Bootstrap 3 Tutorial

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Bootstrap

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

What is Responsive Web Design?

Responsive web design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.

Bootstrap History

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

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

Why Use Bootstrap?

Advantages of Bootstrap:

- **Easy to use:** Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
- **Responsive features:** Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
- **Mobile-first approach:** In Bootstrap 3, mobile-first styles are part of the core framework
- **Browser compatibility:** Bootstrap is compatible with all modern browsers (Chrome, Firefox, Internet Explorer, Safari, and Opera)

Where to Get Bootstrap?

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

You can:

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

Downloading Bootstrap

If you want to download and host Bootstrap yourself, go to getbootstrap.com, and follow the instructions there.

Bootstrap CDN

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

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

```
<!-- Latest compiled and minified CSS -->
<link rel="stylesheet"href="http://maxcdn.bootstrapcdn.com/bootstrap/3.2.0/css/bootstrap.min.css">


<!-- jQuery library -->
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.1/jquery.min.js"></script>


<!-- Latest compiled JavaScript -->
<script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.2.0/js/bootstrap.min.js"></script>
```

<u>**Tips:**</u>

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

<u>Create First Web Page With Bootstrap</u>

1. Add the HTML5 doctype

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

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

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

2. Bootstrap 3 is mobile-first

Bootstrap 3 is designed to be responsive to mobile devices. Mobile-first styles are part of the core framework.

To ensure proper rendering and touch zooming, add the following <meta> tag inside the <head> element:

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

The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).

The initial-scale=1 part sets the initial zoom level when the page is first loaded by the browser.

3. Containers

Bootstrap also requires a containing element to wrap site contents. There are two container classes to choose from:

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

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

Two Basic Bootstrap Pages

The following example shows the code for a basic Bootstrap page (with a responsive fixed width container):

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"href="http://maxcdn.bootstrapcdn.com/bootstrap/3.2.0/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.1/jquery.min.js"></script>
  <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.2.0/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h1>My First Bootstrap Page</h1>
  <p>This is some text.</p>
</div>

</body>
</html>
```

The following example shows the code for a basic Bootstrap page (with a full width container):

```
<!DOCTYPE html>
<html lang="en">
<head>
 <title>Bootstrap Example</title>
 <meta charset="utf-8">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 <link rel="stylesheet"href="http://maxcdn.bootstrapcdn.com/bootstrap/3.2.0/css/bootstrap.min.css">
 <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.1/jquery.min.js"></script>
 <script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.2.0/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container-fluid">
 <h1>My First Bootstrap Page</h1>
 <p>This is some text.</p>
</div>
</body>
</html>
</div>
```

Bootstrap Grid System

Bootstrap's grid system allows up to 12 columns across the page.

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

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

Bootstrap's grid system is responsive, and the columns will re-arrange automatically depending on the screen size.

Grid Classes

The Bootstrap grid system has four classes:

- **xs** (for phones)
- **sm** (for tablets)
- **md** (for desktops)
- **lg** (for larger desktops)

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

Three Equal Columns

The following example shows how to get a three equal-width columns starting at tablets and scaling to large desktops. On mobile phones, the columns will automatically stack:

```
<!DOCTYPE html>

<html>

<head>

    <meta charset="utf-8">

    <link rel="stylesheet" type="text/css" href="css/style1.css">

    <link rel="stylesheet" type="text/css" href="css/style2.css">

    <script src="js/jquery.js"></script>

    <script src="js/script.js"></script>

  </head>

<body>

<div class="container-fluid">

  <h1>Hello World!</h1>

  <p>Resize the browser window to see the effect.</p>

  <div class="row">

    <div class="col-sm-4" style="background-color:lavender;">.col-sm-4</div>

    <div class="col-sm-4" style="background-color:lavenderblush;">.col-sm-4</div>

    <div class="col-sm-4" style="background-color:lavender;">.col-sm-4</div>

  </div>

</div>

</body>

</html>
```
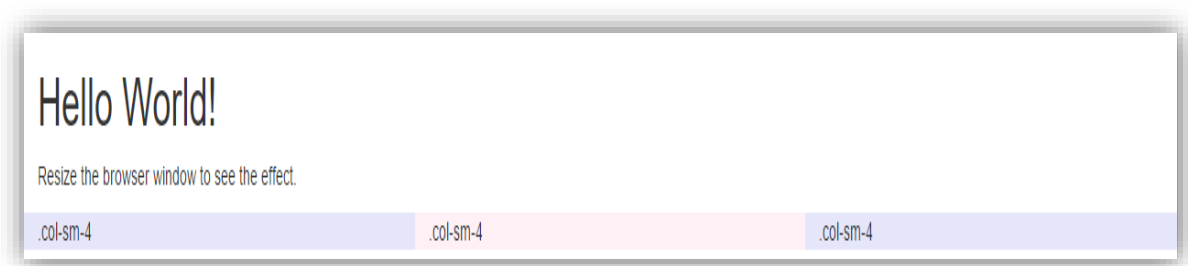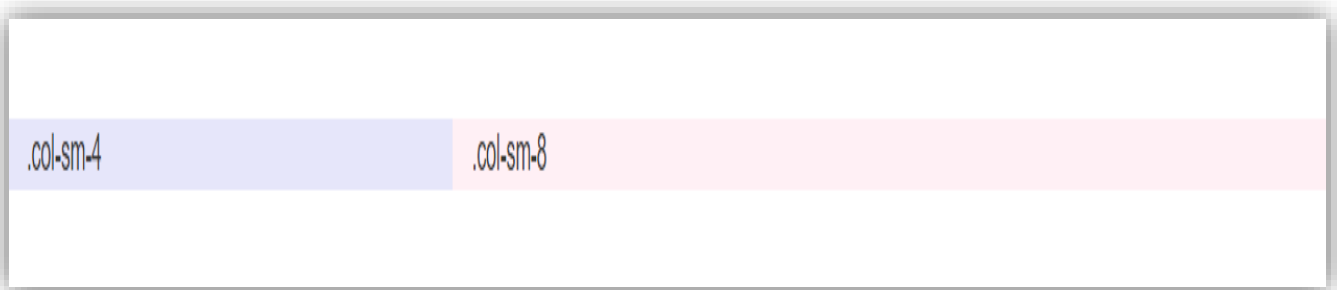
Two Unequal Columns

```
<div class="row">

<div class="col-sm-4" style="background-color:lavender;">.col-sm-4</div>

<div    class="col-sm-8"    style="background-color:lavenderblush;">.col-sm-
8</div>
```



```
</div>
```

Bootstrap Text/Typography

Bootstrap's Default Settings:

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

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

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

Bootstrap vs. Browser Defaults

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

\<h1\> - \<h6\>

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

\<!DOCTYPE html\>

\<html\>

\<head\>

    \<meta charset="utf-8"\>

    \<link rel="stylesheet" type="text/css" href="css/style1.css"\>

    \<link rel="stylesheet" type="text/css" href="css/style2.css"\>

    \<script src="js/jquery.js"\>\</script\>

    \<script src="js/script.js"\>\</script\>

 \</head\>

\<body\>

\<div class="container-fluid"\>

```html
<h1>h1 Bootstrap heading (36px)</h1>

<h2>h2 Bootstrap heading (30px)</h2>

<h3>h3 Bootstrap heading (24px)</h3>

<h4>h4 Bootstrap heading (18px)</h4>

<h5>h5 Bootstrap heading (14px)</h5>

<h6>h6Bootstrap heading (12px)</h6>

</div>

</body>

</html>
```

h1 Bootstrap heading (36px)

h2 Bootstrap heading (30px)

h3 Bootstrap heading (24px)

h4 Bootstrap heading (18px)

h5 Bootstrap heading (14px)

h6 Bootstrap heading (12px)

<small>

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

<div class="container">

  <h1>Lighter, Secondary Text</h1>

  <p>The small element is used to create a lighter, secondary text in any heading:</p>

  <h1>h1 heading **<small>secondary text</small>** </h1>

  <h2>h2 heading **<small>secondary text</small>** </h2>

  <h3>h3 heading **<small>secondary text</small>** </h3>

  <h4>h4 heading **<small>secondary text</small>** </h4>

  <h5>h5 heading **<small>secondary text</small>** </h5>

  <h6>h6 heading **<small>secondary text</small>** </h6>

</div>

<mark>

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

<div class="container">

  <h1>Highlight Text</h1>

  <p>Use the mark element to **<mark>highlight</mark>** text.</p>

</div>

Highlight Text

Use the mark element to highlight text.

<abbr>

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

 <div class="container">

<h1>Abbreviations</h1>

  <p>The abbr element is used to mark up an abbreviation or acronym:</p>

  <p>The **<abbr title="World Health Organization">WHO</abbr>** was founded in 1948.</p>

</div>

Abbreviations

The abbr element is used to mark up an abbreviation or acronym:

The WHO was founded in 1948.

           World Health Organization

<blockquote>

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

<div class="container">

<h1>Blockquotes</h1>

<p>The blockquote element is used to present content from another source:</p>

<blockquote>

   <p>For 50 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by 1.2 million members in the United States and close to 5 million globally.</p>

   <footer>From WWF's website</footer>

</blockquote>

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

<div class="container">

<h1>Blockquotes</h1>

<p>To show the quote on the right use the class .pull-right:</p>

<blockquote **class="blockquote-reverse"**>

   <p>For 50 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by 1.2 million members in the United States and close to 5 million globally.</p>

<footer>From WWF's website</footer>

  </blockquote>

</div>

<kbd>

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

<div class="container">

  <h1>Keyboard Inputs</h1>

  <p>To indicate input that is typically entered via the keyboard, use the kbd element:</p>

  <p>Use <kbd>ctrl + p</kbd> to open the Print dialog box.</p>

</div>

<pre>

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

<div class="container">

<h1>Multiple Code Lines</h1>

<p>For multiple lines of code, use the pre element:</p>

\<pre\>

Text in a pre element

is displayed in a fixed-width

font, and it preserves

both   spaces and

line breaks. **\</pre\>**

\</div\>

Multiple Code Lines

For multiple lines of code, use the pre element:

```
Text in a pre element
is displayed in a fixed-width
font, and it preserves
both      spaces and
line breaks.
```

Contextual Colors and Backgrounds

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

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

\<div class="container"\>

  \<h2\>Contextual Colors\</h2\>

  \<p\>Use the contextual classes to provide "meaning through colors":\</p\>

  \<p **class="text-muted"**\>This text is muted.\</p\>

  \<p **class="text-primary"**\>This text is important.\</p\>

  \<p **class="text-success"**\>This text indicates success.\</p\>

  \<p **class="text-info"**\>This text represents some information.\</p\>

  \<p **class="text-warning"**\>This text represents a warning.\</p\>

```
<p class="text-danger">This text represents danger.</p>
```

</div>

Contextual Colors

Use the contextual classes to provide "meaning through colors":

This text is muted.

This text is important.

This text indicates success.

This text represents some information.

This text represents a warning.

This text represents danger.

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

```
<div class="container">

<h2>Contextual Backgrounds</h2>

<p>Use the contextual background classes to provide "meaning through colors":</p>

<p class="bg-primary">This text is important.</p>

<p class="bg-success">This text indicates success.</p>

<p class="bg-info">This text represents some information.</p>

<p class="bg-warning">This text represents a warning.</p>

<p class="bg-danger">This text represents danger.</p>
```

</div>

More Typography Classes

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

Class	Description
.lead	Makes a paragraph stand out
.small	Indicates smaller text (set to 85% of the size of the parent)
.text-left	Indicates left-aligned text
.text-center	Indicates center-aligned text

.text-right	Indicates right-aligned text
.text-justify	Indicates justified text
.text-nowrap	Indicates no wrap text
.text-lowercase	Indicates lowercased text
.text-uppercase	Indicates uppercased text
.text-capitalize	Indicates capitalized text
.initialism	Displays the text inside an <abbr> element in a slightly smaller font size
.list-unstyled	Removes the default list-style and left margin on list items (works on both and). This class only applies to immediate children list items (to remove the default list-style from any nested lists, apply this class to any nested lists as well)
.list-inline	Places all list items on a single line
.dl-horizontal	Lines up the terms (<dt>) and descriptions (<dd>) in <dl>elements side-by-side. Starts off like default <dl>s, but when the browser window expands, it will line up side-by-side
.pre-scrollable	Makes a <pre> element scrollable

Text-lowercase, Text-uppercase, Text-capitalize

<div class="container">

  <h2>Typography</h2>

  <p **class="text-lowercase">**Lowercased text.</p>

  <p **class="text-uppercase">**Uppercased text.</p>

  <p **class="text-capitalize">**Capitalized text.</p>

</div>

Bootstrap Tables

Bootstrap Basic Table

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

The .table class adds basic styling to a table:

<div class="container">

 <h2>Basic Table</h2>

 <p>The .table class adds basic styling (light padding and only horizontal dividers) to a table:</p>

 <table **class="table">**

  <thead>

   <tr>

     <th>Firstname</th>

     <th>Lastname</th>

     <th>Email</th>

   </tr>

  </thead>

  <tbody>

   <tr>

     <td>John</td>

     <td>Doe</td>

     <td>john@example.com</td>

   </tr>

   <tr>

     <td>Mary</td>

     <td>Moe</td>

     <td>mary@example.com</td>

   </tr>

   <tr>

```
        <td>July</td>

        <td>Dooley</td>

        <td>july@example.com</td>

      </tr>

    </tbody>


</table>

</div>
```

Basic Table

The .table class adds basic styling (light padding and only horizontal dividers) to a table:

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

Striped Rows

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

```
<div class="container">

  <h2>Striped Rows</h2>

  <p>The .table-striped class adds zebra-stripes to a table:</p>

  <table class="table table-striped">

    <thead>

      <tr>

        <th>Firstname</th>

        <th>Lastname</th>

        <th>Email</th>

      </tr>
```

```
        </thead>

      <tbody>

        <tr>

          <td>John</td>

          <td>Doe</td>

          <td>john@example.com</td>

        </tr>

        <tr>

          <td>Mary</td>

          <td>Moe</td>

          <td>mary@example.com</td>

        </tr>

        <tr>

          <td>July</td>

          <td>Dooley</td>

          <td>july@example.com</td>

        </tr>

      </tbody>

    </table>

  </div>
```

Striped Rows

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

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

Bordered Table

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

<div class="container">

  <h2>Bordered Table</h2>

  <p>The .table-bordered class adds borders to a table:</p>

  <table **class="table table-bordered">**

   <thead>

    <tr>

     <th>Firstname</th>

     <th>Lastname</th>

     <th>Email</th>

    </tr>

   </thead>

   <tbody>

    <tr>

     <td>John</td>

     <td>Doe</td>

     <td>john@example.com</td>

    </tr>

    <tr>

     <td>Mary</td>

     <td>Moe</td>

     <td>mary@example.com</td>

    </tr>

    <tr>

     <td>July</td>

<td>Dooley</td>

        <td>july@example.com</td>

      </tr>

    </tbody>

  </table>

</div>

Bordered Table

The .table-bordered class adds borders to a table:

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

Hover Rows

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

<table class="table table-hover">

Condensed Table

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

<div class="container">

  <h2>Condensed Table</h2>

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

  <table class="table table-condensed">

    <thead>

      <tr>

        <th>Firstname</th>

```
      <th>Lastname</th>

      <th>Email</th>

    </tr>

  </thead>

  <tbody>

   <tr>

    <td>John</td>

    <td>Doe</td>

    <td>john@example.com</td>

   </tr>

   <tr>

    <td>Mary</td>

    <td>Moe</td>

    <td>mary@example.com</td>

   </tr>

   <tr>

    <td>July</td>

    <td>Dooley</td>

    <td>july@example.com</td>

   </tr>

  </tbody>

 </table>

</div>
```

Condensed Table

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

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

Contextual Classes

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

<div class="container">

 <h2>Contextual Classes</h2>

 <p>Contextual classes can be used to color table rows or table cells. The classes that can be used are: .active, .success, .info, .warning, and .danger.</p>

 <table class="table">

  <thead>

   <tr>

    <th>Firstname</th>

    <th>Lastname</th>

    <th>Email</th>

   </tr>

  </thead>

  <tbody>

   <tr class="success">

    <td>John</td>

    <td>Doe</td>

    <td>john@example.com</td>

   </tr>

   <tr class="danger">

    <td>Mary</td>

    <td>Moe</td>

    <td>mary@example.com</td>

   </tr>

   <tr class="info">

    <td>July</td>

```
      <td>Dooley</td>

      <td>july@example.com</td>

    </tr>

   </tbody>

  </table>

</div>
```

Contextual Classes

Contextual classes can be used to color table rows or table cells. The classes that can be used are: .active, .success, .info, .warning, and .danger.

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

The contextual classes that can be used are:

Class	Description
.active	Applies the hover color to the table row or table cell
.success	Indicates a successful or positive action
.info	Indicates a neutral informative change or action
.warning	Indicates a warning that might need attention
.danger	Indicates a dangerous or potentially negative action

Responsive Tables

The .table-responsive class creates a responsive table. The table will then scroll horizontally on small devices (under 768px). When viewing on anything larger than 768px wide, there is no difference:

<div class="table-responsive">

Bootstrap Images

<div class="container">

<img src="5.jpg" width="300px" **class="img-rounded"** title="img-rounded">

<img src="5.jpg" width="300px" **class="img-circle"** title="img-circle">

<img src="5.jpg" width="300px" **class="img-thumbnail"** title="img-thumbnail">

<img src="5.jpg" width="300px" **class="img-responsive"** title="img-responsive">

</div>

Bootstrap Jumbotron and Page Header

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

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

Tip: Inside a jumbotron you can put nearly any valid HTML, including other Bootstrap elements/classes.

Use a <div> element with class .jumbotron to create a jumbotron:

Jumbotron Inside Container

Place the jumbotron inside the <div class="container"> if you want the jumbotron to NOT extend to the edge of the screen:

<div class="container">

  <div class="jumbotron">

   <h1>Bootstrap Tutorial</h1>

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

  </div>

  <p>This is some text.</p>

  <p>This is another text.</p>

</div>

Bootstrap Tutorial

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

This is some text.
This is another text.

Jumbotron Outside Container

Place the jumbotron outside the <div class="container"> if you want the jumbotron to extend to the screen edges:

<div **class="jumbotron">**

  <h1>Bootstrap Tutorial</h1>

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

</div>

<div **class="container">**

  <p>This is some text.</p>

  <p>This is another text.</p>

</div>

Bootstrap Tutorial

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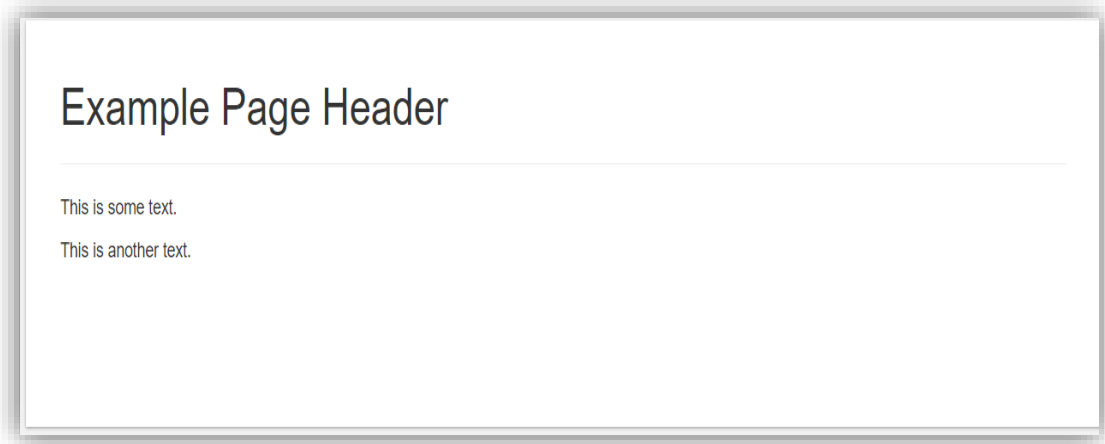
    This is some text.
    This is another text.

Creating a Page Header

A page header is like a section divider.

The .page-header class adds a horizontal line under the heading (+ adds some extra space around the element):

```
<div class="container">

  <div class="page-header">

    <h1>Example Page Header</h1>

  </div>

  <p>This is some text.</p>

  <p>This is another text.</p>

</div>
```
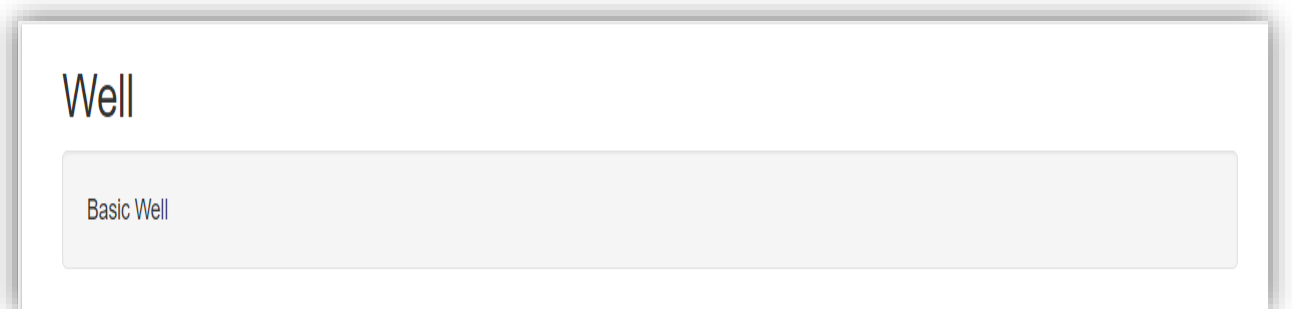

Bootstrap Wells

Wells

The .well class adds a rounded border around an element with a gray background color and some padding:

```
<div class="container">

  <h2>Well</h2>

  <div class="well">Basic Well</div>

</div>
```

Change the size of the well by adding the .well-sm class for small wells or .well-lg class for large wells:

<div class="container">

  <h2>Well Size</h2>

  <div **class="well well-sm">**Small Well</div>

  <div **class="well">**Normal Well</div>

  <div **class="well well-lg">**Large Well</div>

</div>

Well Size

Small Well

Normal Well

Large Well