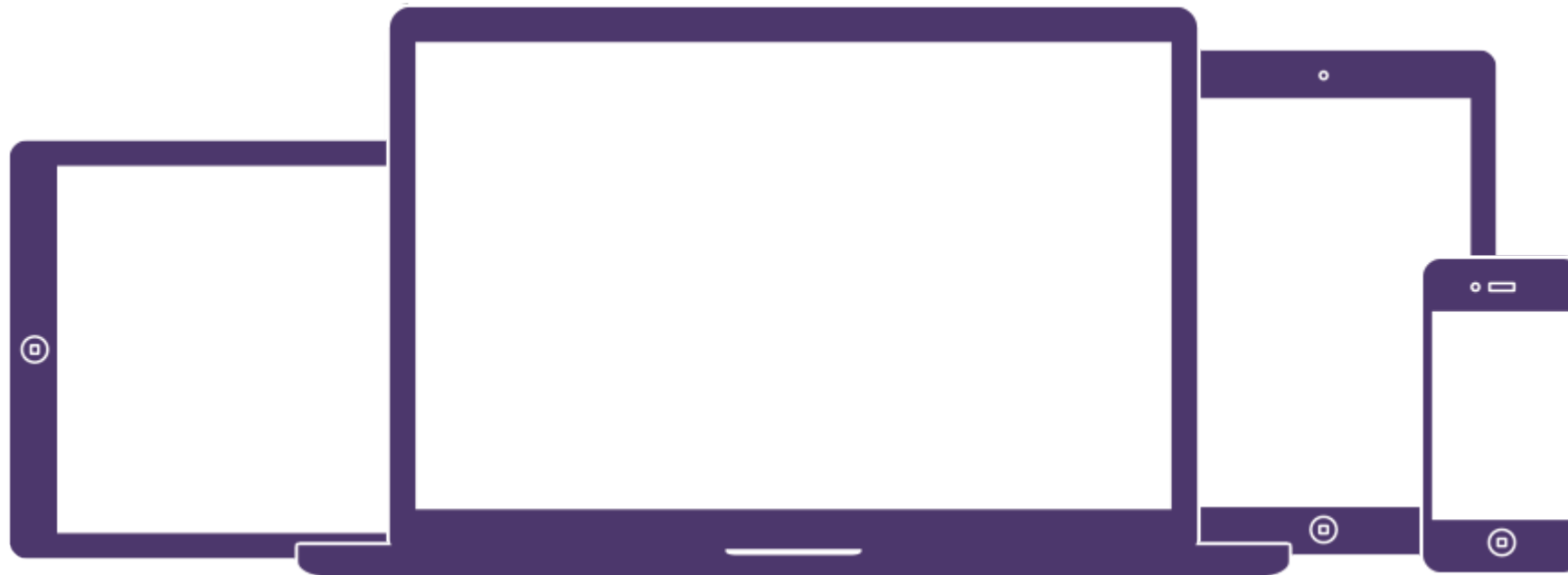


Bootstrap



One framework, every device

What is it?

- Bootstrap is a CSS and JavaScript UI framework
- Is designed to help you non-designer types to balance your layouts and designs
- Bootstrap easily and efficiently scales your websites and applications with a single code base
- Written by two of Twitter's senior developers to make sure they got a consistent look and feel across all of the projects they were creating for Twitter
 - In August 2010 released as an open source project on GitHub
 - Since February 2012, it has been the most starred GitHub development project

How to get?

- Download the latest stable version from <http://getbootstrap.com/getting-started/>, or
- Use **NuGet**, or
- Use a CDN:

Newest version is
v4.0.0-alpha.6

```
<!-- Latest compiled and minified CSS -->
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">

<!-- Optional theme -->
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap-theme.min.css">

<!-- Latest compiled and minified JavaScript -->
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js">
</script>
```


How to Use?

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

    <!-- HTML5 shim and Respond.js for 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/html5shiv/3.7.2/html5shiv.min.js"></script>
      <script src="https://oss.maxcdn.com/respond/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/1.11.1/jquery.min.js"></script>
    <!-- Include all compiled plugins (below), or include individual files as needed -->
    <script src="js/bootstrap.min.js"></script>
  </body>
</html>
```



The grid

```
<!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>Getting Started Bootstrap</title>
    <!-- Bootstrap core CSS -->
    <link href="bootstrap.min.css" rel="stylesheet">
  </head>
  <body>

    <div class="container">

      <div class="row">
        <div class="col-md-3">.col-md-3</div>
        <div class="col-md-6">.col-md-6</div>
        <div class="col-md-3">.col-md-3</div>
      </div>

    </div><!-- /.container -->

    <script src="jquery.min.js"></script>
    <script src="bootstrap.min.js"></script>
  </body>
</html>
```

The grid creates page layouts with a series of rows and columns that house the content

Blocks of content are created by specifying the **number of columns** you wish to span

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

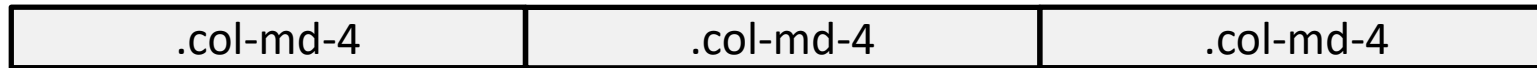
.col-md-3

.col-md-6

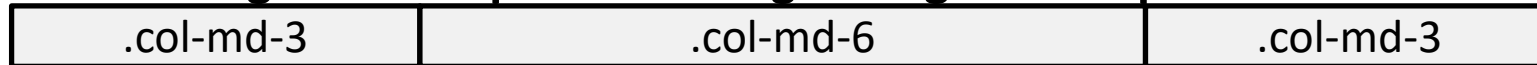
.col-md-3

The Grid System

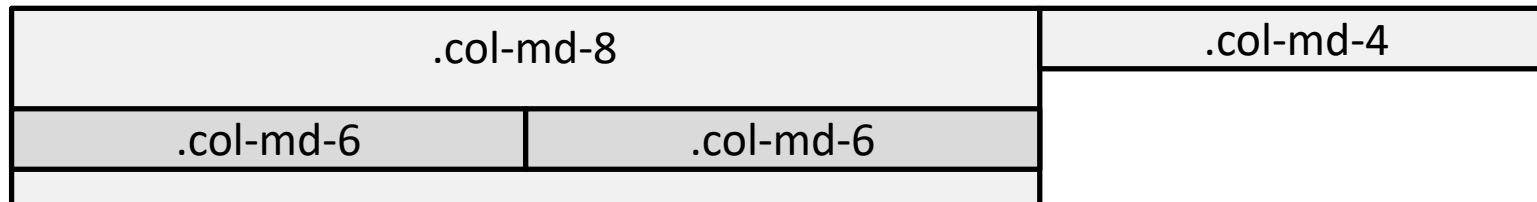
- Get three equal-width columns **starting at desktops and scaling to large desktops**
 - On mobile devices, tablets and below, the columns will automatically stack



- Get three columns **starting at desktops and scaling to large desktops** of various widths



- Two columns with two nested columns

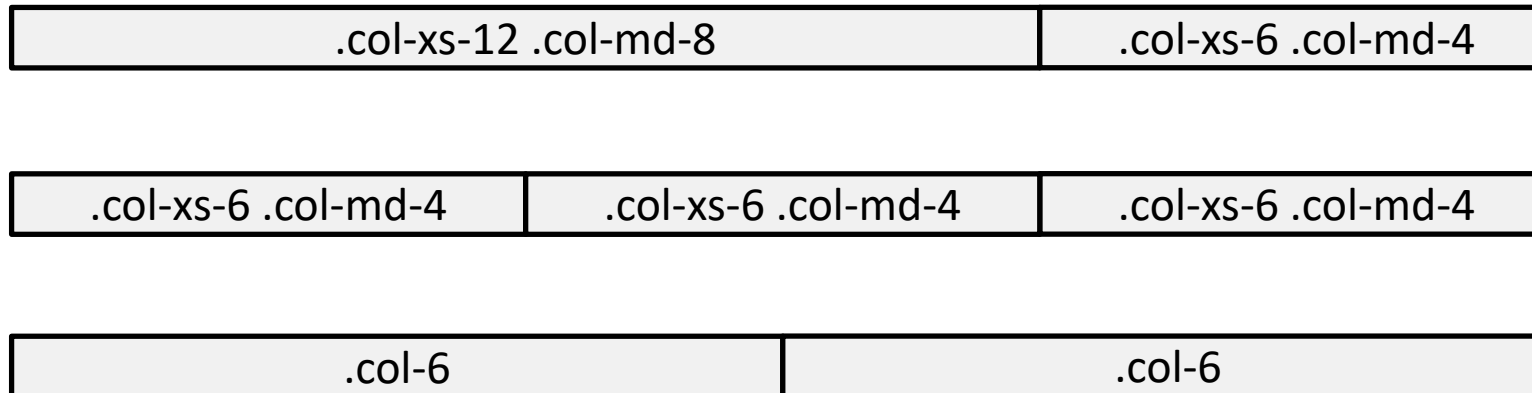


- **Grid columns should add up to twelve for a single horizontal block**

Five Tiers of Grids

In version 4
Earlier versions of Bootstrap
has only four tiers

- The Bootstrap grid system has five tiers of classes:
 - xs = extra small devices (portrait phones, less than 576px)
 - sm = small devices (landscape phones, 576px and up)
 - md = medium devices (tablets, 768px and up)
 - lg = large devices (desktops, 992px and up)
 - xl = extra large devices (large desktops, 1200px and up)
- Mixed: mobile, tablet, and desktop



.col-6 means .col-xs-6

Fonts

- To get modern, beautiful fonts with zero latency Bootstrap v4 uses system UI fonts
- This font-family is applied to the <body> and automatically inherited globally throughout Bootstrap
- The fallback is "Helvetica Neue", Arial, sans-serif !default;

The quick brown fox jumps over the lazy dog.

Fira Sans Firefox OS

The quick brown fox jumps over the lazy dog.

Roboto Android and Chrome OS

The quick brown fox jumps over the lazy dog.

San Francisco iOS and Mac OS

The quick brown fox jumps over the lazy dog.

Segoe UI Windows and Windows Phone

<https://www.smashingmagazine.com/2015/11/using-system-ui-fonts-practical-guide/>

Headings

Version 3

Version 4

EXAMPLE

h1. Bootstrap heading

Semibold 36px

Semibold 2.5rem (40px)

h2. Bootstrap heading

Semibold 30px

Semibold 2rem (32px)

h3. Bootstrap heading

Semibold 24px

Semibold 1.75rem (28px)

h4. Bootstrap heading

Semibold 18px

Semibold 1.5rem (24px)

h5. Bootstrap heading

Semibold 14px

Semibold 1.25rem (20px)

h6. Bootstrap heading

Semibold 12px

Semibold 1rem (16px)

Styles for headings 1 through 6

Responsive utilities in version 3

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

Icons

- Bootstrap v3 included Glyphicons
- In Bootstrap v4 you must include icons your self e.g. Font Awesome
- Search icons here: <https://glyphsearch.com/?library=glyphicons>

References & Links

- <http://getbootstrap.com/>
- W3schools
<http://www.w3schools.com/bootstrap/default.asp>
- Alternatives to Bootstrap
 - Material Design Lite
<https://getmdl.io/index.html>
 - Flexbox
<https://scotch.io/tutorials/a-visual-guide-to-css3-flexbox-properties>
<https://css-tricks.com/snippets/css/a-guide-to-flexbox/>
 - Foundation
<http://foundation.zurb.com/>
 - ?



Hov-to Guide & Free templates

- Over a dozen reusable components with code examples to copy-paste ...
<http://getbootstrap.com/components/>
- Bootswatch - **Free themes for Bootstrap**
<http://bootswatch.com/>