyboy



The Bootstrap Blog

News and announcements for all things Bootstrap, including new releases and Bootstrap Themes.

Bootstrap 4.1.3

24 Jul 2018





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- JavaScript
- Theming
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- Webpack
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- Content
- Components
- Utilities
- Extend
- Migration

Introduction

Get started with Bootstrap, the world's most popular framework for building responsive, mobile-first sites, with BootstrapCDN and a template starter page.

Quick start

Looking to quickly add Bootstrap to your project? Use BootstrapCDN, provided for free by the folks at StackPath. Using a package manager or need to download the source files? [Head to the downloads page.](#)

CSS

Copy-paste the stylesheet `<link>` into your `<head>` before all other stylesheets to load our CSS.

```
<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/cs
```

Copy

- Quick start
 - CSS
 - JS
- Starter template
- Important globals
 - HTML5 doctype
 - Responsive meta tag
 - Box-sizing
 - Reboot
- Community

[Getting started](#)[Layout](#) [Overview](#)[Grid](#)[Media object](#)[Utilities for layout](#)[Content](#)[Components](#)[Utilities](#)[Extend](#)[Migration](#)[About](#)

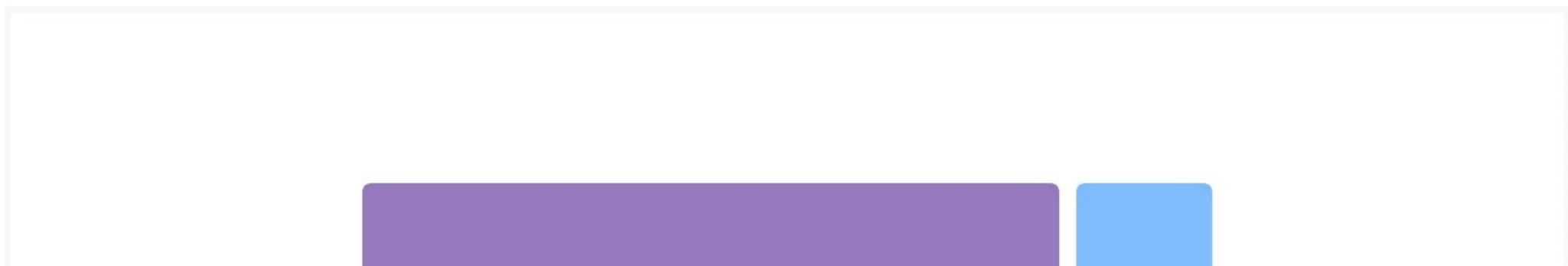
Overview

Components and options for laying out your Bootstrap project, including wrapping containers, a powerful grid system, a flexible media object, and responsive utility classes.

Containers

Containers are the most basic layout element in Bootstrap and are **required when using our default grid system**. Choose from a responsive, fixed-width container (meaning its `max-width` changes at each breakpoint) or fluid-width (meaning it's `100%` wide all the time).

While containers *can* be nested, most layouts do not require a nested container.



- Containers
- Responsive breakpoints
- Z-index

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Reboot

Reboot, a collection of element-specific CSS changes in a single file, kickstart Bootstrap to provide an elegant, consistent, and simple baseline to build upon.

Approach

Reboot builds upon Normalize, providing many HTML elements with somewhat opinionated styles using only element selectors. Additional styling is done only with classes. For example, we reboot some `<table>` styles for a simpler baseline and later provide `.table`, `.table-bordered`, and more.

Here are our guidelines and reasons for choosing what to override in Reboot:

- Update some browser default values to use `rems` instead of `ems` for scalable component spacing.
- Avoid `margin-top`. Vertical margins can collapse, yielding unexpected results. More importantly though, a single direction of `margin` is a simpler mental model.
- For easier scaling across device sizes, block elements should use `rems` for

[Approach](#)[Page defaults](#)[Native font stack](#)[Headings and paragraphs](#)[Lists](#)[Preformatted text](#)[Tables](#)[Forms](#)[Misc elements](#)[Address](#)[Blockquote](#)[Inline elements](#)[Summary](#)[HTML5 \[hidden\] attribute](#)

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Alerts

Provide contextual feedback messages for typical user actions with the handful of available and flexible alert messages.

Examples

Alerts are available for any length of text, as well as an optional dismiss button. For proper styling, use one of the eight **required** contextual classes (e.g., `.alert-success`). For inline dismissal, use the [alerts jQuery plugin](#).

A simple primary alert—check it out!

A simple secondary alert—check it out!

A simple success alert—check it out!

Examples

[Link color](#)[Additional content](#)[Dismissing](#)[JavaScript behavior](#)[Triggers](#)[Methods](#)[Events](#)

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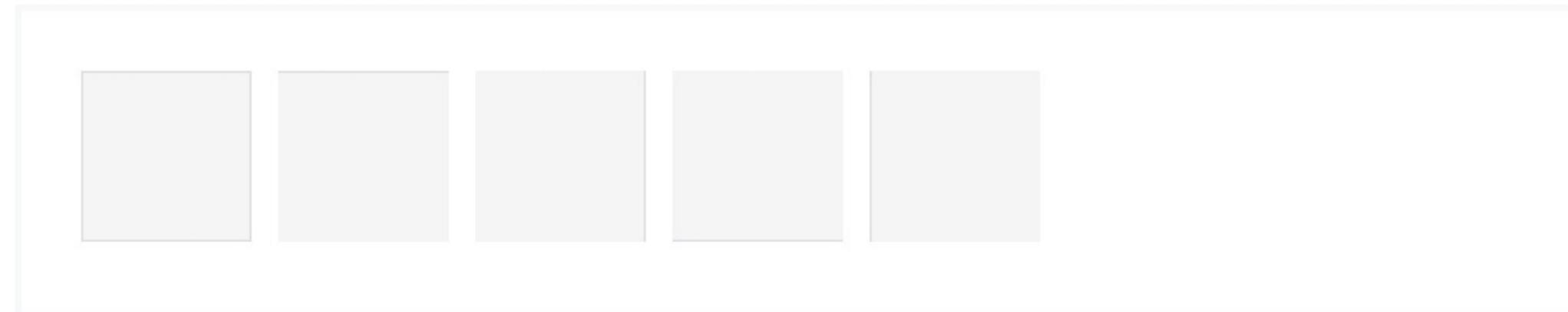
Borders

Use border utilities to quickly style the border and border-radius of an element. Great for images, buttons, or any other element.

Border

Use border utilities to add or remove an element's borders. Choose from all borders or one at a time.

Additive



```
<span class="border"></span>
```

[Copy](#)[Border](#)[Additive](#)[Subtractive](#)[Border color](#)[Border-radius](#)

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Approach

Learn about the guiding principles, strategies, and techniques used to build and maintain Bootstrap so you can more easily customize and extend it yourself.

While the getting started pages provide an introductory tour of the project and what it offers, this document focuses on *why* we do the things we do in Bootstrap. It explains our philosophy to building on the web so that others can learn from us, contribute with us, and help us improve.

See something that doesn't sound right, or perhaps could be done better? [Open an issue](#)—we'd love to discuss it with you.

Summary

We'll dive into each of these more throughout, but at a high level, here's what guides our approach.

- Components should be responsive and mobile-first
- Components should be built with a base class and extended via modifier classes

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Migrating to v4

Bootstrap 4 is a major rewrite of the entire project. The most notable changes are summarized below, followed by more specific changes to relevant components.

Stable changes

Moving from Beta 3 to our stable v4.0 release, there are no breaking changes, but there are some notable changes.

Printing

- Fixed broken print utilities. Previously, using a `.d-print-*` class would unexpectedly overrule any other `.d-*` class. Now, they match our other display utilities and only apply to that media (`@media print`).
- Expanded available print display utilities to match other utilities. Beta 3 and older only had `block`, `inline-block`, `inline`, and `none`. Stable v4 added `flex`, `inline-flex`, `table`, `table-row`, and `table-cell`.
- Fixed print preview rendering across browsers with new print styles that

[Stable changes](#)[Printing](#)[Beta 3 changes](#)[Miscellaneous](#)[Forms](#)[Input groups](#)[Beta 2 changes](#)[Breaking](#)[Highlights](#)[Summary](#)[Browser](#)[support](#)[Global changes](#)[Grid system](#)[Components](#)[By component](#)[Reboot](#)[Typography](#)[Images](#)[Tables](#)[Forms](#)[Buttons](#)[Button group](#)[Dropdowns](#)



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About

Learn more about the team maintaining Bootstrap, how and why the project started, and how to get involved.

Team

Bootstrap is maintained by a [small team of developers](#) on GitHub. We're actively looking to grow this team and would love to hear from you if you're excited about CSS at scale, writing and maintaining vanilla JavaScript plugins, and improving build tooling processes for frontend code.

History

Originally created by a designer and a developer at Twitter, Bootstrap has become one of the most popular front-end frameworks and open source projects in the world.

Bootstrap was created at Twitter in mid-2010 by [@mdo](#) and [@fat](#). Prior to being an open-sourced framework, Bootstrap was known as *Twitter Blueprint*. A few months into development, Twitter held its [first Hack Week](#) and the project

So let's say I want to make some images responsive & interesting looking

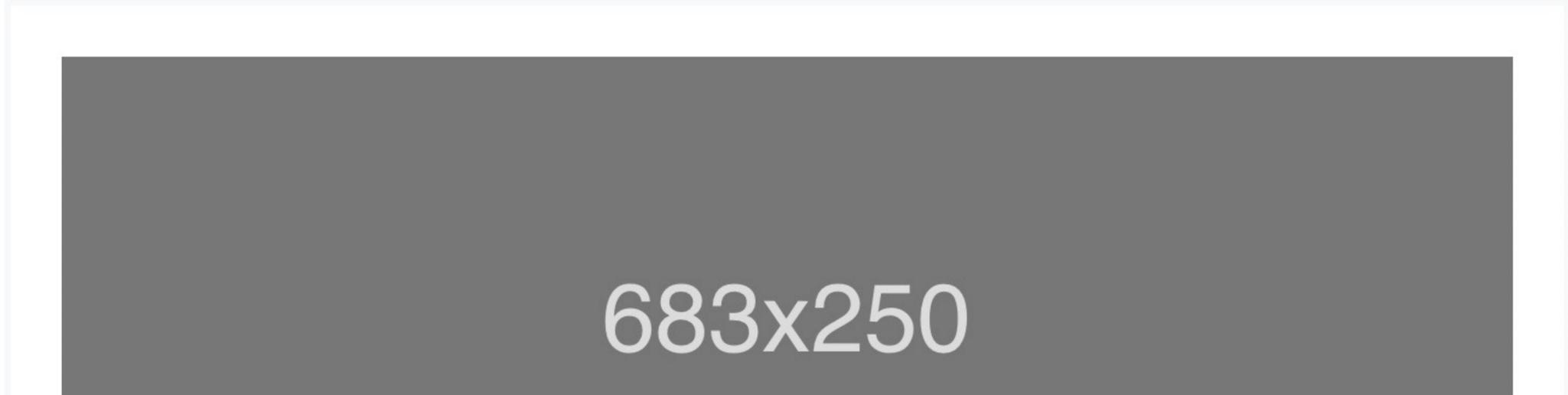
[Getting started](#)[Layout](#)[Content](#)[Reboot](#)[Typography](#)[Code](#)[Images](#)[Tables](#)[Figures](#)[Components](#)[Utilities](#)[Extend](#)[Migration](#)[About](#)

Images

Documentation and examples for opting images into responsive behavior (so they never become larger than their parent elements) and add lightweight styles to them—all via classes.

Responsive images

Images in Bootstrap are made responsive with `.img-fluid.max-width: 100%;` and `height: auto;` are applied to the image so that it scales with the parent element.

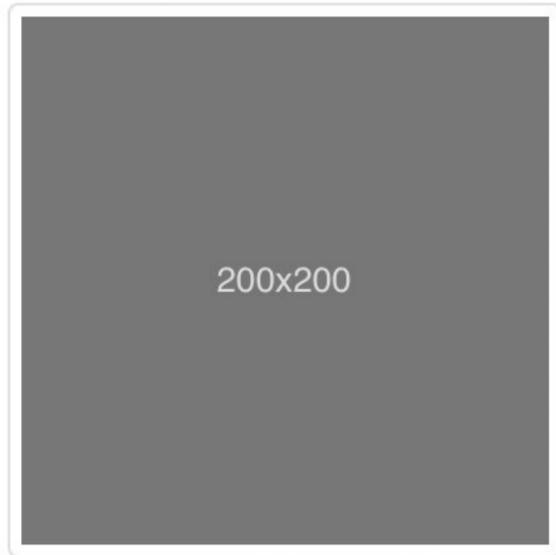


- [Responsive images](#)
- [Image thumbnails](#)
- [Aligning images](#)
- [Picture](#)

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Image thumbnails

In addition to our [border-radius utilities](#), you can use `.img-thumbnail` to give an image a rounded 1px border appearance.



```

```

[Copy](#)[Responsive images](#)[Image thumbnails](#)[Aligning images](#)[Picture](#)

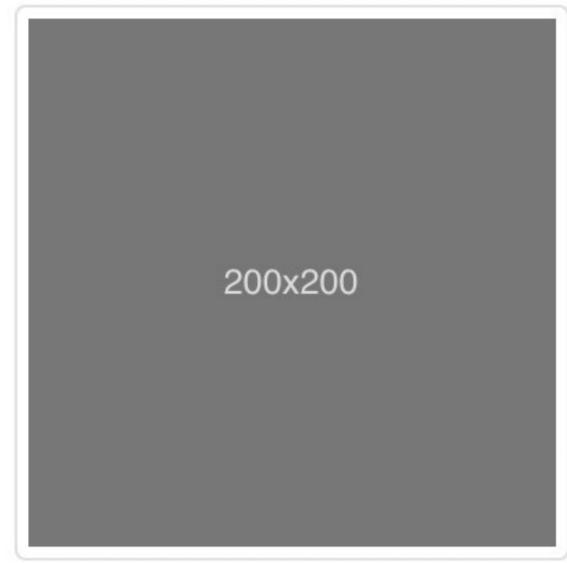
Aligning images

Align images with the [helper float classes](#) or [text alignment classes](#). `block`-level images can be centered using the [.mx-auto margin utility class](#).

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```

```

[Copy](#)[Responsive images](#)[Image thumbnails](#)[Aligning images](#)[Picture](#)

Aligning images

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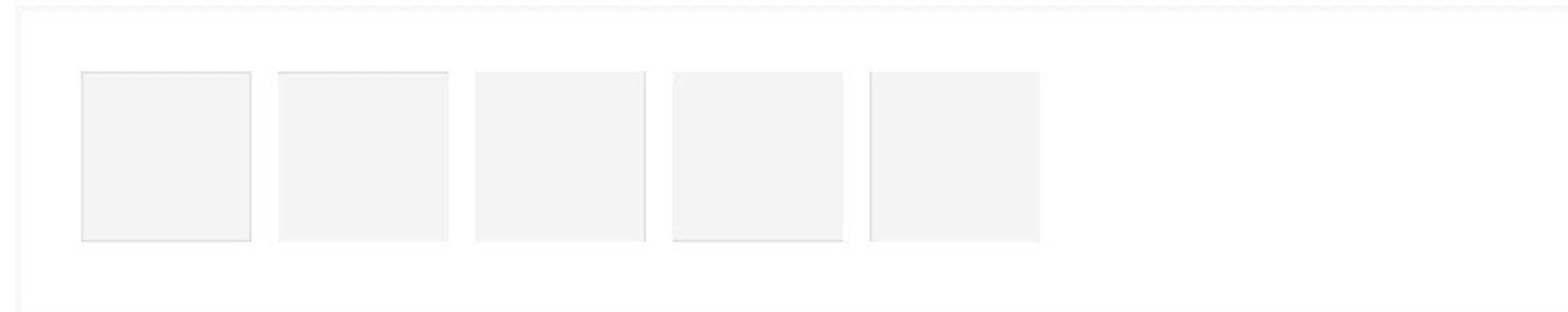
Borders

Use border utilities to quickly style the border and border-radius of an element. Great for images, buttons, or any other element.

Border

Use border utilities to add or remove an element's borders. Choose from all borders or one at a time.

Additive



```
<span class="border"></span>
```

[Copy](#)[Border](#)[Additive](#)[Subtractive](#)[Border color](#)[Border-radius](#)

[Getting started](#)[Layout](#)[Content](#)[Components](#)[Utilities](#)[Borders](#)[Clearfix](#)[Close icon](#)[Colors](#)[Display](#)[Embed](#)[Flex](#)[Float](#)[Image replacement](#)[Position](#)[Screenreaders](#)[Utilities](#)

```

<span class="border border-warning"></span>
<span class="border border-info"></span>
<span class="border border-light"></span>
<span class="border border-dark"></span>
<span class="border border-white"></span>

```

- Border
- Additive
- Subtractive
- Border color
- Border-radius

Border-radius

Add classes to an element to easily round its corners.



```









```

[Copy](#)

Once you start using Bootstrap, you will sometimes want to override its CSS

1. Use your browser's Inspector to find the exact selector & declaration that Bootstrap uses in `bootstrap.css`
2. Copy that selector & declaration & then paste them into your `main.css`
3. Enter a new value in the declaration

An easy example, with an easy selector

complications to other image formats.

```

```

Copy

Image shapes

Add classes to an `` element to easily style images in any project.

Cross-browser compatibility

Keep in mind that Internet Explorer 8 lacks support for rounded corners.

EXAMPLE



```
  
  

```

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Grid system

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Responsive images

Image shapes

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Responsive utilities

Using Less

Using Sass

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I decide to add rounded corners to an image, so I check out what class to use at getbootstrap.com

bootstrap-example-2015-04-30

config.codekit

css

fonts

index.html

js

```
33 </p>
34 <p>
35     Vivamus fermentum semper porta. Nunc diam velit,
    adipiscing ut tristique vitae, sagittis vel odio. Maecenas
    convallis ullamcorper ultricies. Curabitur ornare, ligula
    semper consectetur sagittis, nisi diam iaculis velit, id
    fringilla sem nunc vel mi. Nam dictum, odio nec pretium
    volutpat, arcu ante placerat erat, non tristique elit urna
    et turpis. Quisque mi metus, ornare sit amet fermentum et,
    tincidunt et orci. Fusce eget orci a orci congue vestibulum.
36 </p>
37 <p>
38     
39 </p>
40 <table class="table table-bordered table-hover">
41 <tr>
42     <th>Movie</th>
43     <th>Genre</th>
44     <th>Hero</th>
45     <th>Year</th>
46     <th>Star</th>
47     <th>Director</th>
48 </tr>
```

I add it to my code

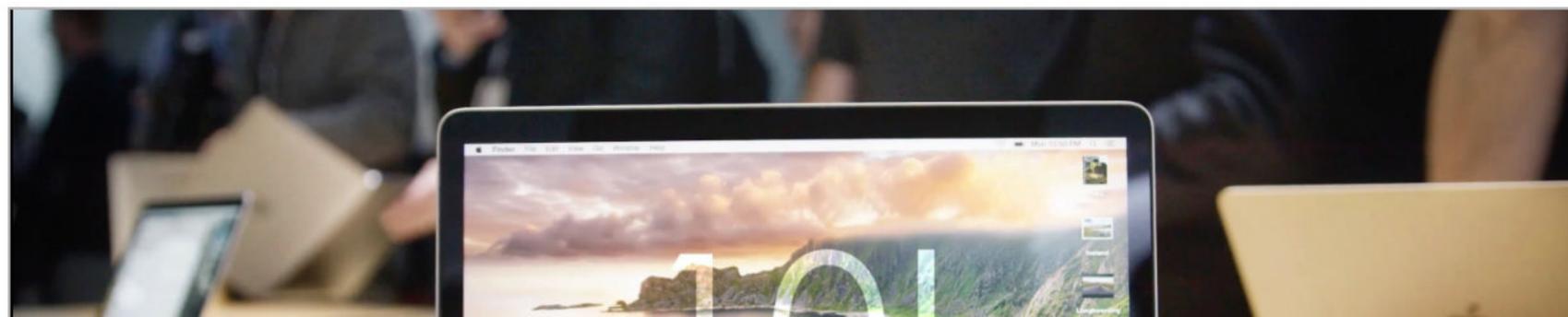
Ut turpis felis, pulvinar a semper sed, adipiscing id dolor.

Pellentesque auctor nisi id magna consequat sagittis. Curabitur dapibus enim sit amet elit pharetra tincidunt feugiat nisl imperdiet. Ut convallis libero in urna ultrices accumsan. Donec sed odio eros. Donec viverra mi quis quam pulvinar at malesuada arcu rhoncus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. In rutrum accumsan ultricies. Mauris vitae nisi at sem facilisis semper ac in est.

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula semper consectetur sagittis, nisi diam iaculis velit, id fringilla sem nunc vel mi. Nam dictum, odio nec pretium volutpat, arcu ante placerat erat, non tristique elit urna et turpis. Quisque mi metus, ornare sit amet fermentum et, tincidunt et orci. Fusce eget orci a orci congue vestibulum.

900 x 150

Movie	Genre	Hero	Year	Star	Director
Die Hard	Action	John McClane	1988	Bruce Willis	John McTiernan
Star Wars	Sci-Fi	Luke Skywalker	1977	Mark Hamill	George Lucas
John Wick	Action	John Wick	2014	Keanu Reeves	Chad Stahelski



It looks OK, but I'd like the corners to be more rounded than Bootstrap's default

tincidunt feugiat nisl imperdiet. Ut convallis libero in urna ultrices accumsan. Donec sed odio eros. Donec viverra mi quis quam pulvinar at malesuada arcu rhoncus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. In rutrum accumsan ultricies. Mauris vitae nisi at sem facilisis semper ac in est.

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula semper consectetur sagittis, nisi diam iaculis velit, id fringilla sem nunc vel mi. Nam dictum, odio nec pretium volutpat, arcu ante placerat erat, non tristique elit urna et turpis. Quisque mi metus, ornare sit amet fermentum et, tincidunt et orci. Fusce eget orci a orci congue vestibulum.

900 x 150

Movie	Genre	Hero	Year	Star	Director
Die Hard	Action	John McClane	1988	Bruce Willis	John McTiernan
Star Wars	Sci-Fi	Luke Skywalker	1977	Mark Hamill	George Lucas

I open the browser's Inspector, select the image, & see the rule that Bootstrap has defined

The screenshot shows a web browser's developer tools interface. The top part displays a table of movies. Below the table, a placeholder image with dimensions 900 x 150 is shown. The browser's developer tools are open, showing the DOM tree on the left and the CSS rules on the right. The DOM tree highlights the image element with the following code: ``. The CSS rules on the right show the following styles: `.img-rounded` with `border-radius: 6px;` and `.img-responsive, .thumbnail` with `display: block;` and `max-width: 100%;`. Two yellow arrows point from the text box to the image in the DOM tree and the CSS rules.

```
1  /* Bootstrap overrides */
2
3  ▼ .img-rounded {
4     border-radius: 20px;
5  }
6
7  ▼ .table-hover > tbody > tr:hover {
8     background-color: cornsilk;
9  }
10
11 ▼ .breadcrumb > li + li:before {
12     content: ">\00a0";
13 }
14
15 ▼ .breadcrumb > .active {
16     color: darkslategray;
17     font-weight: 700;
18 }
19
20 /* End Bootstrap overrides */
21
22 /* Original Styles */
23
```

I edit my code, using the same class name as Bootstrap does, & change the value of the **border-radius** property

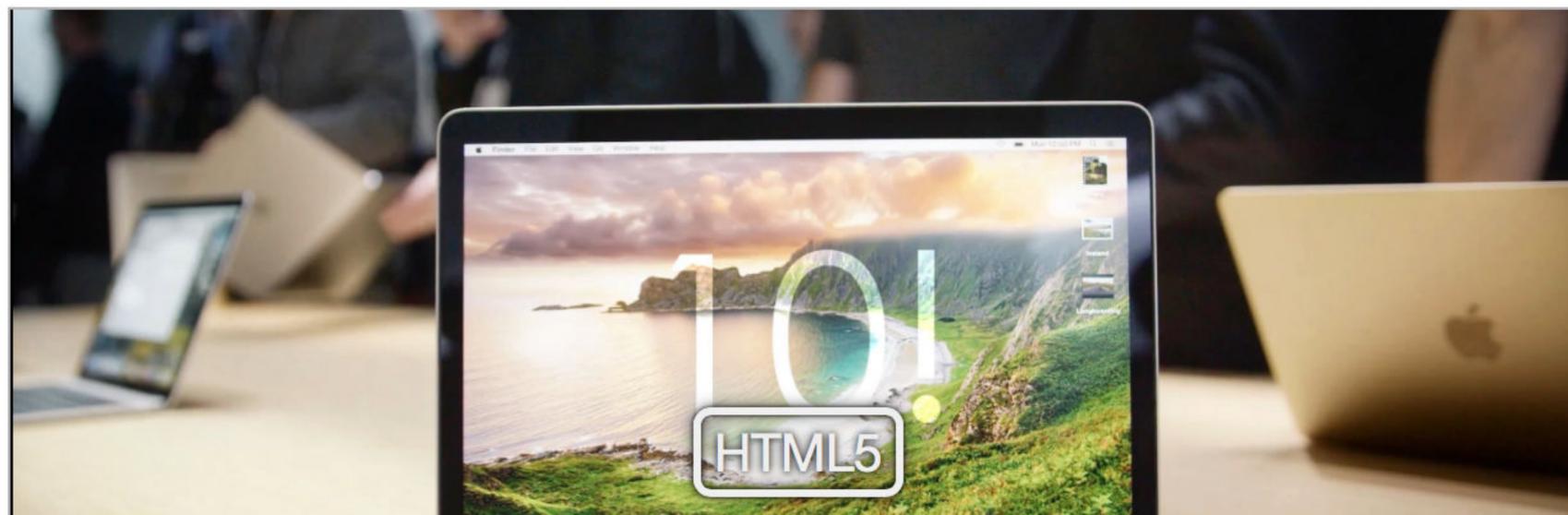
tincidunt feugiat nisl imperdiet. Ut convallis libero in urna ultrices accumsan. Donec sed odio eros. Donec viverra mi quis quam pulvinar at malesuada arcu rhoncus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. In rutrum accumsan ultricies. Mauris vitae nisi at sem facilisis semper ac in est.

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula semper consectetur sagittis, nisi diam iaculis velit, id fringilla sem nunc vel mi. Nam dictum, odio nec pretium volutpat, arcu ante placerat erat, non tristique elit urna et turpis. Quisque mi metus, ornare sit amet fermentum et, tincidunt et orci. Fusce eget orci a orci congue vestibulum.

900 x 150

Movie	Genre	Hero	Year	Star	Director
Die Hard	Action	John McClane	1988	Bruce Willis	John McTiernan
Star Wars	Sci-Fi	Luke Skywalker	1977	Mark Hamill	George Lucas
John Wick	Action	John Wick	2014	Keanu Reeves	Chad Stahelski

Now the corners are more rounded than Bootstrap's default!



A more complex example

Hello, world!

My first Bootstrap page

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor. Praesent et diam eget libero egestas mattis sit amet vitae augue. Nam tincidunt congue enim, ut porta lorem lacinia consectetur. Donec ut libero sed arcu vehicula ultricies a non tortor. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean ut gravida lorem. Ut turpis felis, pulvinar a semper sed, adipiscing id dolor

This page needs a breadcrumb trail to indicate hierarchy & wayfinding

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula semper consectetur sagittis, nisi diam iaculis velit, id fringilla sem nunc vel mi. Nam dictum, odio nec pretium volutpat, arcu ante placerat erat, non tristique elit urna et turpis. Quisque mi metus, ornare sit amet fermentum et, tincidunt et orci. Fusce eget orci a orci congue vestibulum.

Breadcrumbs

Indicate the current page's location within a navigational hierarchy.

Separators are automatically added in CSS through `:before` and `content`.

EXAMPLE

Home

Home / Library

Home / Library / Data

```
<ol class="breadcrumb">
  <li><a href="#">Home</a></li>
  <li><a href="#">Library</a></li>
  <li class="active">Data</li>
</ol>
```

Bootstrap says to use this HTML structure & CSS classes to create a breadcrumb

Pagination

Provide pagination links for your site or app with the multi-page pagination component, or the simpler [page alternative](#).

Glyphicons

Dropdowns

Button groups

Button dropdowns

Input groups

Navs

Navbar

Breadcrumbs

Pagination

Labels

Badges

Jumbotron

Page header

Thumbnail

Alerts

Progress bars

Media object

ListGroup

Tables

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Wells

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Working Files



<> index.html

scott.css

bootstrap-example-2015-04-30 ▾

config.codekit

▾ css

bootstrap.css

scott.css

▸ fonts

<> index.html

▸ js

```
11
12 | | <script
    src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.2/jqu
    ery.min.js"></script>
13 | | <script src="js/bootstrap.js"></script>
14 | | </head>
15 | | <body>
16 | | <main class="container">
17 | | <ol class="breadcrumb">
18 | |   <li>Home</li>
19 | |   <li>Products</li>
20 | |   <li>Widgets</li>
21 | |   <li class="active">Widget 1000</li>
22 | | </ol>
23 | | <h1>Hello, world!
    page</small></h1>
24
25 | | <div class="row">
26 | |   <article class="col-sm-8">
27 | |     <h2>Article Title</h2>
28 | |     <p class="lead">
29 | |       Lorem ipsum dolor sit amet, consectetur
    adipiscing elit. Donec a diam lectus. Sed sit amet ipsum
```

I add it to my code



Hello, world!

My first Bootstrap page

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor. Praesent et diam eget libero egestas mattis sit amet vitae augue. Nam tincidunt congue enim, ut porta lorem lacinia consectetur. Donec ut libero sed arcu vehicula ultricies a non tortor. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean ut

I really don't like the / that Bootstrap uses as a default separator, since it's confusing & ugly

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula semper consectetur sagittis, nisi diam iaculis velit, id fringilla sem nunc vel mi. Nam dictum, odio nec pretium volutpat, arcu ante placerat erat, non tristique elit urna et turpis. Quisque mi metus, ornare sit amet fermentum et, tincidunt et orci. Fusce eget orci a orci congue vestibulum.

Hello, world!

My first Bootstrap page

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula

I open the browser's Inspector, select the breadcrumb, & see the rule that Bootstrap uses

The screenshot shows a browser window with the developer tools open. The breadcrumb 'Widget 1000' is selected in the DOM tree. The Rules panel shows the following CSS rule:

```
.breadcrumb > li + li::before  
- bootstrap.css:4606  
padding: 0 5px;  
color: #ccc;  
content: "\00a0";
```

Another rule is also visible in the Rules panel:

```
::before, ::after  
- bootstrap.css:1077  
-webkit-box-sizing: border-box;  
-moz-box-sizing: border-box;  
box-sizing: border-box;
```

Working Files



<> index.html

scott.css

bootstrap-example-2015-04-30 ▾

config.codekit

▾ css

bootstrap.css

scott.css

▸ fonts

<> index.html

▸ js

```
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="utf-8">
5     <meta http-equiv="X-UA-Compatible" content="IE=edge">
6     <meta name="viewport" content="width=device-width,
7       initial-scale=1">
8     <title>Bootstrap 101 Template</title>
9     <link href="css/bootstrap.css" rel="stylesheet">
10    <link href="css/scott.css" rel="stylesheet">
11
12    <script
13      src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.3/jquery.min.js"></script>
14    <script src="js/bootstrap.js"></script>
15  </head>
16  <body>
17    <main class="container">
18      <!--
19      <ol class="breadcrumb">
20        <li>Home</li>
21        <li>Products</li>
```

My CSS comes *after* Bootstrap's so that mine has more weight according to the Cascade



```
1  /* Bootstrap overrides */
2
3  ▼ .img-rounded {
4    |   border-radius: 20px;
5    | }
6
7  ▼ .table-hover > tbody > tr:hover {
8    |   background-color: cornsilk;
9    | }
10
11 ▼ .breadcrumb > li + li::before {
12 |   content: "➤\00a0";
13 | }
14
15 ▼ .breadcrumb > .active {
16 |   color: darkslategray;
17 |   font-weight: 700;
18 | }
19
20 /* End Bootstrap overrides */
21
22 /* Original styles */
23
```

I edit my CSS, using the same selector Bootstrap does, & change only the value of the **content** property (the ➤ is a Unicode symbol)

Hello, world!

My first Bootstrap page

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula

Much better!—& notice that the browser's Inspector shows that my CSS weighs more than Bootstrap's

The screenshot shows a web browser window with a breadcrumb navigation menu. The breadcrumb consists of four items: Home, Products, Widgets, and Widget 1000. The 'Widget 1000' item is highlighted with a blue background and the class 'active'. A yellow arrow points from the 'Widget 1000' breadcrumb item to a text box that says 'Much better!—& notice that the browser's Inspector shows that my CSS weighs more than Bootstrap's'. Another yellow arrow points from the text box to the CSS inspector panel. The CSS inspector shows the following rules:

- `.breadcrumb > li + li::before` (from `scott.css:11`)
 - `content: ">\00a0";`
- `.breadcrumb > li + li::before` (from `bootstrap.css:4606`)
 - `padding: 0 5px;`
 - `color: #ccc;`
 - `content: "/\00a0";`
- `::before, ::after` (from `bootstrap.css:1077`)

Grid System

When you lay things out using Bootstrap, you do *not* use `px` or `em` or `%`

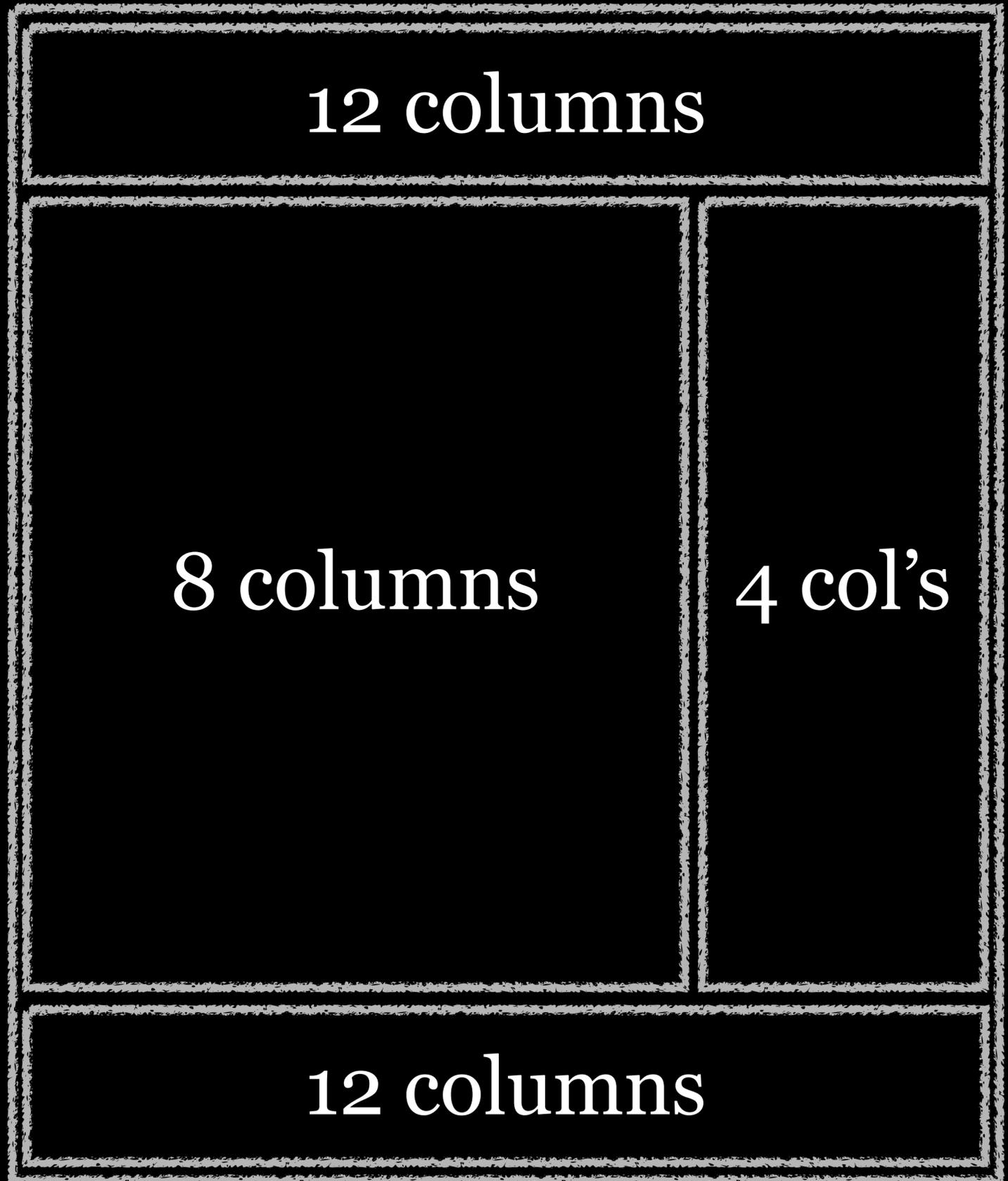
Instead, you use *columns* (that must add up to 12 in Bootstrap 3 & may or may not in Bootstrap 4)

100%

75%

25%

100%



Bootstrap 3

Desktops	lg	≥1200 px
Tablets (landscape)	md	≥922 px
Tablets (portrait)	sm	≥768 px
Phones	xs	<768 px

Bootstrap 3			Bootstrap 4		
Desktops	lg	≥1200 px	≥1200 px	xl	Large desktops
Tablets (landscape)	md	≥922 px	≥922 px	lg	Desktops
Tablets (portrait)	sm	≥768 px	≥768 px	md	Tablets
Phones	xs	<768 px	≥576 px	sm	Phones (landscape)
			<576 px	*	Phones (portrait)

Bootstrap 4			Bootstrap 5		
			$\geq 1400\text{px}$	xxl	Really large desktops
Large desktops	xl	$\geq 1200\text{px}$	$\geq 1200\text{px}$	xl	Large desktops
Desktops	lg	$\geq 992\text{px}$	$\geq 992\text{px}$	lg	Desktops
Tablets	md	$\geq 768\text{px}$	$\geq 768\text{px}$	md	Tablets
Phones (landscape)	sm	$\geq 576\text{px}$	$\geq 576\text{px}$	sm	Phones (landscape)
Phones (portrait)	*	$< 576\text{px}$	$< 576\text{px}$	*	Phones (portrait)

Columns go inside rows, & rows go inside containers

```
<main class="container">
```

```
<div class="row">
```

```
<article class="col-sm-8">
```

...

```
</article>
```

Column

```
<aside class="col-sm-4">
```

...

```
</aside>
```

Column

```
</div>
```

Row

```
</main>
```

Container

Content (e.g., text & images) goes inside elements with CSS classes (e.g., `col-md-8`) that turn those elements into columns & define...

- » the size of the *breakpoint* at which changes to column widths happen (e.g., `-md`)
- » how many column *widths* they span, between 1–12 (e.g., `-8`)

Columns go inside elements with a CSS class of `row`

Rows go inside elements with a CSS class of `container`

```
<main class="container">
  <div class="row">
    <article class="col-sm-8">
      ...
    </article>
    <aside class="col-sm-4">
      ...
    </aside>
  </div>
</main>
```

```
<main class="container">
  <div class="row">
    <article class="col-sm-8">
      ...
      </article>      Column
    <aside class="col-sm-4">
      ...
      </aside>      Column
    </div>
  </main>
```

```
<main class="container">
```

```
<div class="row">
```

```
<article class="col-sm-8">
```

...

```
</article>
```

Column

```
<aside class="col-sm-4">
```

...

```
</aside>
```

Column

```
</div>
```

Row

```
</main>
```

```
<main class="container">
```

```
<div class="row">
```

```
<article class="col-sm-8">
```

...

```
</article>
```

Column

```
<aside class="col-sm-4">
```

...

```
</aside>
```

Column

```
</div>
```

Row

```
</main>
```

Container

```
<body>
  <main>
    <div>
      <article class="col-sm-8"> ... </article>
      <aside class="col-sm-4"> ... </aside>
    </div>
  </main>
</body>
```

This does *not* work—no container & no row

```
<body>
  <main class="container">
    <div>
      <article class="col-sm-8"> ... </article>
      <aside class="col-sm-4"> ... </aside>
    </div>
  </main>
</body>
```

This does *not* work—no row

```
<body>
  <main>
    <div class="row">
      <article class="col-sm-8"> ... </article>
      <aside class="col-sm-4"> ... </aside>
    </div>
  </main>
</body>
```

This does *not* work—no container

```
<body>
  <main class="container">
    <div class="row">
      <article> ... </article>
      <aside> ... </aside>
    </div>
  </main>
</body>
```

This does *not* work—no columns

```
<body>
  <main class="container">
    <div class="row">
      <article class="col-sm-8"> ... </article>
      <aside> ... </aside>
    </div>
  </main>
</body>
```

This does *not* work—columns don't add up to 12

```
<body>
  <main class="container">
    <div class="row">
      <article class="col-sm-8"> ... </article>
      <aside class="col-sm-4"> ... </aside>
    </div>
  </main>
</body>
```

This works!

Containers

The grid system requires an element with a class of `container` on it to create a responsive container for rows

```
<div class="container">  
  ...  
</div>
```

Containers are *not* nestable

```

1 <main>
2 <!-- <main
   class="container"> -->
3 <h1>Hello, world!</h1>
4 <article>
5   <h2>Article Title</h2>
6   <p></p>
11  <p></p>
15  <p></p>
19 </article>
20 <aside>
21 <h2>Aside Title</h2>
22 <p></p>
26 </aside>
27 </main>

```

Hello, world!

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor. Praesent et diam eget libero egestas mattis sit amet vitae augue. Nam tincidunt congue enim, ut porta lorem lacinia consectetur. Donec ut libero sed arcu vehicula ultricies a non tortor. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean ut gravida lorem. Ut turpis felis, pulvinar a semper sed, adipiscing id dolor.

Pellentesque auctor nisi id magna consequat sagittis. Curabitur dapibus enim sit amet elit pharetra tincidunt feugiat nisl imperdiet. Ut convallis libero in urna ultrices accumsan. Donec sed odio eros. Donec viverra mi quis quam pulvinar at malesuada arcu rhoncus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. In rutrum accumsan ultricies. Mauris vitae nisi at sem facilisis semper ac in est.

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula semper consectetur sagittis, nisi diam iaculis velit, id fringilla

```

1 <!-- <main> -->
2 <main class="container">
3   <h1>Hello, world!</h1>
4   <article>
5     <h2>Article Title</h2>
6     <p></p>
11    <p></p>
15    <p></p>
19  </article>
20  <aside>
21    <h2>Aside Title</h2>
22    <p></p>
26  </aside>
27 </main>

```

Hello, world!

Article Title

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Pellentesque auctor nisi id magna consequat sagittis. Curabitur dapibus enim sit amet elit pharetra tincidunt feugiat nisl imperdiet. Ut convallis libero in urna ultrices accumsan. Donec sed odio eros. Donec viverra mi quis quam pulvinar at malesuada arcu rhoncus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. In rutrum accumsan ultricies. Mauris vitae nisi at sem facilisis semper ac in est.

Hello, world!

Article Title

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Pellentesque auctor nisi id magna consequat sagittis. Curabitur dapibus enim sit amet elit pharetra tincidunt feugiat nisl imperdiet. Ut convallis libero in urna ultrices accumsan. Donec sed odio eros. Donec viverra mi quis quam pulvinar at malesuada arcu rhoncus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. In rutrum accumsan ultricies. Mauris vitae nisi at sem facilisis semper ac in est.

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula semper consectetur sagittis, nisi diam iaculis velit, id fringilla sem nunc vel mi. Nam dictum, odio nec pretium volutpat, arcu ante placerat erat, non tristique elit urna et turpis. Quisque mi metus, ornare sit amet fermentum et, tincidunt et orci. Fusce eget orci a orci congue vestibulum.

Size	Devices	Container Widths
xl	Large desktops	1140px
lg	Desktops	960px
md	Tablets	720px
sm	Landscape phones	540px
*	Portrait phones	100%

Bootstrap 4 breakpoints & container widths

Rows

Any element that is going to have horizontal groups of columns in it must...

- » be a child of the `container` element
- » have a class of `row` on it

```
<div
class="container">
  <div class="row">
    <article>
      ...
    </article>
    <aside>
      ...
    </aside>
  </div>
</div>
```



```
HTML Tidy
1 <main class="container">
2   <h1>Hello, world!</h1>
3   <div class="row">
4     <article>
5       <h2>Article Title</h2>
6       <p></p>
11      <p></p>
15      <p></p>
19    </article>
20    <aside>
21      <h2>Aside Title</h2>
22      <p></p>
26    </aside>
27  </div>
28 </main>
```

Hello, world!

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor. Praesent et diam eget libero egestas mattis sit amet vitae augue. Nam tincidunt congue enim, ut porta lorem lacinia consectetur. Donec ut libero sed arcu vehicula ultricies a non tortor. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean ut gravida lorem. Ut turpis felis, pulvinar a semper sed, adipiscing id dolor.

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Ut curabitur feugiat, malesuada eros nec dui in consectetur. Nam dui magna, a ligula quis, molestie dui. Sed a nulla facilis, nisi in, magna dui. Donec et odio molestie mauris, a varius turpis in quam. Proin nunc diam, facilisis quis, lacinia ut, dapibus non, elit. Duis ut odio eget, nibh varius semper hendrerit, nunc magna. Donec et odio molestie mauris, a varius turpis in quam. Proin nunc diam, facilisis quis, lacinia ut, dapibus non, elit. Duis ut odio eget, nibh varius semper hendrerit, nunc magna.

The `container` element can have other children besides `row` elements

Anything that you always want to span the full width of the `container` element does not need to be inside the `row` element(s)

- » Headings (e.g., `<h1>`)
- » `<header>`
- » `<footer>`
- » Horizontal navigation bar

```
1 <main class="container">
2   <h1>Hello, world!</h1>
3   <div class="row">
4     <article>
5       <h2>Article Title</h2>
6       <p></p>
11      <p></p>
15      <p></p>
19    </article>
20    <aside>
21      <h2>Aside Title</h2>
22      <p></p>
26    </aside>
27  </div>
28 </main>
```

Hello, world!

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor. Praesent et diam eget libero egestas mattis sit amet vitae augue. Nam tincidunt congue enim, ut porta lorem lacinia consectetur. Donec ut libero sed arcu vehicula ultricies a non tortor. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean ut gravida lorem. Ut turpis felis, pulvinar a semper sed, adipiscing id dolor.

Pellentesque auctor nisi id magna consequat sagittis. Curabitur dapibus enim sit amet elit pharetra tincidunt feugiat nisl imperdiet. Ut convallis libero in urna ultrices accumsan. Donec sed odio eros. Donec viverra mi quis quam pulvinar at malesuada arcu rhoncus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. In rutrum accumsan ultricies. Mauris vitae nisi at sem facilisis semper ac in est.

Ut curabitur feugiat, malesuada eros nec dui in consectetur. Nam...

The only immediate children allowed inside rows?

Columns

Columns

	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	Extra large ≥1200px
Max container width	None (auto)	540px	720px	960px	1140px
Class prefix	<code>.col-</code>	<code>.col-sm-</code>	<code>.col-md-</code>	<code>.col-lg-</code>	<code>.col-xl-</code>
# of columns	12				
Gutter width	30px (15px on each side of a column)				
Nestable	Yes				
Column ordering	Yes				

Remember those 12 columns that Bootstrap uses?

Content that is responsive (e.g., text & images) goes inside elements with CSS classes (e.g., `col-md-8`) that turn those elements into columns & define...

- » the size of the breakpoint at which changes to column widths happen (e.g., `-md`)
- » how many column widths they span, between 1–12 (e.g., `-8`)

If all the columns will be same width with every viewport, you can just use `col`

```
<div class="row">  
  <div class="col">  
    1 of 3  
  </div>  
  <div class="col">  
    2 of 3  
  </div>  
  <div class="col">  
    3 of 3  
  </div>  
</div>
```

If one column has a set width & the others can automatically resize, you can easily accommodate that

```
<div class="row">  
  <div class="col">  
    1 of 3  
  </div>  
  <div class="col-5">  
    2 of 3  
  </div>  
  <div class="col">  
    3 of 3  
  </div>  
</div>
```

HTML	CSS
Written by you	In <code>bootstrap.css</code>
<code>class="col-lg-6"</code>	<code>.col-lg-6 {}</code>
<code>class="col-md-6"</code>	<code>.col-md-6 {}</code>
<code>class="col-sm-6"</code>	<code>.col-sm-6 {}</code>
<code>class="col-xs-6"</code>	<code>.col-xs-6 {}</code>



Bootstrap is mobile-first

Therefore, the default width is always...

- » 12 columns
which is the same as...
- » 100% width
which is the same as...
- » full width



lg	The lg column inherits the size of the md column
md	The md column inherits the size of the sm column
sm	The sm column inherits the size of the xs column
xs	A size is set for an xs column (e.g., <code>col-xs-6</code>)

Bootstrap is mobile-first

Because the default width of a column is 12 (unless overridden) & because column sizes are inherited from `xs` up to `lg`, this would be unnecessary:

```
<div class="col-xs-12 col-sm-12 col-md-8  
col-lg-8">
```

What should it be?

Because the default width of a column is 12 (unless overridden) & because column sizes are inherited from `xs` up to `lg`, this would be unnecessary:

```
<div class="col-xs-12 col-sm-12 col-md-8  
col-lg-8">
```

What should it be?

```
<div class="col-md-8">
```

💡 PRO TIP

If you want an element to be 12 columns, you *cannot* do this:

```
<div>
```

Bootstrap's CSS isn't invoked, so there are *not* any columns

You must instead do this:

```
<div class="col-xs-12">
```

Size Name	Device	Column Width
Extra Small (xs)	Phones	Fluid
Small (sm)	Tablets	60px
Medium (md)	Tablets in portrait & desktops	78px
Large (lg)	Desktops	95px

15px gutter around each column

```

1 <main class="container">
2   <h1>Hello, world!</h1>
3   <div class="row">
4     <article class="col-sm-8">
5       <h2>Article Title</h2>
6       <p></p>
11      <p></p>
15      <p></p>
19    </article>
20    <aside class="col-sm-4">
21      <h2>Aside Title</h2>
22      <p></p>
26    </aside>
27  </div>
28 </main>

```

Hello, world!

Article Title

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor. Praesent et diam eget libero egestas mattis sit amet vitae augue. Nam tincidunt congue enim, ut porta lorem lacinia consectetur. Donec ut libero sed arcu vehicula ultricies a non tortor. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean ut gravida lorem. Ut turpis felis, pulvinar a semper sed, adipiscing id dolor.

Pellentesque auctor nisi id magna consequat sagittis. Curabitur dapibus enim sit amet elit pharetra tincidunt feugiat nisl

Aside Title

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula semper consectetur sagittis, nisi diam iaculis velit, id fringilla sem nunc vel mi. Nam dictum, odio nec pretium

```
1 <main class="container">
2   <h1>Hello, world!</h1>
3   <div class="row">
4     <article class="col-sm-8">
5       <h2>Article Title</h2>
6       <p></p>
11      <p></p>
15      <p></p>
19    </article>
20    <aside class="col-sm-4">
21      <h2>Aside Title</h2>
22      <p></p>
26    </aside>
27  </div>
28 </main>
```

Hello, world!

Article Title

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Pellentesque auctor nisi id magna consequat sagittis. Curabitur dapibus enim sit amet elit pharetra tincidunt feugiat nisl imperdiet. Ut convallis libero in urna ultrices accumsan. Donec sed odio eros. Donec viverra mi quis quam pulvinar at malesuada arcu rhoncus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. In rutrum accumsan ultricies.

Mauris vitae nisi at sem facilisis semper ac in est.

```
HTML Tidy
1 <main class="container">
2   <h1>Hello, world!</h1>
3   <div class="row">
4     <article class="col-sm-8">
5       <h2>Article Title</h2>
6       <p></p>
11      <p></p>
15      <p></p>
19    </article>
20    <aside class="col-sm-4">
21      <h2>Aside Title</h2>
22      <p></p>
26    </aside>
27  </div>
28 </main>
```

odio eros. Donec viverra mi quis quam pulvinar at malesuada arcu rhoncus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. In rutrum accumsan ultricies. Mauris vitae nisi at sem facilisis semper ac in est.

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula semper consectetur sagittis, nisi diam iaculis velit, id fringilla sem nunc vel mi. Nam dictum, odio nec pretium volutpat, arcu ante placerat erat, non tristique elit urna et turpis. Quisque mi metus, ornare sit amet fermentum et, tincidunt et orci. Fusce eget orci a orci congue vestibulum.

Aside Title

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae, sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula semper consectetur sagittis, nisi diam iaculis velit, id fringilla sem nunc vel mi. Nam dictum, odio nec pretium volutpat, arcu ante placerat erat, non tristique elit urna et turpis. Quisque mi metus, ornare sit amet fermentum et, tincidunt et orci. Fusce eget orci a orci congue vestibulum.

```
HTML
1 <main class="container">
2   <footer class="row">
3     <section class="col-sm-4">
4       <h2>Section 1</h2>
5       <p></p>
8     </section>
9     <section class="col-sm-4">
10      <h2>Section 2</h2>
11      <p></p>
14     </section>
15     <section class="col-sm-4">
16      <h2>Section 3</h2>
17      <p></p>
20     </section>
21   </footer>
22 </main>

CSS
JS
```

Section 1

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor.

Section 2

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor.

Section 3

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor.

HTML

```
1 <main class="container">
2   <footer class="row">
3     <section class="col-sm-4">
4       <h2>Section 1</h2>
5       <p></p>
8     </section>
9     <section class="col-sm-4">
10      <h2>Section 2</h2>
11      <p></p>
14    </section>
15    <section class="col-sm-4">
16      <h2>Section 3</h2>
17      <p></p>
20    </section>
21  </footer>
22 </main>
```

CSS

JS

Section 1

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor.

Section 2

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor.

Section 3

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Sed sit amet ipsum mauris. Maecenas congue ligula ac quam viverra nec consectetur ante hendrerit. Donec et mollis dolor.

Columns *must* go inside rows, & columns are the *only* allowed children of rows

Rows go inside containers, but other children are allowed inside containers

Containers *cannot* go *anywhere* inside other containers

Tools

Themes

Free

Start Bootstrap

Free Bootstrap Themes & Templates

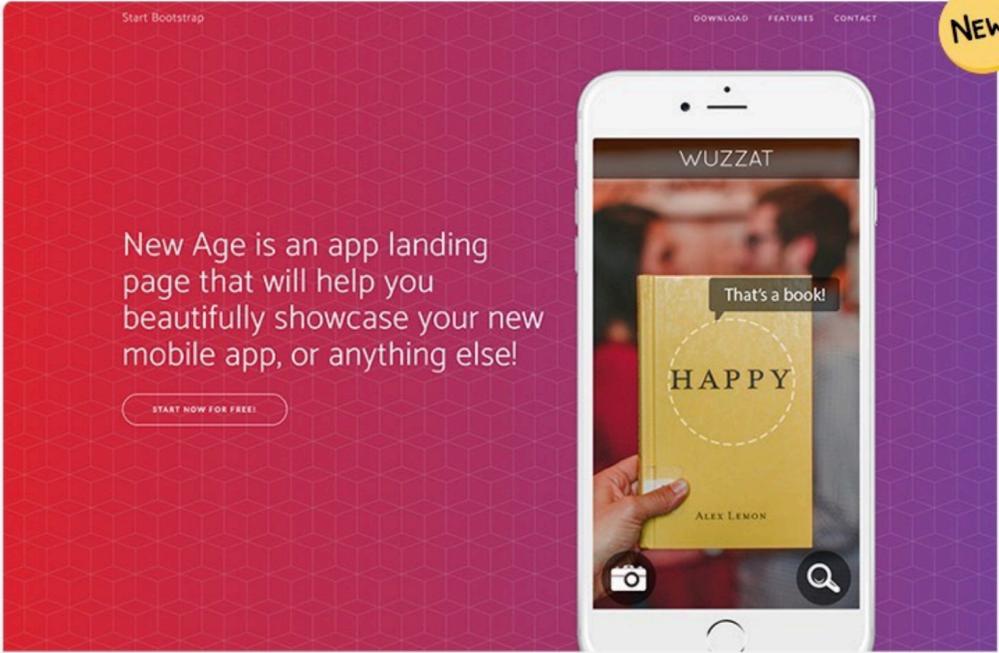
Created and Maintained by David Miller at Blackrock Digital

[🔗 Fork](#) [🌟 Star](#) **5,519**

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{wrap}bootstrap

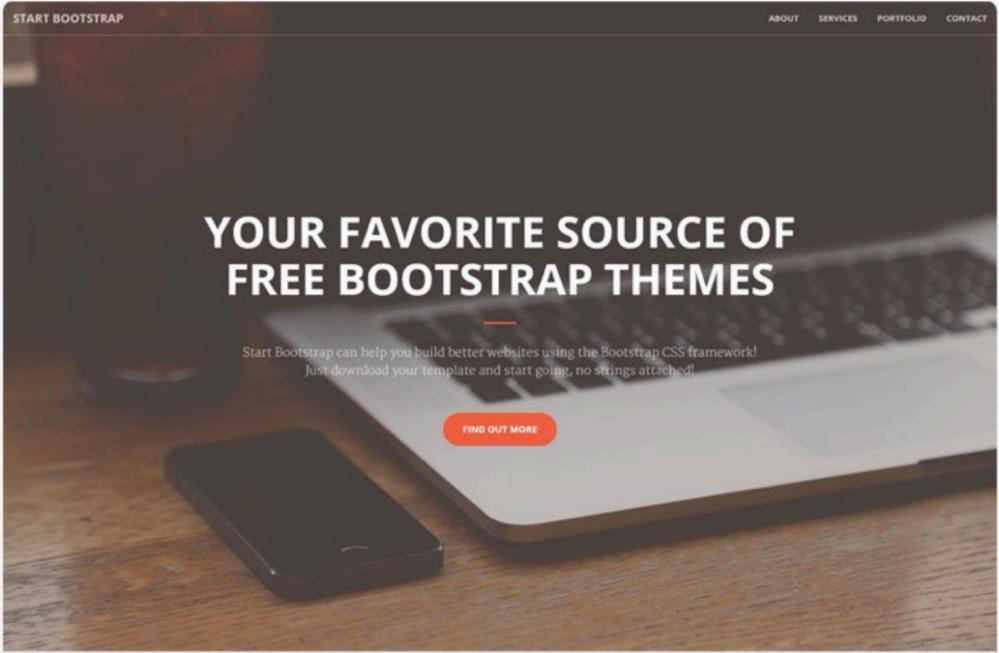
B



New Age

An app landing page theme.

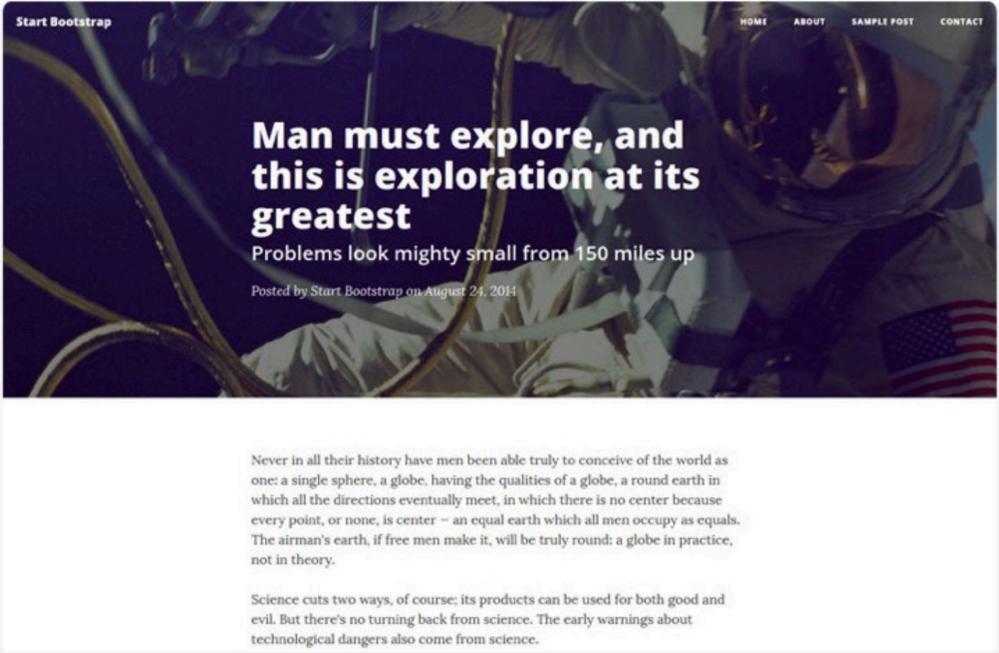
[PREVIEW & DOWNLOAD](#)



Creative

A one page creative theme.

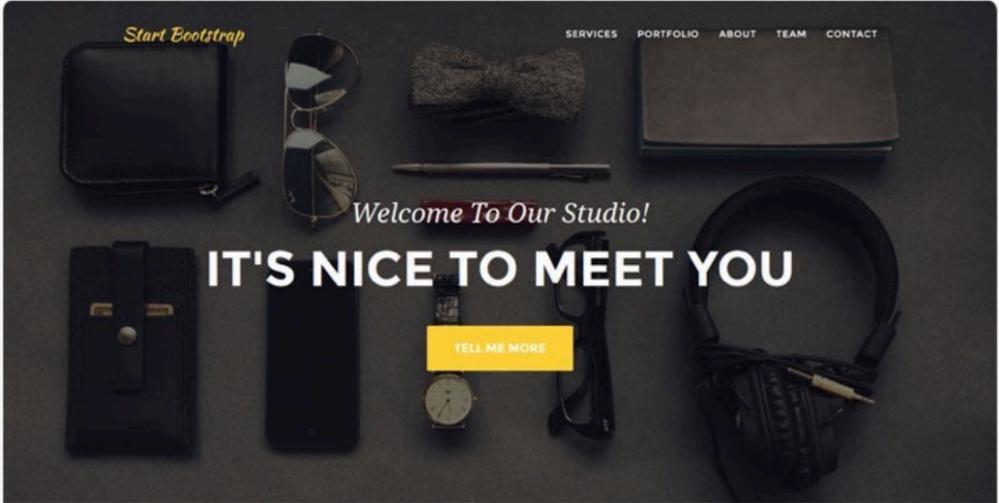
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Clean Blog

A clean blog theme.

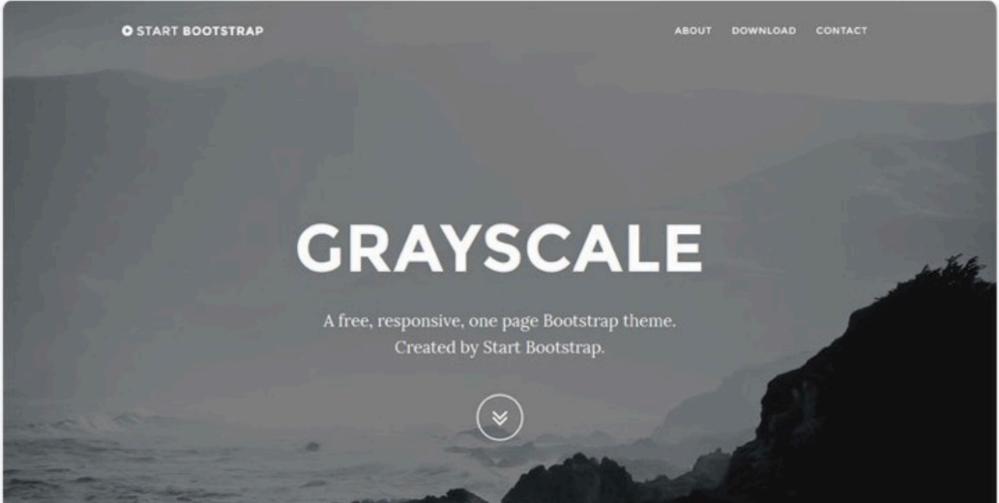
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SERVICES



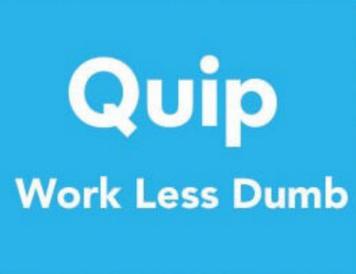
PORTFOLIO



GRAYSCALE

Agency

A clean, stylish, one page Bootstrap portfolio theme perfect for your agency or small business.

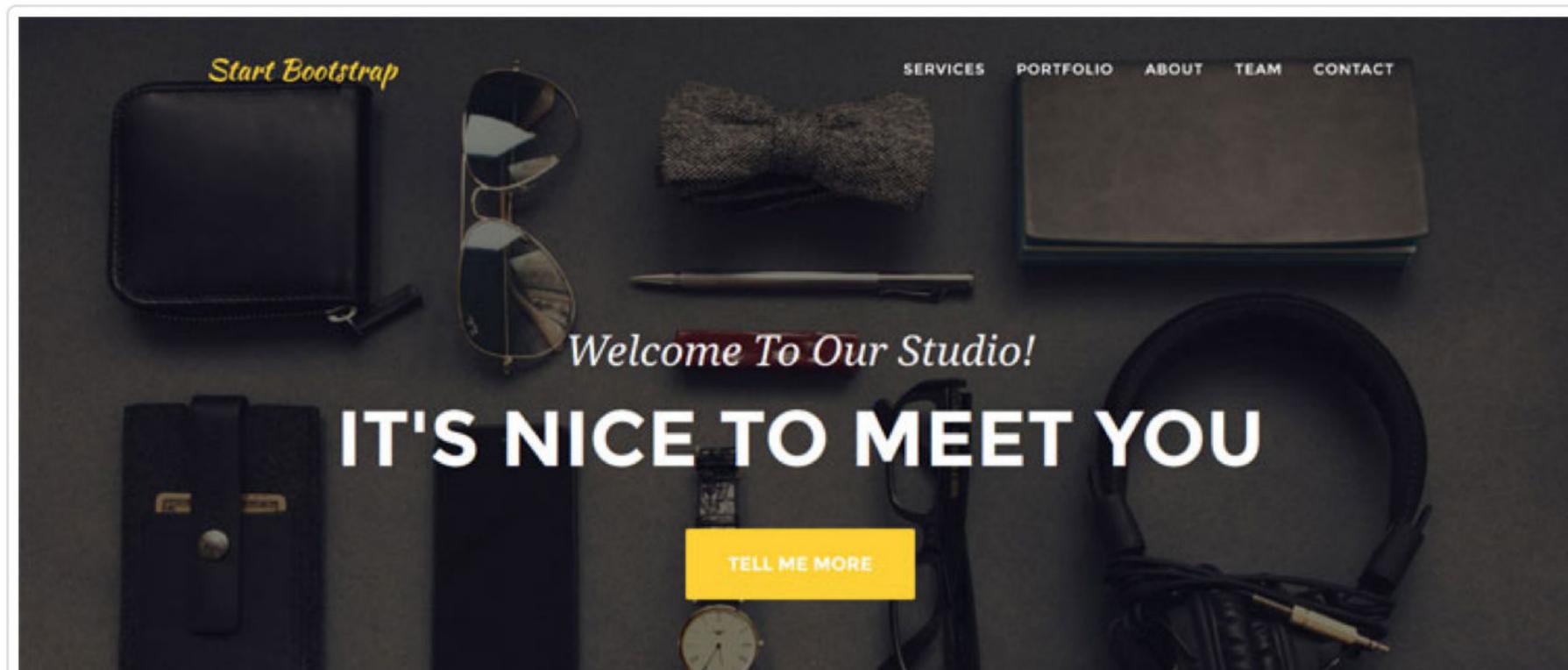


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Description:

Agency is a stylish, one page Bootstrap theme for agencies and small businesses. The design of Agency is based off of the Golden PSD Theme by [Mathavan Jaya](#). You can download the PSD version of this theme at [FreebiesXpress.com](#).

Commercial

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Followers



757
Subscribers

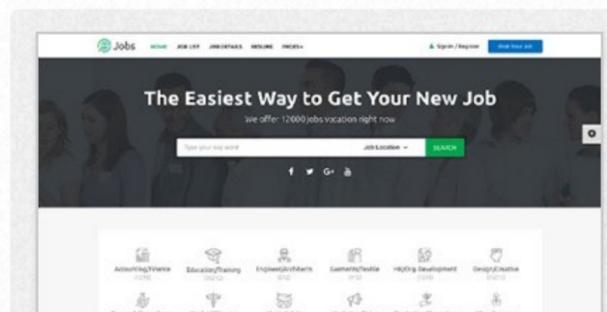
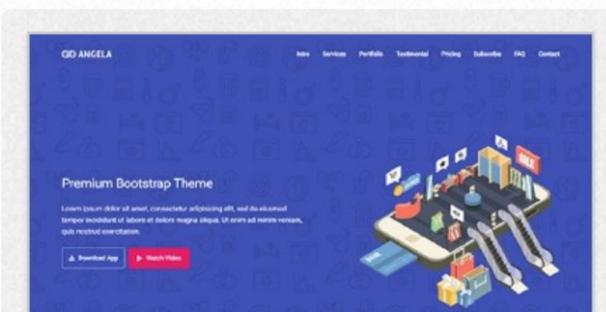


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Currently v4.0.0-beta.2



All the tools your team needs in one place

Official Themes from Bootstrap's creators

Customize and extend the world's most popular front-end framework.

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Dave Gamache

I wish i was a little bit taller, wish i was a baller, wish i had a girl... also.

Friends 12M Enemies 1

About · Edit

- Went to [Oh, Canada](#)
- Became friends with [Obama](#)
- Worked at [Github](#)
- Lives in [San Francisco, CA](#)
- From [Seattle, WA](#)

Photos · Edit



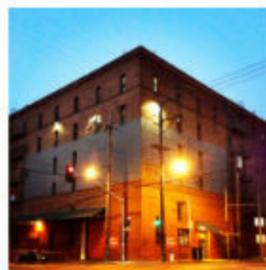
Message



Dave Gamache

4 min

Aenean lacinia bibendum nulla sed consectetur. Vestibulum id ligula porta felis euismod semper. Morbi leo risus, porta ac consectetur ac, vestibulum at eros. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Vestibulum id ligula porta felis euismod semper. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.



Jacon Thornton

Donec id elit non mi porta gravida at eget metus. Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Donec ullamcorper nulla non metus auctor fringilla. Praesent commodo cursus magna, vel scelerisque nisl consectetur et. Sed posuere consectetur est at lobortis.

Visit your profile! Check your self, you aren't looking too good.

Sponsored



It might be time to visit Iceland. Iceland is so chill, and everything looks cool here. Also, we heard the people are pretty nice. What are you waiting for?

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Jacob Thornton @fat

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Mark Otto @mdo

Follow

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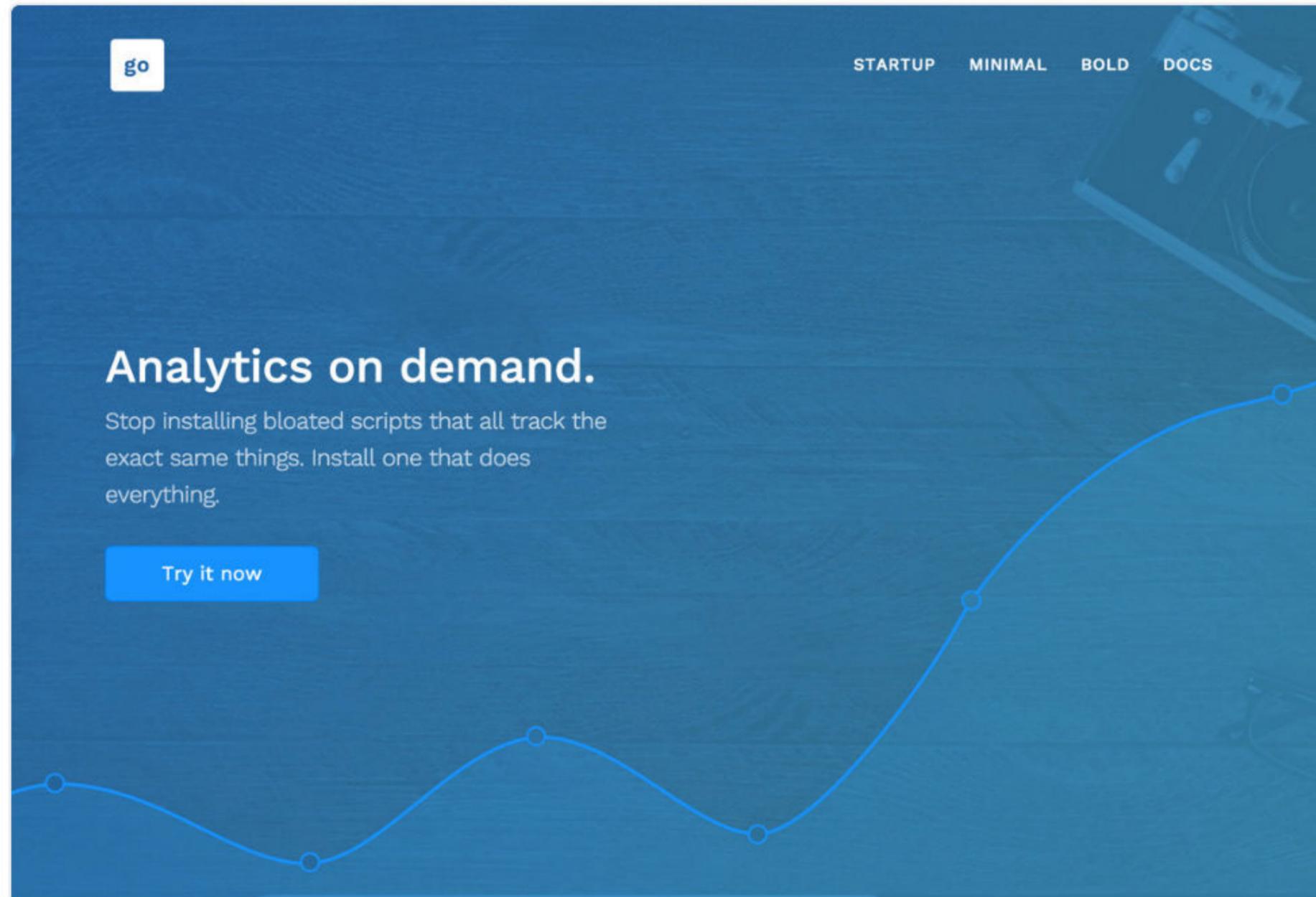
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STARTUP

MINIMAL

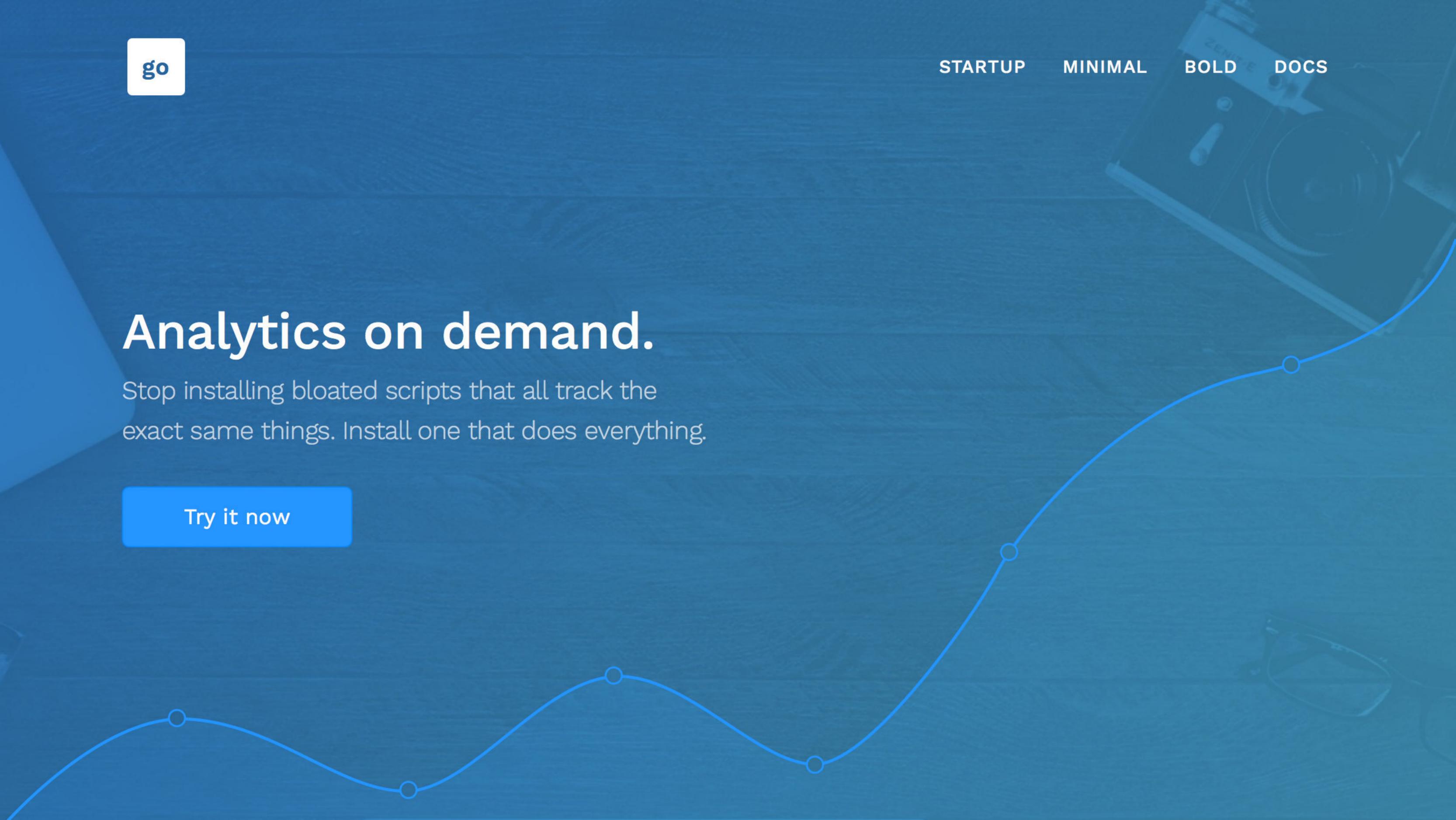
BOLD

DOCS

Analytics on demand.

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EASY DEVELOPMENT

Natural language queries make mining data easy for anyone.

Rather than force everyone at your company to learn incredibly difficult terminal commands, we allow anyone to query the data with natural language to return data.

[Read our docs](#)

```
1 goAnalytics "who are the latest 3 users?"
2
3 {
4   "Dave": {
5     "fullName": "Dave Gamache",
6     "twitterHandle": "@dhg",
7   }
8   "Mark": {
9     "fullName": "Mark Otto",
10    "twitterHandle": "@mdo",
11  }
12  "Jacob": {
13    "fullName": "Jacob Thornton",
14    "twitterHandle": "@fat",
15  }
16 }
```



HIGH PRAISE

“Go Analytics is amazing. Decisions that used to take weeks, now only takes minutes and is available to everyone on my team.”

Cindy Smith, founder of Cool Startup



HIGH PRAISE

“Go Analytics is amazing. Decisions that used to take weeks, now only takes minutes and is available to everyone on my team.”

Cindy Smith, founder of Cool Startup

TC TechCrunch

TNW
THE NEXT WEB

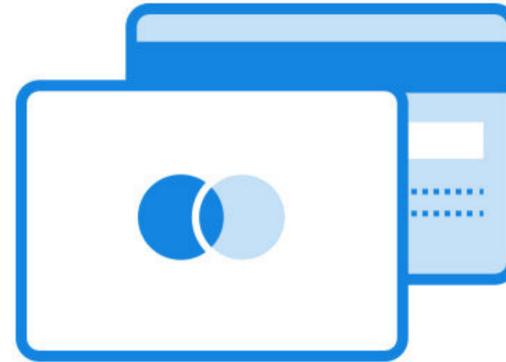
FASTCOMPANY

Mashable **<re/code>**

It's not hard to see how we make your life easier every day.



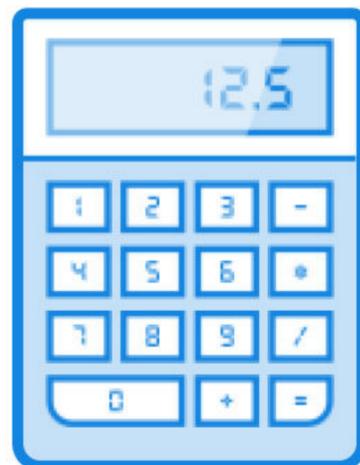
24/7 support. We're always here for you no matter what time of day.



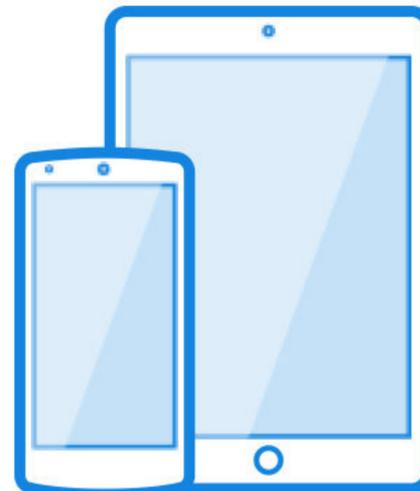
E-commerce. We automatically handle all sales analytics.



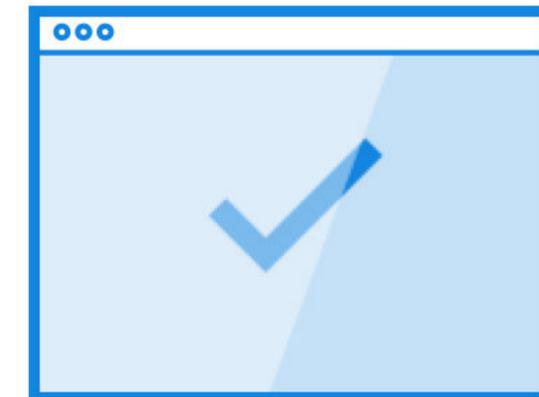
Turnaround. Our data analysis is distributed, so it processes in seconds.



Rich calculations. Limitless ways to



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No plans. We just bump your plan whenever you need it.

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Public API access

Start a personal account

24/7 technical supprt

Public API access

Start a business account

24/7 technical supprt

Public & Private API access

Start a corporate account

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Real time
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\$39 /mo billed monthly <i>or</i> \$35/mo billed annually	\$99 /mo billed monthly <i>or</i> \$89/mo billed annually	\$199 /mo billed monthly <i>or</i> \$179/mo billed annually	\$399 /mo billed monthly <i>or</i> \$359/mo billed annually	Large team? Contact sales for private setups, custom ToS & more
1 session	2 parallel users	4 parallel users	10 parallel users	10+ parallel users
Up to 2 users	Up to 6 users	Up to 12 users	Up to 25 users	25+ users



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Responsive Design Testing across Devices

Generate screenshots at actual device sizes on iOS, Android, OS X & Windows

[View](#)

[Enable Local Testing](#)

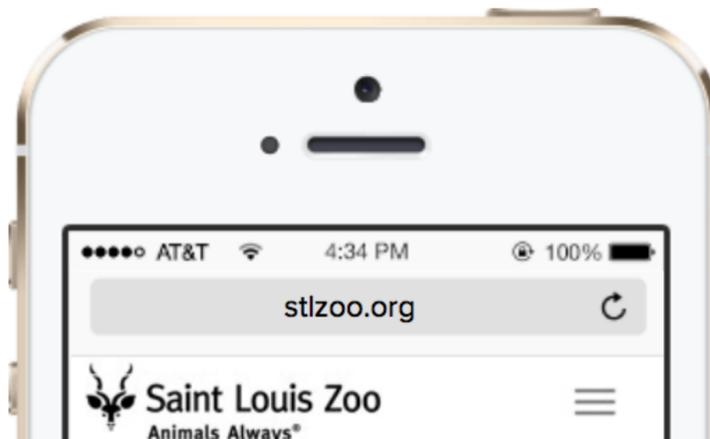
[Learn more about local testing](#)

- iPhone 5S
320x568
7.0
- Galaxy S5 Mini
360x640
4.4
- Galaxy S5
360x640
4.4
- Galaxy Note 3
360x640
4.3
- iPhone 6
375x667
8.3
- Google Nexus 4
384x640
4.2
- iPhone 6 Plus
414x736
8.3
- Kindle Fire HDX 7
600x960
4.3
- iPad Mini 2
768x1024
8.3
- iPad Air
768x1024
8.3

iPhone 5S Viewport: 320x568
Screen size: 4"

Portrait Landscape Live Interactive Testing

← Previous Next →





Note: [Set your monitor size](#) in the 'Monitor Size' settings (top right corner of the screen), to view devices at their actual size. ✕

Responsive Design Testing across Devices

Generate screenshots at actual device sizes on iOS, Android, OS X & Windows

View

[Enable Local Testing](#) ▾

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Galaxy Tab 4



800x1280



Windows



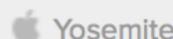
1280x1024



Mac OSX



1920x1080



iPhone 5S

Viewport: 320x568

Screen size: 4"

Portrait

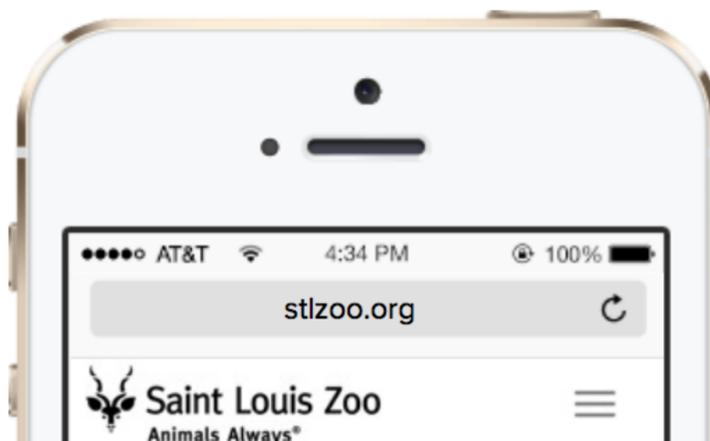
Landscape

Live Interactive Testing



← Previous

Next →





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15 browsers pre-selected



iOS

v8.3

iPad Mini 2
iPad Air

iPhone 6
iPhone 6 Plus

v7

iPhone 5S
iPad 4th

iPad Mini

v6

iPhone 4S
iPhone 5

iPad 3

v5.1

iPhone 4S
iPad 3

v5

iPad 2



Android

Samsung

Galaxy S5

Galaxy S4

Galaxy S3

Galaxy S2

Galaxy Tab 2

Galaxy S5 Mini

Galaxy Tab 4

Galaxy Note 3

Galaxy Note 2

Galaxy Note 10.1

Galaxy Note

Amazon

Kindle Fire 2

Kindle Fire HD 8.9

Kindle Fire HDX

Motorola

Razr

Droid Razr

Razr Maxx HD

Google

Nexus 9

Nexus 7

Nexus 6

Nexus 5

Nexus 4

Nexus

HTC

One M8

One X

Wildfire

Sony

Xperia Tipo



Windows 8.1

11



37 36 35 34 33 32 31 30
29 28 27 26 25 24 23
22 21 20 19 18 17 16



42 41 40 39 38 37 36
35 34 33 32 31 30 29
28 27 26 25 24 23
22



12.16 12.15 12.14
12.10 12



5.1*



Windows 8

10



37 36 35 34 33 32 31 30
29 28 27 26 25 24 23
22 21 20 19 18 17 16



42 41 40 39 38 37 36
35 34 33 32 31 30 29
28 27 26 25 24 23
22



12.16 12.15 12.14
12.10 12



5.1*



Windows 7

9 8



37 36 35 34 33 32 31 30



42 41 40 39 38 37 36



12.16 12.15 12.14



5.1*



 Android	 Mobile		 Tablet		
 Windows Phone	Samsung Galaxy S5 Latest 1080x1920 4.4 Galaxy S4 1080x1920 4.3 Galaxy S3 720x1280 4.1 Galaxy S2 480x800 2.3 Galaxy S 480x800 2.2 Galaxy Note 3 Latest 1080x1920 4.3 Galaxy Note 2 720x1280 4.1 Galaxy Note 800x1280 2.3 Galaxy S5 Mini 720x1280 4.4		Google Nexus 6 * Latest 1440x2560 5 Nexus 5 * 1080x1920 5 Nexus 4 768x1280 4.2 Nexus 720x1280 4		Amazon Kindle Fire HDX 7 * 1200x1920 4.3 Kindle Fire HD 8.9 * 1200x1920 4 Kindle Fire 2 * 600x1024 4
 iOS	Motorola Droid Razr 540x960 2.3 Razr 540x960 4 Razr Maxx HD 720x1280 4.1		HTC One M8 1080x1920 4.4 One X 720x1280 4 Wildfire 240x320 2.2 Hero 320x480 1.5		Google Nexus 9 * 1536x2048 5 Nexus 7 1280x800 4.1
 Windows 10			Sony Xperia X10 480x854 1.6 Xperia Tipo 320x480 4		Samsung Galaxy Tab 4 10.1 1280x800 4.4 Galaxy Note 10.1 800x1280 4 Galaxy Tab 2 10.1 1280x800 4
 Windows 8.1					
 Windows 8					
 Windows 7					
 Windows XP					
 OS X Yosemite					
 OS X Mavericks					
 OS X Mountain Lion					
 OS X Lion					
 OS X Snow Leopard					

* Local testing not available

	Mobile	Tablet
Android		
Windows Phone		
iOS	Apple iPhone 6 Plus Latest 8.3 iPhone 6 Latest 8.3 iPhone 5S 7 iPhone 5 6 iPhone 4S (6.0) 6 iPhone 4S 5.1 iPhone 4 4 iPhone 3GS 3	Apple iPad Air Latest 8.3 iPad Mini 2 Latest 8.3 iPad 4th 7 iPad Mini 7 iPad 3rd (6.0) 6 iPad 3rd 5.1 iPad 2 (5.0) 5 iPad 2 4.3.2 iPad 3.2
Windows 10		
Windows 8.1		
Windows 8		
Windows 7		
Windows XP		
OS X Yosemite		
OS X Mavericks		
OS X Mountain Lion		
OS X Lion		
OS X Snow Leopard		

	Safari	Firefox	Chrome	Opera	Yandex				
Android									
Windows Phone	8 Latest	40 Aurora	23	7	44 Dev	28	30 Dev	12.15	14.12 Latest
iOS		38 Latest	22	6	43 Latest	27	29 Latest	12.14	
Windows 10		37	21	5	42	26	28	12.12	
Windows 8.1		36	20	4	41	25	27		
Windows 8		35	19	3.6	40	24	26		
Windows 8		34	18		39	23	25		
Windows 7		33	17		38	22	24		
Windows 7		32	16		37	21	23		
Windows XP		31	15		36	20	22		
OS X Yosemite		30	14		35	19	21		
OS X Mavericks		29	13		34	18	20		
OS X Mountain Lion		28	12		33	17	19		
OS X Mountain Lion		27	11		32	16	18		
OS X Lion		26	10		31	14	17		
OS X Lion		25	9		30		16		
OS X Snow Leopard		24	8		29		15		

	 IE	 Firefox	 Chrome	 Opera	 Yandex	 Safari
 Android						
 Windows Phone	11 Latest	40 Aurora	43 Latest	30 Dev	14.12 Latest	5.1 Latest
 iOS		38 Latest	42	29 Latest		
 Windows 10		37	41	28		
 Windows 8.1		36	40	27		
 Windows 8		35	39	26		
 Windows 7		34	38	25		
 Windows XP		33	37	24		
 OS X Yosemite		32		23		
 OS X Mavericks						
 OS X Mountain Lion						
 OS X Lion						
 OS X Snow Leopard						

Thank you!

scott@granneman.com

www.granneman.com

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[@scottgranneman](https://www.instagram.com/scottgranneman)

jans@websanity.com

websanity.com

Bootstrap

A Quick Introduction

R. Scott Granneman & Jans Carton

© 2014 R. Scott Granneman
Last updated 2020-07-16

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Changelog

2020-07-16 2.8: Defined jQuery; small fixes; another way to install is via npm; added details about Bootstrap 4 & 5's breakpoints; integrated Bootstrap 4 better in places;

Changelog

2018-10-29 2.7: VSCode screenshots of Bootstrap 4 CDN; better explanation of adding your CSS after Bootstrap's; screenshots of Bootstrap 4 website & examples; replaced 3 section screenshots in *Columns*; re-ordered tables so largest is on top

2018-05-05 2.6: Added slide re: necessity for `<div class="col-xs-12">`; added slide contrasting breakpoints for 3 & 4

Changelog

2017-12-19 2.5: Updated theme; fixed formatting errors; made *Template* section clearer; made *Installation* section clearer; made *Minification* into a Side Note; updated *Installation* screenshots; made *Using* section clearer & moved it after *Template*; made *Grid System* clearer, with more examples; better screenshots of free themes; added WrapBootstrap to themes; added slides showing new home page & dropdown for versions 2, 3, & 4; *Installation* now covers manual install vs CDN

Changelog

2016-04-27 2.4: Changed instructions to move `<script>` to `<head>`; added minification explanation; Bootstrap-specific bookmarklet; more info re: Bootstrap themes; cleaned up small errors

2016-02-16 2.3: Added *Bootstrap 4* section

Changelog

2015-06-11 2.2: Fixed a bunch of errors in layout in *Grid System*; small fixes

2015-05-24 2.1: Completely re-ordered *Grid System* & added lots more detail, examples, & clarification; added *Tools* section with Viewport Resizer & BrowserStack

Changelog

2015-05-20 2.0: Updated image showing Bootstrap contents; showed contents after culling; added examples of Bootstrap documentation for classes; added recommendation to use browser Inspector; simplified explanation of `<meta>` for disabling zooming; explained why you should move JS into `<head>`; added better clarification of Grid System; showed how to override Bootstrap's CSS with your own; added more about `<head>`

Changelog

2015-01-14 1.1: Removed “inherit” & clarified relationship between Bootstrap’s CSS & yours

2014-05-18 1.0.1: Replaced image showing default Bootstrap files

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