

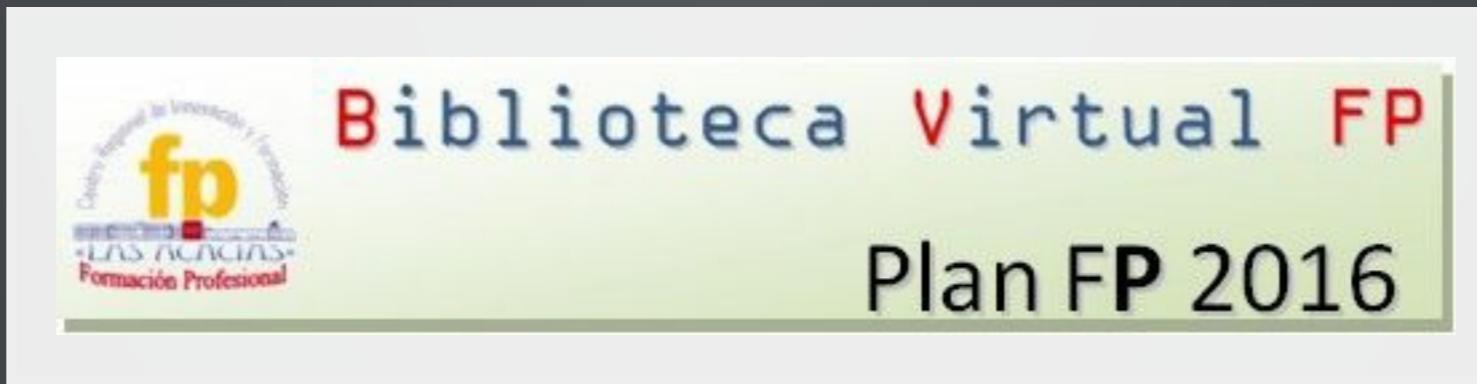
# BOOTSTRAP, UN FRAMEWORK CSS

ADOLFO SANZ DE DIEGO

SEPTIEMBRE 2016

# 0.1 BIBLIOTECA VIRTUAL FP 2016

- Código del curso: IFC06CM16
- Nombre del curso: Diseño de interfaces Responsive Web Design usables y accesibles con Saas y Bootstrap
- Autor del curso: Adolfo Sanz De Diego



Logo Biblioteca Virtual FP 2016

# 1 EL AUTOR

## 1.1 ADOLFO SANZ DE DIEGO

- Empecé desarrollando aplicaciones web, hasta que di el salto a la docencia.
- Actualmente soy **Asesor Técnico Docente** en el servicio TIC de la D.G de Infraestructuras y Servicios de la Consejería de Educación, Juventud y Deporte de la Comunidad de Madrid.
- Además colaboro como **formador especializado en tecnologías de desarrollo**.

## 1.2 ALGUNOS PROYECTOS

- **Hackathon Lovers** <http://hackathonlovers.com>: un grupo creado para emprendedores y desarrolladores amantes de los hackathones.
- **Password Manager Generator** <http://pasmangen.github.io>: un gestor de contraseñas online.
- **MarkdownSlides**  
<https://github.com/asanzdiego/markdownslides>: un script para crear slides a partir de ficheros MD.

# 1.3 ¿DONDE ENCONTRARME?

- Mi nick: **asanzdiego**
  - AboutMe: <http://about.me/asanzdiego>
  - GitHub: <http://github.com/asanzdiego>
  - Twitter: <http://twitter.com/asanzdiego>
  - Blog: <http://asanzdiego.blogspot.com.es>
  - LinkedIn: <http://www.linkedin.com/in/asanzdiego>
  - Google+: <http://plus.google.com/+AdolfoSanzDeDiego>

# 2 INTRODUCCIÓN

## 2.1 ¿QUÉ ES?

- Bootstrap es un **framework CSS**, liberado por Twitter y muy popular hoy en día.
- Está pensado para hacer un desarrollo **Mobile First**
- Implementa un **sistema de rejillas**, que por defecto incluye 12 columnas.

## 2.2 VENTAJAS

- Utiliza LESS, y en la última versión SASS.
- Hay una enorme comunidad detrás.
- Herramienta sencilla y ágil para construir sitios web e interfaces.
- Tiene un theme por defecto bastante optimizado y que puedes modificar fácilmente.

## 2.3 DESVENTAJAS

- Es necesario **adaptarse a su forma de trabajo**.
- Debes adaptar tu diseño a un **grid de 12 columnas**.
- Trae **anchos y márgenes por defecto**, que a veces son un poco tediosos de cambiar.
- A veces hacer **implementar un diseño impuesto**, puede llegar a resultar bastante difícil, al menos si eres un perfeccionista.

## 2.4 DESCARGA

- <https://github.com/twbs/bootstrap/releases>

```
bootstrap/
  |-- css/
  |   |-- bootstrap.css
  |   |-- bootstrap.min.css
  |   |-- bootstrap-theme.css
  |   |-- bootstrap-theme.min.css
  |-- js/
  |   |-- bootstrap.js
  |   |-- bootstrap.min.js
  fonts/
```

## 2.5 PLANTILLA BÁSICA

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta name="viewport" . . .>
    <title>Template</title>
    <link href="bootstrap.min.css" . . .>
  </head>
  <body>
    <h1>Hello, world!</h1>
    <script src=" . . ./jquery.min.js"></script>
    <script src="bootstrap.min.js"></script>
  </body>
</html>
```

# 3 RESUMEN CSS

## 3.1 HTML5 DOCTYPE

- Bootstrap necesita un **doctype** de HTML5:

```
<!DOCTYPE html>
<html lang="en">
  ...
</html>
```

## 3.2 MOBILE FIRST

- Desde la versión 3, Boostrap es **Mobile first**.
- Para garantizar un buen renderizado y un buen funcionamiento del zoom:

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

# 4 GRID SYSTEM

## 4.1 INTRODUCCIÓN

- Bootstrap incluye un **sistema de rejilla responsive y mobile first de 12 columnas**.

## 4.2 FUNCIONAMIENTO

- El sistema de rejilla de Bootstrap **funciona así**:
  - Se deben colocar `.row` dentro de un `.container` (ancho fijo) o `.container-fluid` (ancho completo).
  - Utilice `.row` para crear grupos horizontales.
  - El contenido se debe colocar entre `.row` y deben de ser **hijos inmediatos**.
  - Si hay más de 12 columnas en una `.row`, estas son desplazadas abajo.

## 4.3 1 COLUMNA (I)

- Ejemplo de 1 columna de un tamaño de 12

1 columna de un tamaño de 12

The image shows a light gray rectangular box with a thin black border. Inside, there are four horizontal sections separated by thin white lines. Each section contains a dark gray number: '1' in the top section, '2' in the second, '3' in the third, and '4' in the bottom. The box is centered on the slide.

1 columna

## 4.4 1 COLUMNA (II)

- Ejemplo de 1 columna de un tamaño de 12

```
<div class="row">
  <div class="col-xs-12">1</div>
  <div class="col-xs-12">2</div>
  <div class="col-xs-12">3</div>
  <div class="col-xs-12">4</div>
</div>
```

## 4.5 2 COLUMNAS (I)

- Ejemplo de 2 columnas de un tamaño de 6

2 columnas de un tamaño de 6	
1	2
3	4

2 columnas

## 4.6 2 COLUMNAS (II)

- Ejemplo de 2 columnas de un tamaño de 6

```
<div class="row">
  <div class="col-xs-6">1</div>
  <div class="col-xs-6">2</div>
  <div class="col-xs-6">3</div>
  <div class="col-xs-6">4</div>
</div>
```

## 4.7 3 COLUMNAS (I)

- Ejemplo de 3 columnas de un tamaño de 4

3 columnas de un tamaño de 4		
1	2	3
4		

3 columnas

## 4.8 3 COLUMNAS (II)

- Ejemplo de 3 columnas de un tamaño de 4

```
<div class="row">
  <div class="col-xs-4">1</div>
  <div class="col-xs-4">2</div>
  <div class="col-xs-4">3</div>
  <div class="col-xs-4">4</div>
</div>
```

## 4.9 4 COLUMNAS (I)

- Ejemplo de 4 columnas de un tamaño de 3

4 columnas de un tamaño de 3			
1	2	3	4

4 columnas

## 4.10 4 COLUMNAS (II)

- Ejemplo de 4 columnas de un tamaño de 3

```
<div class="row">
  <div class="col-xs-3">1</div>
  <div class="col-xs-3">2</div>
  <div class="col-xs-3">3</div>
  <div class="col-xs-3">4</div>
</div>
```

## 4.11 MULTIDISPOSITIVO

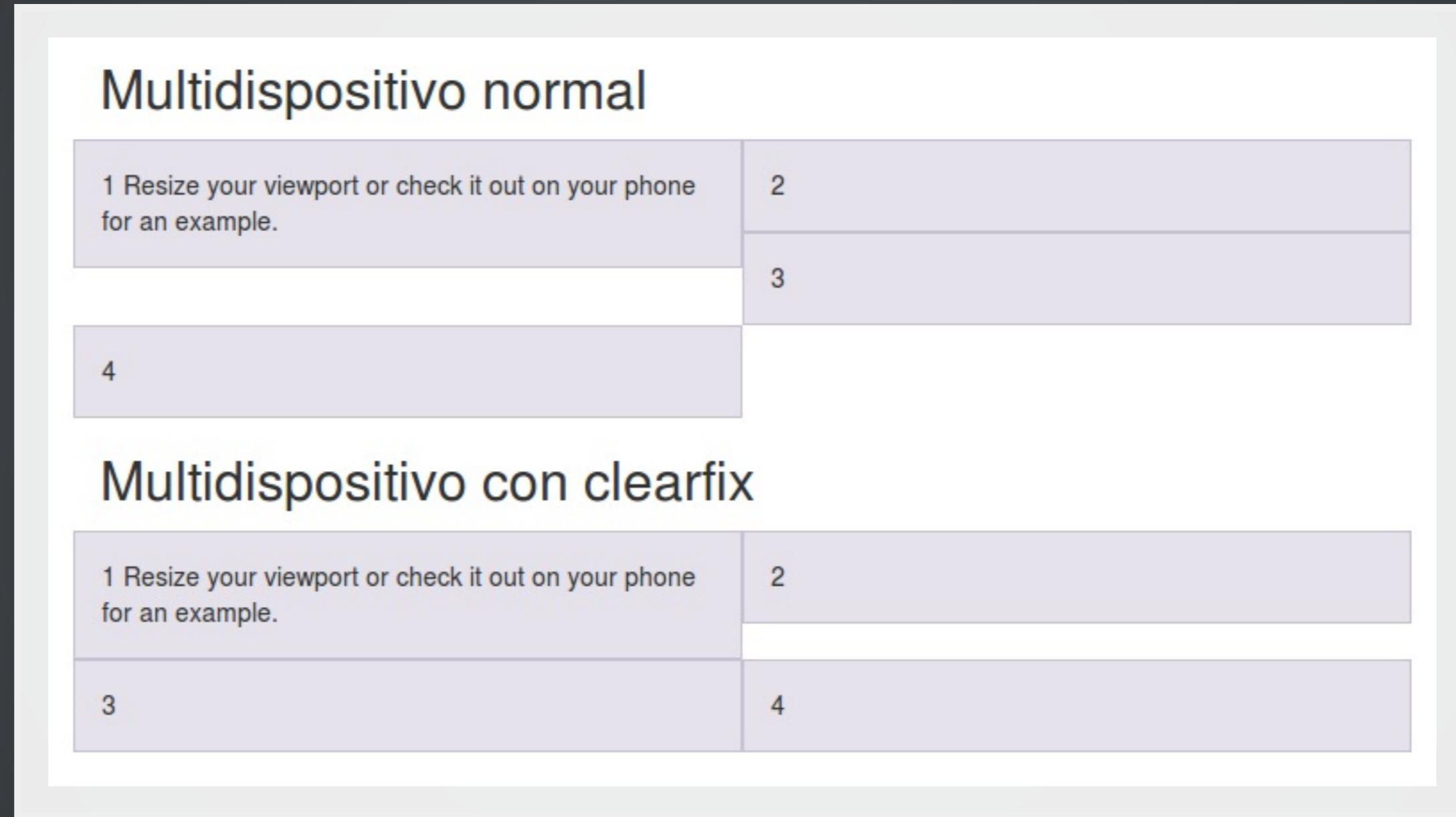
- 1 columna para xs ( $<768\text{px}$ )
- 2 columnas para sm ( $\geq 768\text{px}$ )
- 3 columnas para md ( $\geq 992\text{px}$ )
- 4 columnas para lg ( $\geq 1200\text{px}$ )

## 4.12 NORMAL

```
<div class="row">
  <div class="col-xs-12 col-sm-6 col-md-4 col-lg-3">1</div>
  <div class="col-xs-12 col-sm-6 col-md-4 col-lg-3">2</div>
  <div class="col-xs-12 col-sm-6 col-md-4 col-lg-3">3</div>
  <div class="col-xs-12 col-sm-6 col-md-4 col-lg-3">4</div>
</div>
```

## 4.13 CLEARFIX (I)

- Problema cuando una capa tiene un alto mayor que la de los demás:



Problemaclearfix

## 4.14 CLEARFIX (II)

```
<div class="row">
  <div class="...">1 Resize your viewport</div>
  <div class="...">2</div>
  <div class="clearfix visible-sm-block"></div>
  <div class="...">3</div>
  <div class="clearfix visible-md-block"></div>
  <div class="...">4</div>
</div>
```

# 4.15 HUECOS CON OFFSET (I)



Huecos con offset

## 4.16 HUECOS CON OFFSET (II)

```
<div class="row">
  <div class="col-md-4">.col-md-4</div>
  <div class="col-md-4 col-md-offset-4">.col-md-4 .col-md-offset-4</div>
</div>
<div class="row">
  <div class="col-md-3 col-md-offset-3">.col-md-3 .col-md-offset-3</div>
  <div class="col-md-3 col-md-offset-3">.col-md-3 .col-md-offset-3</div>
</div>
<div class="row">
  <div class="col-md-6 col-md-offset-3">.col-md-6 .col-md-offset-3</div>
</div>
```

# 5 TIPOGRAFÍA

# 5.1 CABECERAS (I)

**h1.Cabeceras con Bootstrap** Texto secundario con small

**h2.Cabeceras con Bootstrap** Texto secundario con small

**h3.Cabeceras con Bootstrap** Texto secundario con small

**h4.Cabeceras con Bootstrap** Texto secundario con small

**h5.Cabeceras con Bootstrap** Texto secundario con small

**h6.Cabeceras con Bootstrap** Texto secundario con small

Cabeceras

## 5.2 CABECERAS (II)

```
<h1>h1.Cabeceras con Bootstrap  
  <small>Texto secundario</small></h1>  
  
<h2>h2.Cabeceras con Bootstrap  
  <small>Texto secundario</small></h2>
```

## 5.3 PÁRRAFOS (I)

### PÁRRAFOS

Párrafo con class="lead"

bla, bla

Párrafo normal

bla, bla

Párrafo con class="small"

bla, bla

Párrafos

## 5.4 PÁRRAFOS (II)

```
<p class="lead">  
    Párrafo con class="lead"</p>  
  
<p>Párrafo normal</p>  
  
<p class="small">  
    Párrafo con class="small"</p>
```

## 5.5 TEXTOS EN LÍNEA (I)

### TEXTOS EN LÍNEA

Puedes usar el tag strong para darle **mucho énfasis** a un texto

Puedes usar el tag em para darle *émfasis* a un texto

Puedes usar el tag mark para **marcar** un texto

Puedes usar el tag ins para insertar un texto

Puedes usar el tag del para ~~borrar~~ un texto

Textos en línea

## 5.6 TEXTOS EN LÍNEA (II)

```
<p>Puedes usar el tag strong para darle <strong>mucho émfasis</strong> a un texto</p>
<p>Puedes usar el tag em para darle <em>émfasis</em> a un texto</p>
<p>Puedes usar el tag mark para <mark>marcar</mark> un texto</p>
<p>Puedes usar el tag ins para <ins>insertar</ins> un texto</p>
<p>Puedes usar el tag del para <del>borrar</del> un texto</p>
```

# 5.7 ALINEACIÓN (I)

## ALINEACIÓN DE TEXTOS

Texto alineado a la izquierda.

Texto centrado.

Texto alineado a la derecha.

Texto justificado. Texto justificado.

Texto sin ajuste. Texto sin ajuste.

Alineación

## 5.8 ALINEACIÓN (II)

```
<p class="text-left">Texto alineado a la izquierda.</p>
<p class="text-center">Texto centrado.</p>
<p class="text-right">Texto alineado a la derecha.</p>
<p class="text-justify">Texto justificado.</p>
<p class="text-nowrap">Texto sin ajuste.</p>
```

## 5.9 CAPITALIZACIÓN (I)

CAPITALIZACIÓN

texto en minúsculas

TEXTO EN MAYÚSCULAS

Texto Tipo Título

Capitalización

## 5.10 CAPITALIZACIÓN (II)

```
<p class="text-lowercase">Lowercased text.</p>
<p class="text-uppercase">Uppercased text.</p>
<p class="text-capitalize">Capitalized text.</p>
```

## 5.11 ABREVIATURAS (I)

### ABREVITURAS

HTML es una abreviatura. Pasa el ratón por encima para averiguar de que se trata.

HyperText Markup Language

Abreviaturas

## 5.12 ABREVIATURAS (II)

<abbr title="HyperText Markup Language">HTML</abbr> es una abreviatura.

## 5.13 DIRECCIONES (I)

### DIRECCIONES

**Twitter, Inc.**

795 Folsom Ave, Suite 600

San Francisco, CA 94107

P: (123) 456-7890

**Full Name**

[first.last@example.com](mailto:first.last@example.com)

Direcciones

## 5.14 DIRECCIONES (II)

```
<address>
  <strong>Twitter, Inc.</strong><br>
  795 Folsom Ave, Suite 600<br>
  San Francisco, CA 94107<br>
  <abbr title="Phone">P:</abbr>
  (123) 456-7890
</address>

<address>
  <strong>Full Name</strong><br>
  <a href="mailto:#">info@name.com</a>
</address>
```

# 5.15 CITAS (I)

## CITAS

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer posuere erat a ante.

Someone famous in Source Title —

Citas

## 5.16 CITAS (II)

```
<blockquote class="blockquote">  
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer po  
    <footer>Someone famous in <cite title="Source Title">Source Title</cite>  
</blockquote>
```

## 5.17 LISTAS (I)

LISTAS

Peras Manzanas Naranjas Platanos

Listas

## 5.18 LISTAS (II)

```
<ul class="list-inline">
  <li>Peras</li>
  <li>Manzanas</li>
  <li>Naranjas</li>
  <li>Platanos</li>
</ul>
```

# 5.19 DESCRIPCIONES (I)

## DESCRIPCIONES

<b>Descripción</b>	Perfecta para definir términos.
<b>Euismod</b>	Vestibulum id ligula porta felis euismod semper eget lacinia odio sem nec elit.
<b>Felis euismod sempe...</b>	Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus.

Descripciones

## 5.20 DESCRIPCIONES (II)

```
<dl class="dl-horizontal">
  <dt>Descripción</dt>
  <dd>Perfecta para definir.</dd>
  <dt>Euismod</dt>
  <dd>Vestibulum id ligula...</dd>
  <dt>Felis euismod semper eget</dt>
  <dd>Fusce dapibus, tellus ...</dd>
</dl>
```

# 6 TABLAS

## 6.1 CLASES

- **table**: para darle el formato
- **table-striped**: para darle formato a las pares y a las impares
- **table-bordered**: para ponerle bordes a la tabla
- **table-hover**: para oscurecer la fila en donde está el ratón
- **table-condensed**: para que ocupe menos espacio

## 6.2 RESPONSIVE

- Poniendo la tabla dentro de una `capa con class=table-responsive` aparecerá un scroll horizontal en la tabla en dispositivos pequeños.

## 6.3 EJEMPLO (I)

table ALL

#	First Name	Last Name	Username
1	Mark	Otto	@mdo
2	Jacob	Thornton	@fat
3	Larry	the Bird	@twitter

Tabla

## 6.4 EJEMPLO (II)

```
<div class="table-responsive">
  <table class="table table-striped table-bordered table-hover table-co
    <thead>
      <tr>
        <th>...
    </thead>
    <tbody>
      <tr>
        <td>...
    </tbody>
  </table>
</div>
```

# 7 FORMULARIOS

# 7.1 NORMAL

Ejemplo básico

Email address

Password

Remember me

Formulario normal

## 7.2 INLINE

The image shows a screenshot of a web page featuring a login form. The title 'form-inline' is displayed in a bold, sans-serif font at the top left of the form area. Below the title, there are two input fields: 'Enter email' and 'Password', both enclosed in light gray boxes with thin black borders. To the right of these fields is a small checkbox labeled 'Remember me'. Next to the checkbox is a rectangular button with the text 'Sign in' in a dark font. The entire form is set against a white background with a thin gray border.

Formulario inline

## 7.3 HORIZONTAL

form-horizontal

Email

Password

Remember me

Sign in

Formulario horizontal

## 7.4 EJEMPLO

```
<form class="form" role="form">
  <div class="form-group">
    <label for="inputEmail3" class="col-sm-2 control-label">Email</label>
    <div class="col-sm-10">
      <input class="form-control" id="inputEmail3"
        placeholder="Enter Email" type="email">
    </div>
  </div>
  <div class="form-group">
    <div class="col-sm-offset-2 col-sm-10">
      <button type="submit" class="btn btn-default"> Sign in</button>
    </div>
  </div>
</form>
```

# 7.5 VALIDACIONES (I)

**Validaciones**

**Input with success**



**Input with warning**



**Input with error**



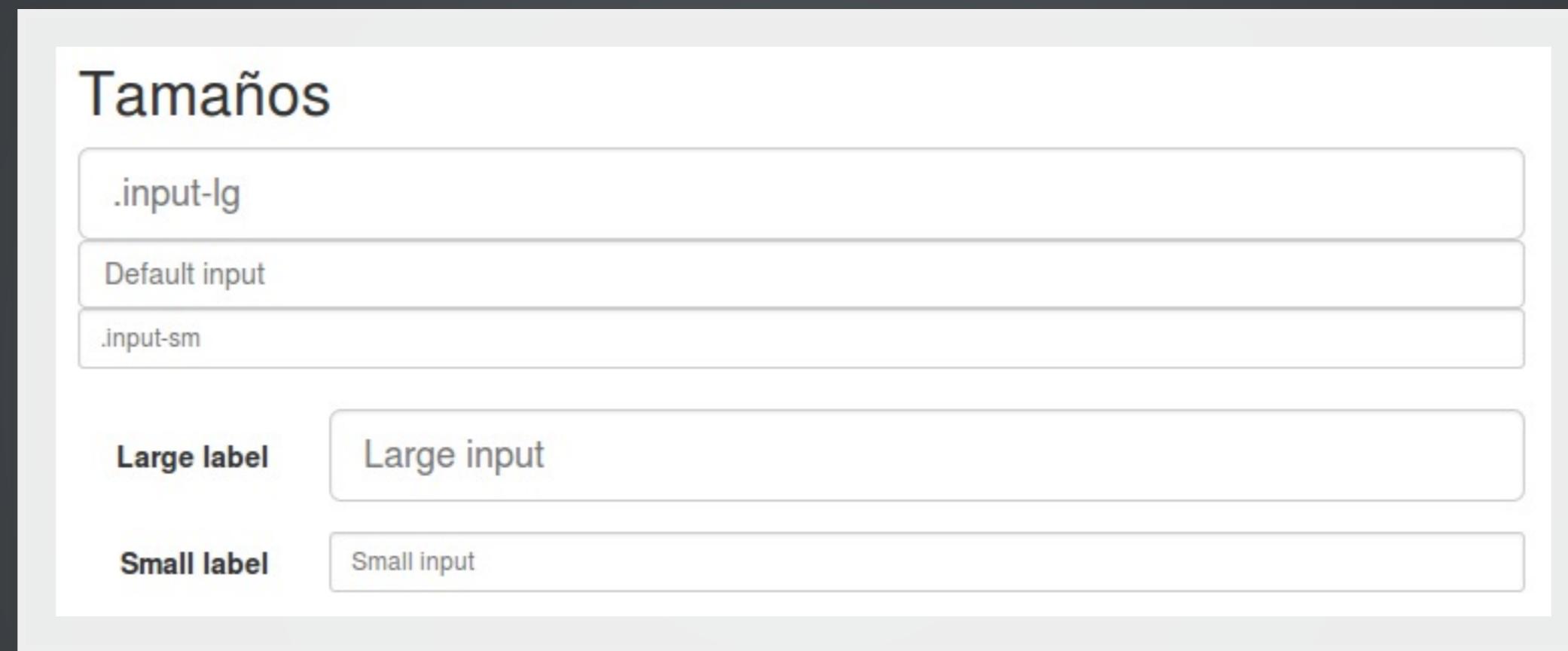
Formulario Validaciones

## 7.6 VALIDACIONES (II)

- Usar los helpers `has-success`, `has-warning` y `has-error`

```
<div class="form-group has-success has-feedback">
  <label class="control-label" for="inputSuccess2">
    Input with success</label>
  <input type="text" class="form-control" id="inputSuccess2">
  <span class="glyphicon glyphicon-ok form-control-feedback"></span>
</div>
```

# 7.7 TAMAÑOS (I)



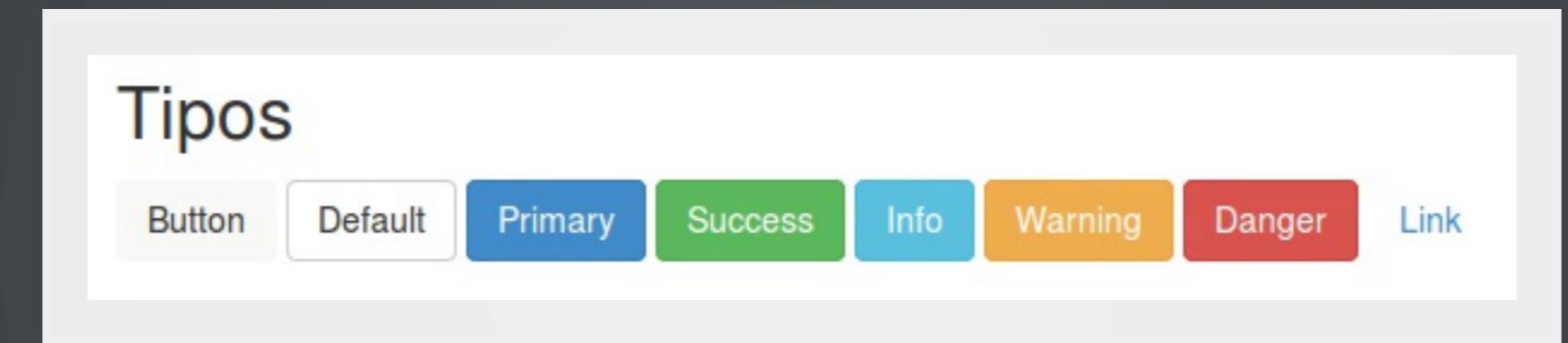
Tamaños

## 7.8 TAMAÑOS (II)

- Usar los helpers `form-group-lg` o `form-group-sm` o bien, en caso de inputs aislados que no estén dentro de un `form-group`, usar `input-lg` o `input-sm`

**8 BOTONES**

## 8.1 TIPOS (I)

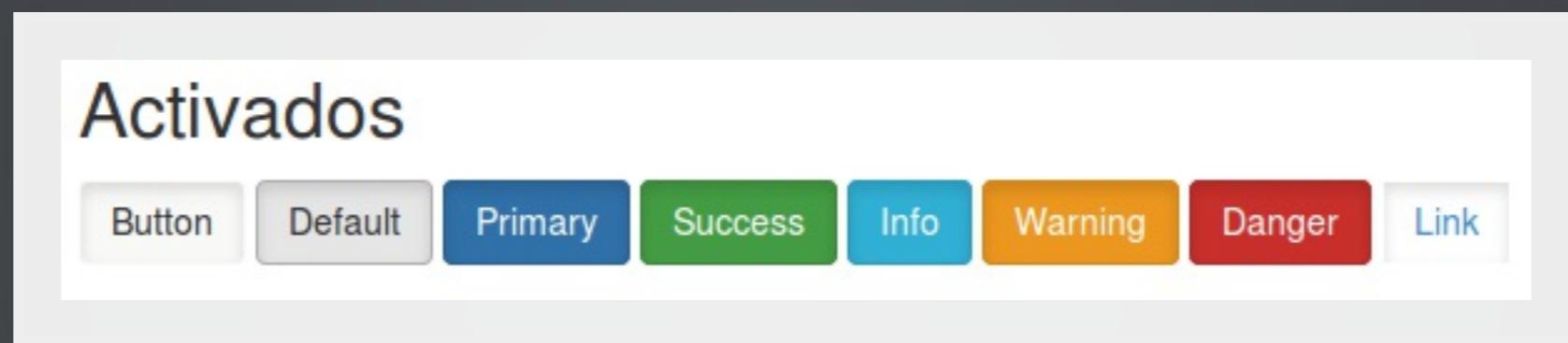


Tipos de botones

## 8.2 TIPOS (II)

```
<button type="button" class="btn">Button</button>
<button type="button" class="btn btn-default">Default</button>
<button type="button" class="btn btn-primary">Primary</button>
<button type="button" class="btn btn-success">Success</button>
<button type="button" class="btn btn-info">Info</button>
<button type="button" class="btn btn-warning">Warning</button>
<button type="button" class="btn btn-danger">Danger</button>
```

## 8.3 ACTIVADOS (I)

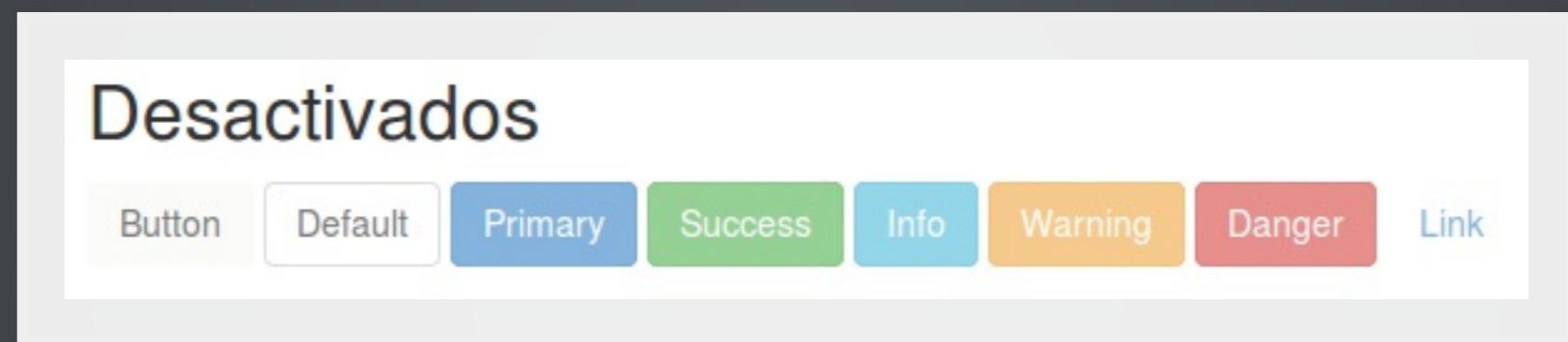


Botones activados

## 8.4 ACTIVADOS (II)

```
<button type="button" class="btn active">Button</button>
<button type="button" class="btn active btn-default">Default</button>
<button type="button" class="btn active btn-primary">Primary</button>
<button type="button" class="btn active btn-success">Success</button>
<button type="button" class="btn active btn-info">Info</button>
<button type="button" class="btn active btn-warning">Warning</button>
<button type="button" class="btn active btn-danger">Danger</button>
```

## 8.5 DESACTIVADOS (I)

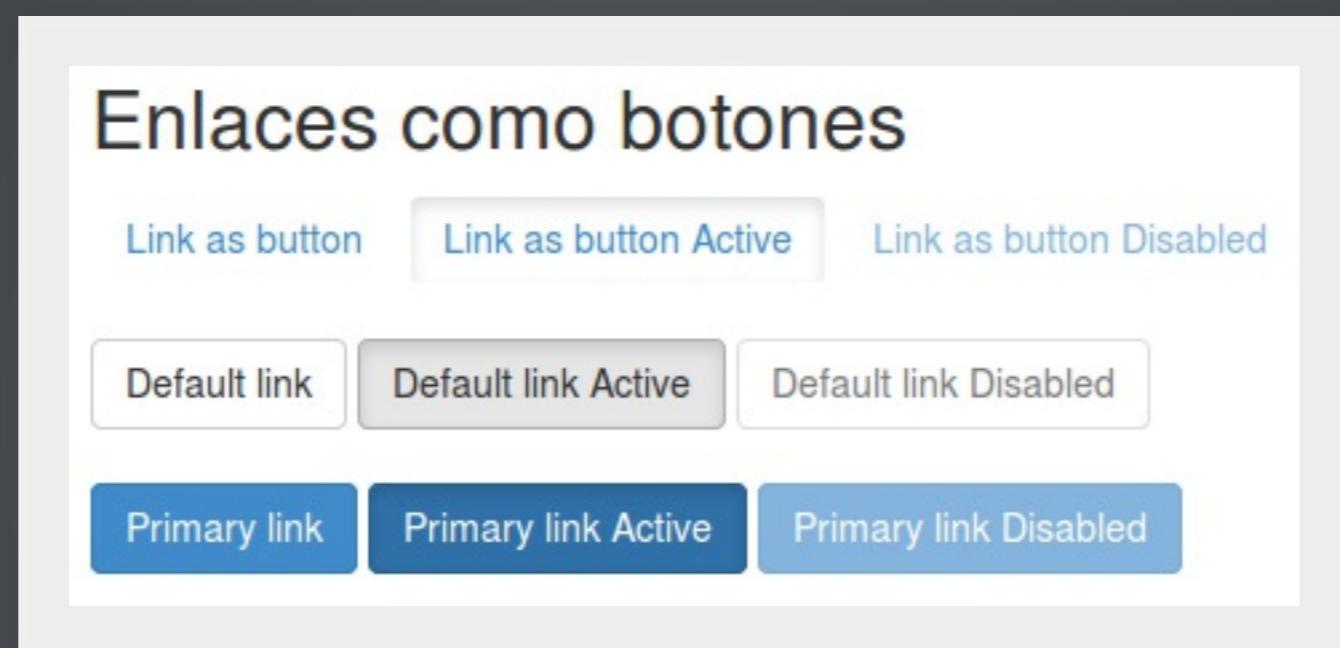


Botones desactivados

## 8.6 DESACTIVADOS (II)

```
<button type="button" disabled="disabled" class="btn">Button</button>
<button type="button" disabled="disabled" class="btn btn-default">Default</button>
<button type="button" disabled="disabled" class="btn btn-primary">Primary</button>
<button type="button" disabled="disabled" class="btn btn-success">Success</button>
<button type="button" disabled="disabled" class="btn btn-info">Info</button>
<button type="button" disabled="disabled" class="btn btn-warning">Warning</button>
<button type="button" disabled="disabled" class="btn btn-danger">Danger</button>
```

# 8.7 ENLACES (I)

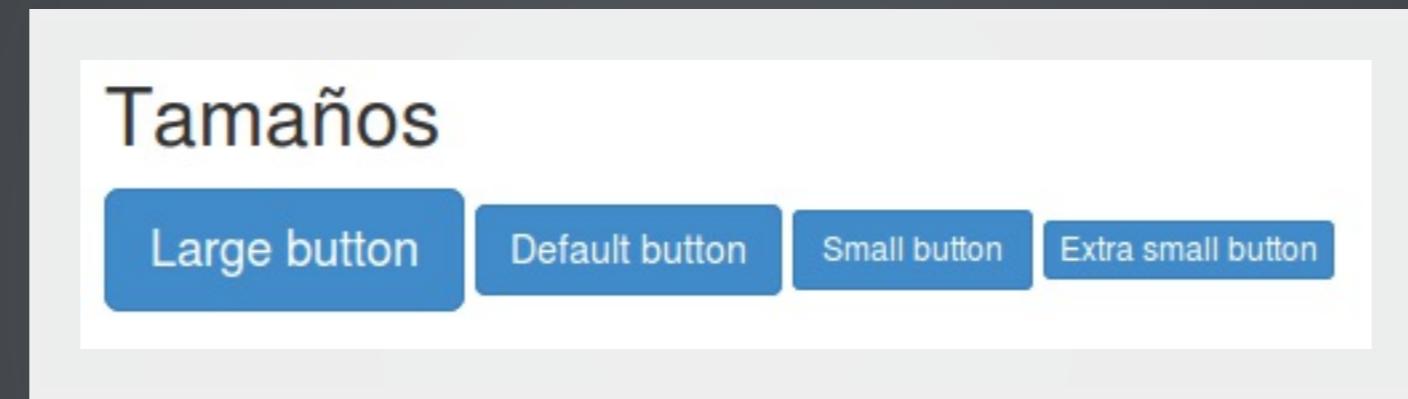


Enlaces como botones

## 8.8 ENLACES (II)

```
<a href="#" class="btn" role="button">Link as button</a>
<a href="#" class="btn active" role="button">Link as button Active</a>
<a href="#" class="btn disabled" role="button">Link as button Disabled</a>
<br /><br />
<a href="#" class="btn btn-default" role="button">Default link</a>
<a href="#" class="btn btn-default active" role="button">Default link Active</a>
<a href="#" class="btn btn-default disabled" role="button">Default link Disabled</a>
<br /><br />
<a href="#" class="btn btn-primary" role="button">Primary link</a>
<a href="#" class="btn btn-primary active" role="button">Primary link Active</a>
<a href="#" class="btn btn-primary disabled" role="button">Primary link Disabled</a>
```

## 8.9 TAMAÑOS (I)

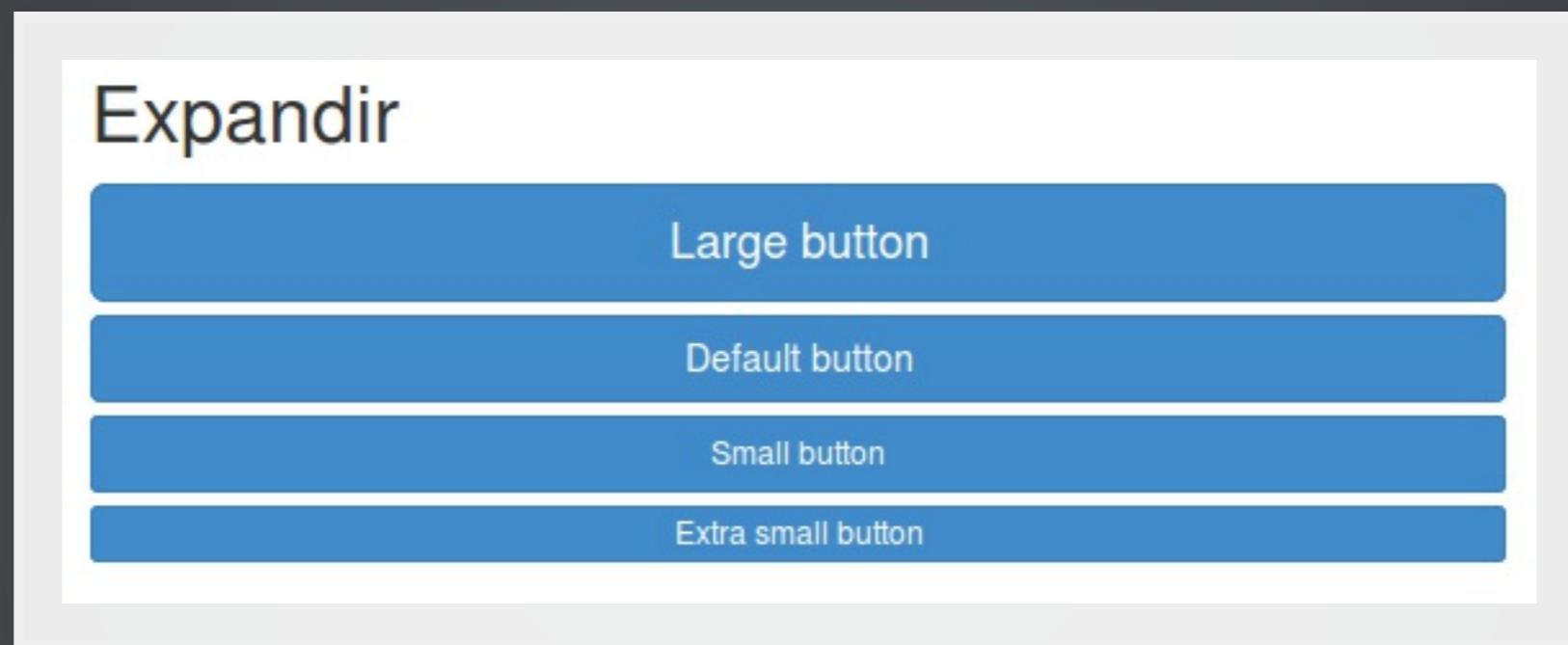


Tamaños de los botones

## 8.10 TAMAÑOS (II)

```
<button type="button" class="btn btn-primary btn-lg">Large button</button>
<button type="button" class="btn btn-primary">Default button</button>
<button type="button" class="btn btn-primary btn-sm">Small button</button>
<button type="button" class="btn btn-primary btn-xs">Extra small button</button>
```

## 8.11 EXPANDIR (I)



Expandir los botones

## 8.12 EXPANDIR (II)

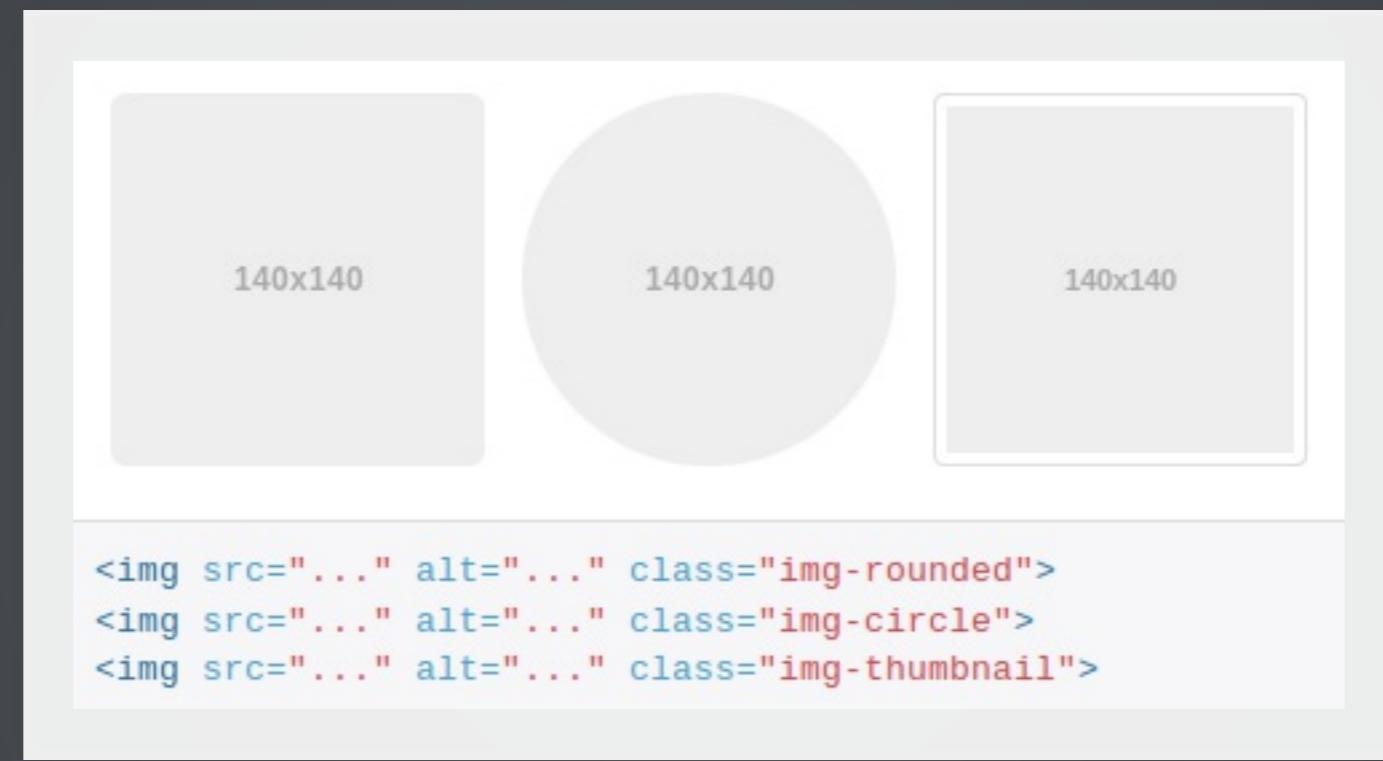
```
<button type="button" class="btn btn-primary btn-lg btn-block">Large button</button>
<button type="button" class="btn btn-primary btn-block">Default button</button>
<button type="button" class="btn btn-primary btn-sm btn-block">Small button</button>
<button type="button" class="btn btn-primary btn-xs btn-block">Extra small button</button>
```

**9 IMÁGENES**

## 9.1 RESPONSIVE

- Añadir `class=img-responsive` pondrá `max-size=100%` y `height=auto`.

## 9.2 EFECTOS



Efectos de imágenes

# 10 HELPERS

# 10.1 TEXTOS COLOREADOS (I)

## Textos coloreados

text-muted

text-primary

text-success

text-info

text-warning

text-danger

Textos coloreados

## 10.2 TEXTOS COLOREADOS (II)

```
<p class="text-muted">text-muted</p>
<p class="text-primary">text-primary</p>
<p class="text-success">text-success</p>
<p class="text-info">text-info</p>
<p class="text-warning">text-warning</p>
<p class="text-danger">text-danger</p>
```

## 10.3 COLORES DE FONDO (I)

### Colores de fondo

bg-primary

bg-success

bg-info

bg-warning

bg-danger

Colores de fondo

## 10.4 COLORES DE FONDO (II)

```
<p class="bg-primary">bg-primary</p>
<p class="bg-success">bg-success</p>
<p class="bg-info">bg-info</p>
<p class="bg-warning">bg-warning</p>
<p class="bg-danger">bg-danger</p>
```

# 10.5 FLOAT

```
<div class="pull-left">pull-left</div>
<div class="pull-right">pull-right</div>
```

## 10.6 MOSTRAR Y OCULTAR

```
<p>class=show > display: block</p>
<div class="show">show</div>

<p>class=hidden > display: none</p>
<div class="hidden">hidden</div>

<p>class=invisible > visibility: hidden (no desaparece del dom) </p>
<div class="invisible">invisible</div>
```

# 10.7 ACCESIBILIDAD

```
<p>class=sr-only > solo aparece en los lectores de pantalla</p>  
<p>class=sr-only-focusable > aparece cuando se hace foco sobre él</p>  
<a class="sr-only sr-only-focusable" href="#content">Skip to main content</a>
```

# 11 RESPONSIVE

## 11.1 ESCONDER SEGÚN DISPOSITIVO

```
<p class="hidden-xs bg-primary">hidden-xs</p>
<p class="hidden-sm bg-primary">hidden-sm</p>
<p class="hidden-md bg-primary">hidden-md</p>
<p class="hidden-lg bg-primary">hidden-lg</p>
```

## 11.2 MOSTRAR COMO BLOCK SEGÚN DISPOSITIVO

```
<p class="visible-xs-block bg-primary">visible-block-xs</p>
<p class="visible-sm-block bg-primary">visible-block-sm</p>
<p class="visible-md-block bg-primary">visible-block-md</p>
<p class="visible-lg-block bg-primary">visible-block-lg</p>
```

## 11.3 MOSTRAR COMO INLINE SEGÚN DISPOSITIVO

```
<p class="visible-xs-inline bg-primary">visible-xs-inline</p>
<p class="visible-sm-inline bg-primary">visible-sm-inline</p>
<p class="visible-md-inline bg-primary">visible-md-inline</p>
<p class="visible-lg-inline bg-primary">visible-lg-inline</p>
```

## 11.4 MOSTRAR U OCULTAR PARA IMPRIMIR

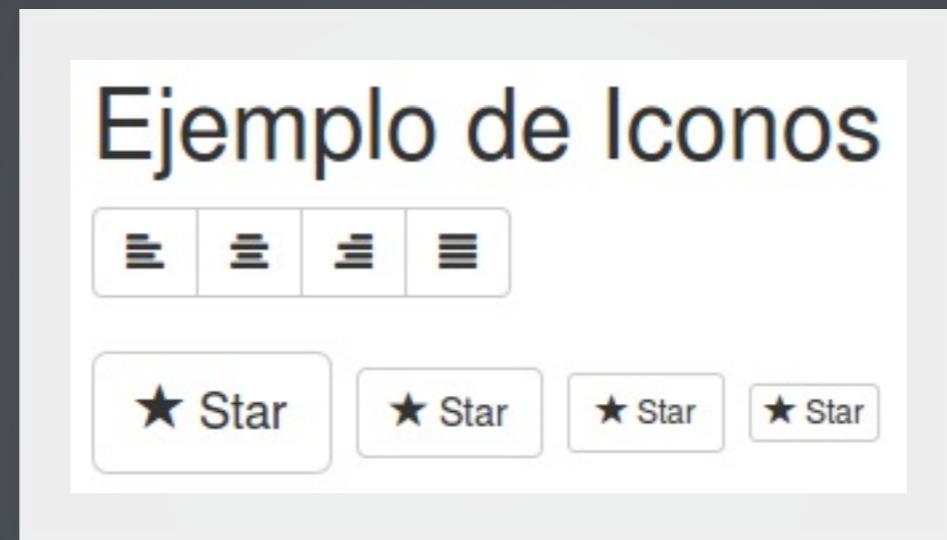
```
<p class="hidden-print bg-primary">hidden-print</p>
<p class="visible-print-block bg-primary">visible-print-block</p>
<p class="visible-print-inline bg-primary">visible-print-inline</p>
```

# 12 COMPONENTES

## 12.1 ICONOS (I)

- Utiliza una versión reducida de **glyphicon**:
  - <http://glyphicon.com>
- Alternativa **Font-Awesome**:
  - <http://fortawesome.github.io/Font-Awesome>

## 12.2 ICONOS (II)

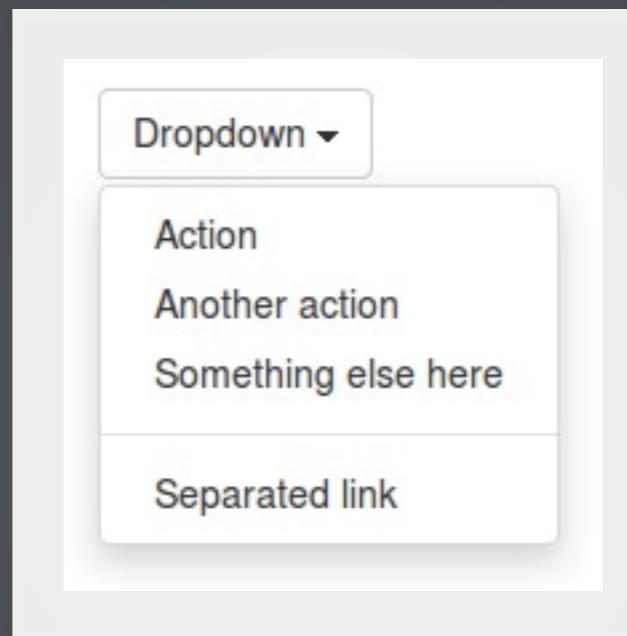


Ejemplo de iconos

## 12.3 ICONOS (III)

```
<button type="button" class="btn btn-default">  
  <span class="glyphicon glyphicon-star"></span> Star  
</button>
```

## 12.4 DROPODOWN (I)

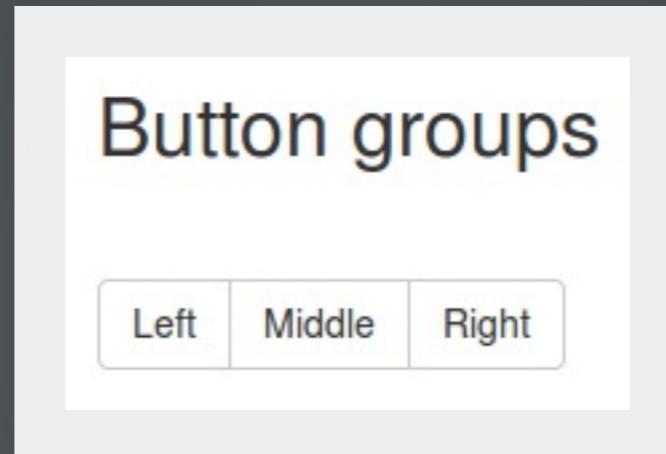


Dropdown

## 12.5 DROPODOWN (II)

```
<div class="dropdown">
  <button ... data-toggle="dropdown">Dropdown</button>
  <ul ... class="dropdown-menu" role="menu">
    <li role="presentation" class="dropdown-header">Header</li>
    <li role="presentation" class="divider"></li>
    <li role="presentation">
      <a role="menuitem" ... href="#">Action</a></li>
    </ul>
</div>
```

## 12.6 BUTTON GROUPS (I)



Button groups

## 12.7 BUTTON GROUPS (II)

```
<div class="btn-group">
  <button type="button" class="btn btn-default">Left</button>
  <button type="button" class="btn btn-default">Middle</button>
  <button type="button" class="btn btn-default">Right</button>
</div>
```

# 12.8 INPUT GROUPS (I)

Input groups

@ Username

.00

\$.00

Go! Go!

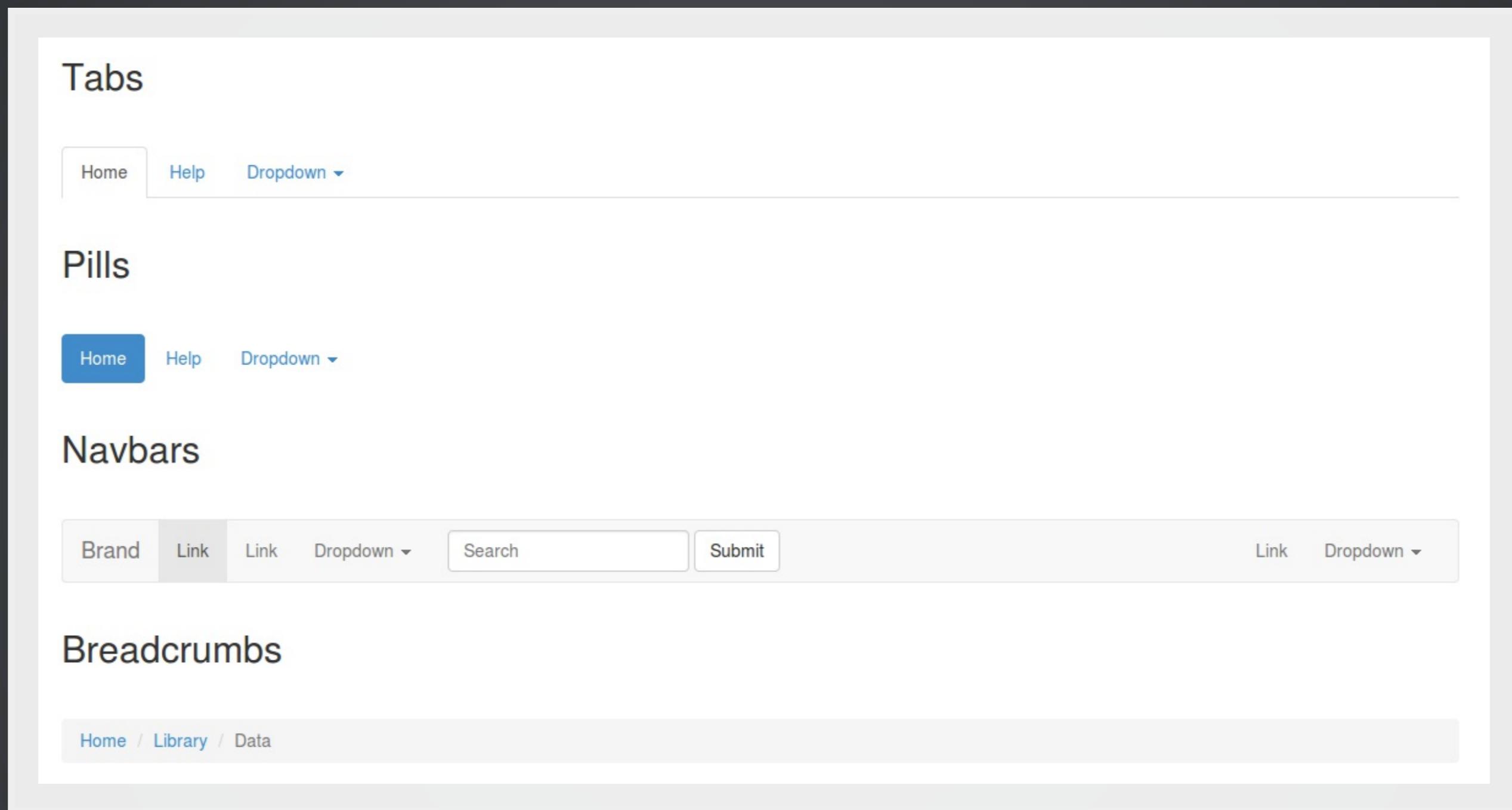
Action ▾ Action ▾

Input groups

## 12.9 INPUT GROUPS (II)

```
<div class="input-group">
  <span class="input-group-addon">@</span>
  <input type="text" class="form-control" placeholder="Username">
</div>
```

# 12.10 VARIOS



Tabs, pills, navbars, breadcrumbs

## 12.11 TABS

```
<ul class="nav nav-tabs" role="tablist">
  <li class="active"><a href="#">Home</a></li>
  <li><a href="#">Help</a></li>
  ...
</ul>
```

# 12.12 PILLS

```
<ul class="nav nav-pills">
  <li class="active"><a href="#">Home</a></li>
  <li><a href="#">Help</a></li>
  ...
</ul>
```

# 12.13 NAVBARS

```
<nav ...>
  <div class="container-fluid">
    <div class="navbar-header">
      <button ... id="collapse-1">
        <span class="sr-only">Toggle navigation</span>
        ...
      </button>
      <a class="navbar-brand" href="#">Brand</a>
    <div ... id="collapse-1">
      <ul class="nav navbar-nav navbar-right">
        <li><a href="#">Link</a></li>
        ...
      </ul></div>
    </div>
  </nav>
```

## 12.14 BREADCRUMBS

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

# 12.15 PAGINATION (I)

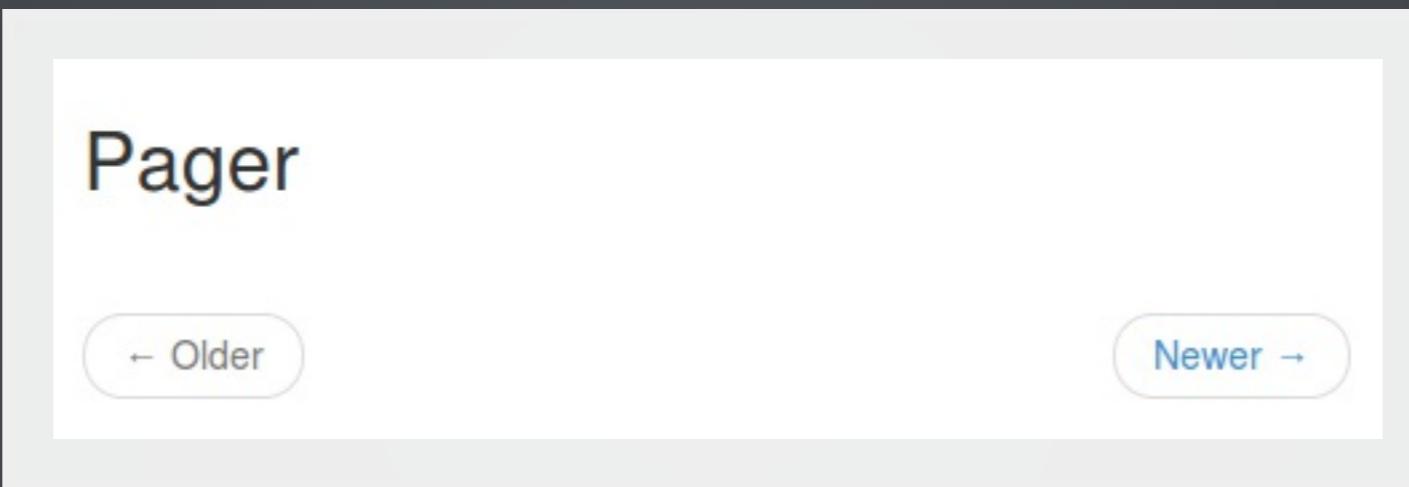


Pagination

## 12.16 PAGINATION (II)

```
<ul class="pagination">
  <li class="disabled"><span>&laquo;</span></li>
  <li class="active">
    <span>1<span class="sr-only">(current)</span></span></li>
  <li><a href="#">2</a></li>
  <li><a href="#">3</a></li>
  <li><a href="#">4</a></li>
  <li><a href="#">5</a></li>
  <li><a href="#">&raquo;</a></li>
</ul>
```

# 12.17 PAGER (I)

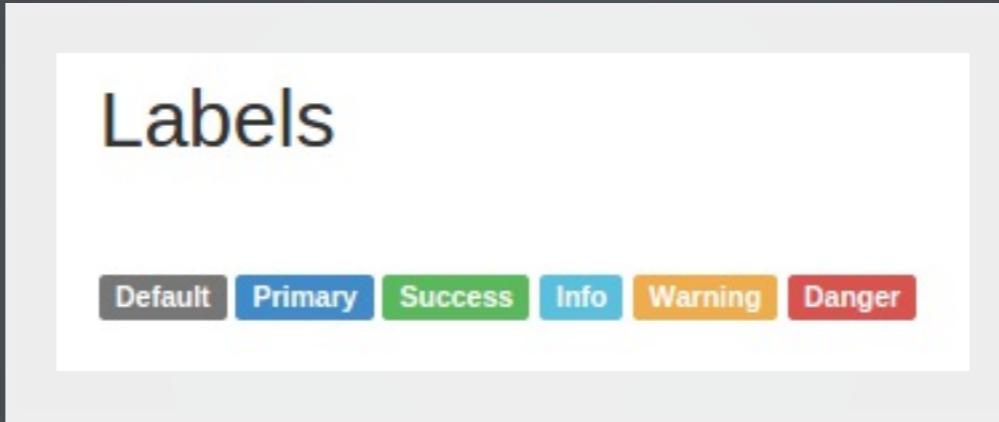


Pager

## 12.18 PAGER (II)

```
<ul class="pager">
  <li class="previous disabled"><a href="#">&larr; Older</a></li>
  <li class="next"><a href="#">Newer &rarr;</a></li>
</ul>
```

# 12.19 LABELS (I)

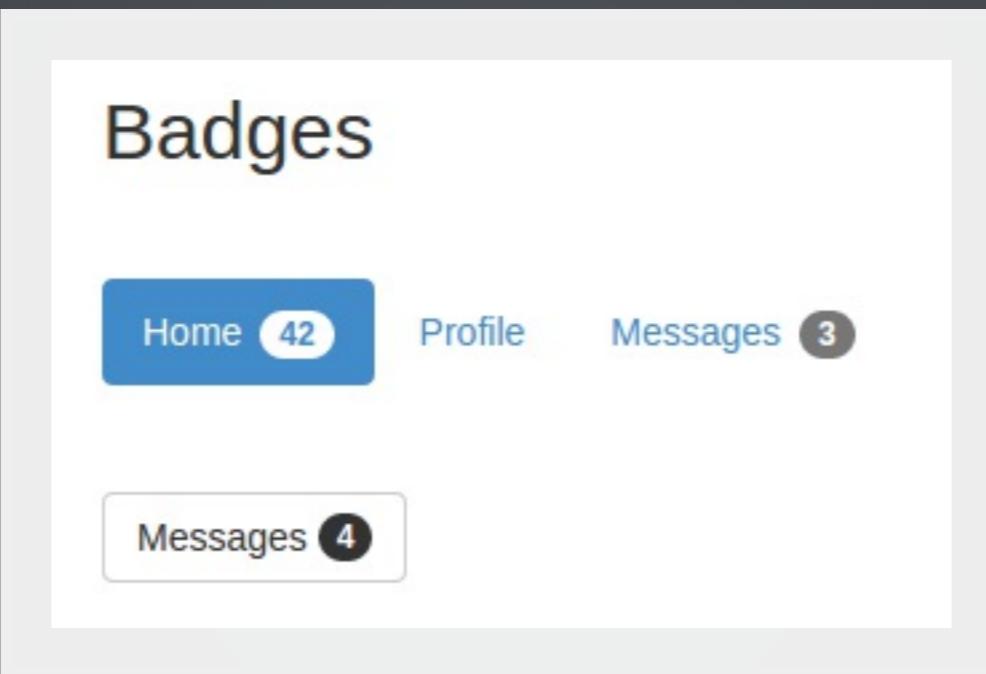


Labels

## 12.20 LABELS (II)

```
<span class="label label-default">Default</span>
<span class="label label-primary">Primary</span>
<span class="label label-success">Success</span>
<span class="label label-info">Info</span>
<span class="label label-warning">Warning</span>
<span class="label label-danger">Danger</span>
```

# 12.21 BADGES (I)



Badges

## 12.22 BADGES (II)

```
<ul class="nav nav-pills">
  <li class="active">
    <a href="#">Home<span class="badge">42</span></a></li>
  <li><a href="#">Profile</a></li>
  <li><a href="#">Messages<span class="badge">3</span></a></li>
</ul>
```

## 12.23 BADGES (III)

```
<button class="btn btn-default" type="button">Messages
  <span class="badge">4</span>
</button>
```

# 12.24 JUMBOTRON (I)

Jumbotron

## Hello, world!

This is a simple hero unit, a simple jumbotron-style component for calling extra attention to featured content or information.

[Learn more](#)

Jumbotron

# 12.25 JUMBOTRON (II)

```
<div class="jumbotron">
  <h1>Hello, world!</h1>
  <p>...</p>
  <p><a class="btn btn-primary btn-lg" role="button">Learn more</a></p>
</div>
```

# 12.26 THUMBNAILS (I)

## Thumbnails

242x200

**Thumbnail label**

Cras justo odio, dapibus ac facilisis in, egestas eget quam. Donec id elit non mi porta gravida at eget metus. Nullam id dolor id nibh ultricies vehicula ut id elit.

[Button](#) [Button](#)

242x200

**Thumbnail label**

Cras justo odio, dapibus ac facilisis in, egestas eget quam. Donec id elit non mi porta gravida at eget metus. Nullam id dolor id nibh ultricies vehicula ut id elit.

[Button](#) [Button](#)

242x200

**Thumbnail label**

Cras justo odio, dapibus ac facilisis in, egestas eget quam. Donec id elit non mi porta gravida at eget metus. Nullam id dolor id nibh ultricies vehicula ut id elit.

[Button](#) [Button](#)

Thumbnails

## 12.27 THUMBNAILS (II)

```
<div class="row">
  <div class="col-sm-6 col-md-4">
    <div class="thumbnail">
      
      <div class="caption">
        <h3>Thumbnail label</h3>
        <p>...</p>
      </div>
    </div>
  </div>
</div>
```

# 12.28 ALERTS (I)

## Alerts

**Well done!** You successfully read this important alert message.

**Heads up!** This alert needs your attention, but it's not super important.

**Warning!** Better check yourself, you're not looking too good.

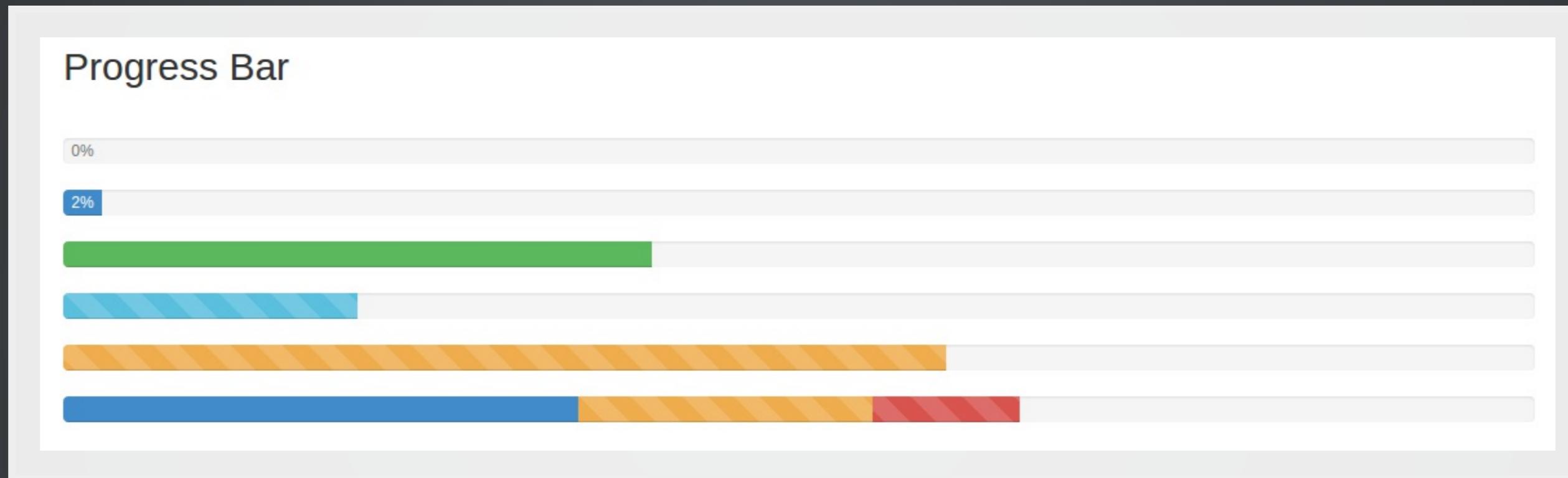
**Oh snap!** Change a few things up and try submitting again.

## Alerts

# 12.29 ALERTS (II)

```
<div class="alert alert-success" role="alert">
  <strong>Well done!</strong></div>
<div class="alert alert-info" role="alert">
  <strong>Heads up!</strong></div>
<div class="alert alert-warning" role="alert">
  <strong>Warning!</strong></div>
<div class="alert alert-danger" role="alert">
  <strong>Oh snap!</strong></div>
```

# 12.30 PROGRESS BAR (I)



Progress Bar

# 12.31 PROGRESS BAR (II)

```
<div class="progress">
  <div class="progress-bar" role="progressbar"
    aria-valuenow="0" aria-valuemin="0"
    aria-valuemax="100">0%</div></div>
<div class="progress">
  <div class="progress-bar" role="progressbar"
    aria-valuenow="2" aria-valuemin="0"
    aria-valuemax="100" style="width: 2%; ">
  2%</div></div>
```

# 12.32 PROGRESS BAR (III)

```
<div class="progress">
  <div class="progress-bar progress-bar-success"
    ... style="width: 40%"><span class="sr-only">
      40% Complete (success)...
<div class="progress">
  <div class="progress-bar progress-bar-info progress-bar-striped"
    ... style="width: 20%"><span class="sr-only">
      20% Complete...
<div class="progress">
  <div class="progress-bar progress-bar-warning progress-bar-striped active"
    ... style="width: 60%"><span class="sr-only">
      60% Complete (warning)...
```

## 12.33 PROGRESS BAR (IV)

```
<div class="progress">
  <div class="progress-bar" style="width: 35%">
    <span class="sr-only">35% Complete (success)</span></div>
  <div class="progress-bar progress-bar-warning progress-bar-striped"
       style="width: 20%"><span class="sr-only">
    20% Complete (warning)</span></div>
  <div class="progress-bar progress-bar-danger progress-bar-striped active"
       style="width: 10%"><span class="sr-only">
    10% Complete (danger)</span></div>
</div>
```

# 12.34 MEDIA (I)

## Media

### Media heading

64x64

Cras sit amet nibh libero, in gravida nulla. Nulla vel metus scelerisque ante sollicitudin commodo. Cras purus odio, vestibulum in vulputate at, tempus viverra turpis.

### Nested media heading

64x64

Cras sit amet nibh libero, in gravida nulla. Nulla vel metus scelerisque ante sollicitudin commodo. Cras purus odio, vestibulum in vulputate at, tempus viverra turpis.

### Nested media heading

64x64

Cras sit amet nibh libero, in gravida nulla. Nulla vel metus scelerisque ante sollicitudin commodo. Cras purus odio, vestibulum in vulputate at, tempus viverra turpis.

### Nested media heading

64x64

Cras sit amet nibh libero, in gravida nulla. Nulla vel metus scelerisque ante sollicitudin commodo. Cras purus odio, vestibulum in vulputate at, tempus viverra turpis.

### Media heading

Cras sit amet nibh libero, in gravida nulla. Nulla vel metus scelerisque ante sollicitudin commodo. Cras purus odio, vestibulum in vulputate at, tempus viverra turpis.

64x64

## Media

# 12.35 MEDIA (II)

```
<ul class="media-list">
  <li class="media">
    <a class="pull-left" href="#">
      
    </a>
    <div class="media-body">
      <h4 class="media-heading">Media heading</h4>
      <p>...</p>
    </div>
  </li>
</ul>
```

# 12.36 LIST GROUP (I)

## List group

Cras justo odio

Dapibus ac facilisis in

Morbi leo risus

Porta ac consectetur ac

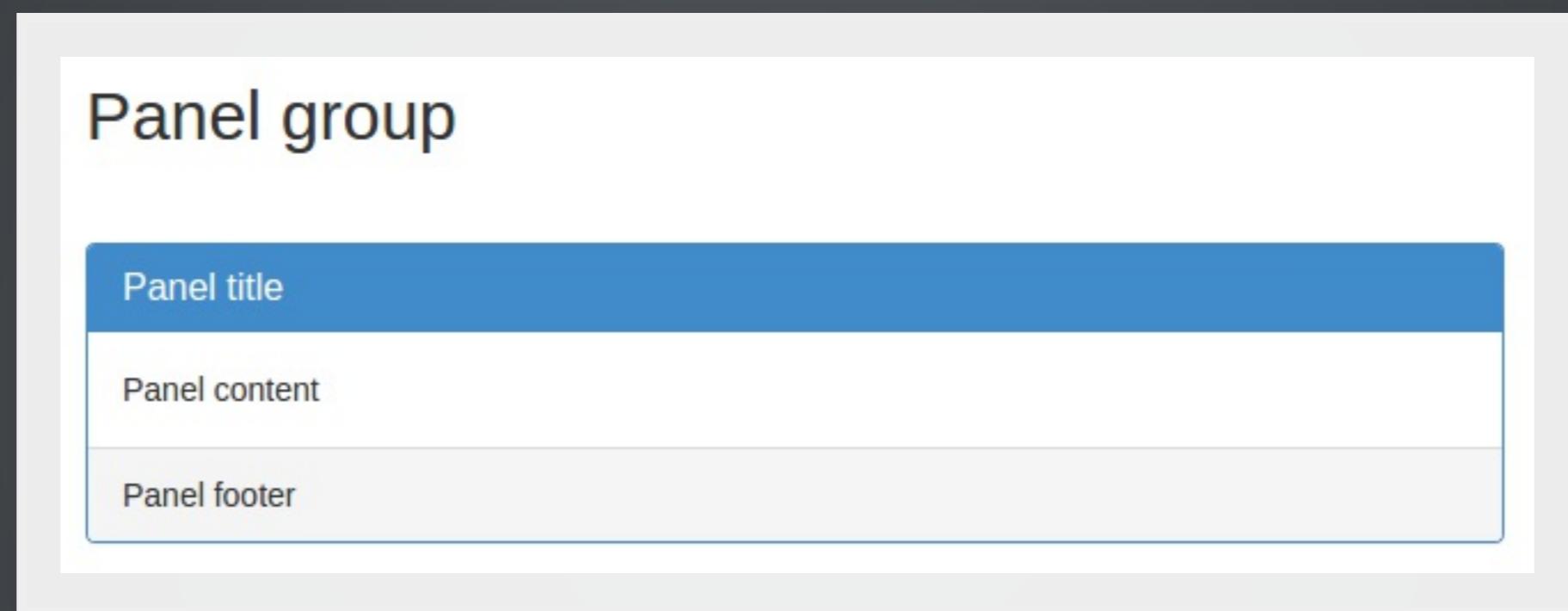
Vestibulum at eros

List group

## 12.37 LIST GROUP (II)

```
<div class="list-group">
  <a href="#" class="list-group-item active">Cras justo odio</a>
  <a href="#" class="list-group-item">Dapibus ac facilisis in</a>
  ...
</div>
```

# 12.38 PANEL GROUP (I)



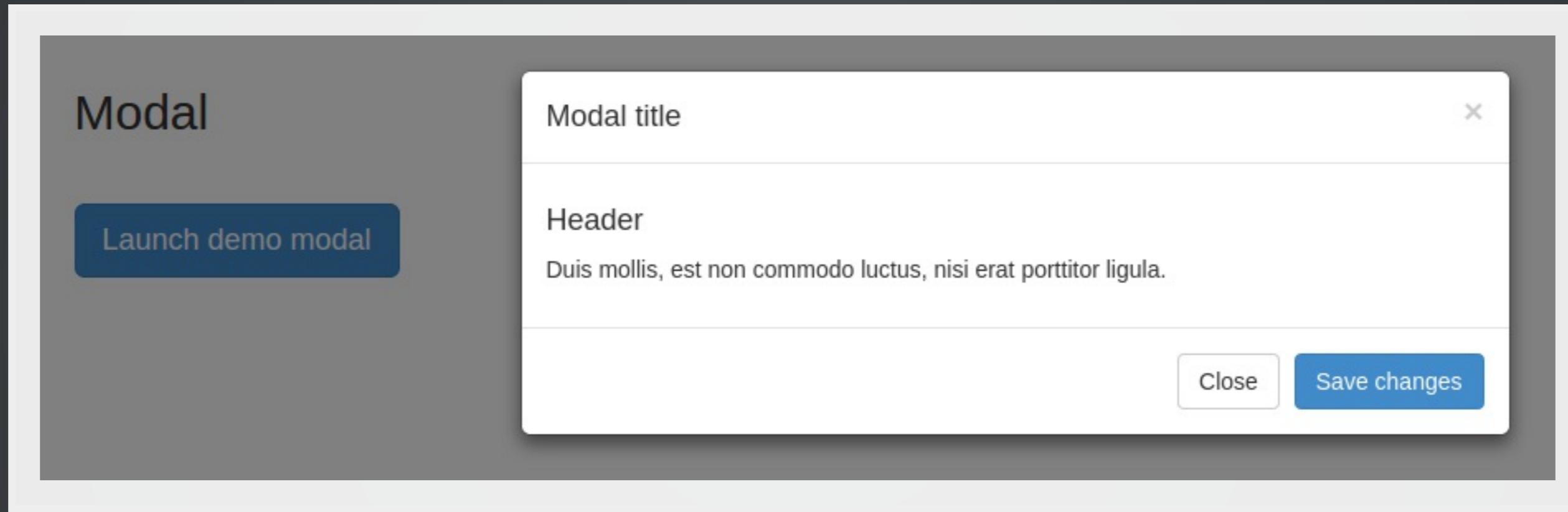
Panel group

# 12.39 PANEL GROUP (II)

```
<div class="panel panel-primary">
  <div class="panel-heading">
    <h3 class="panel-title">Panel title</h3></div>
    <div class="panel-body">Panel content</div>
    <div class="panel-footer">Panel footer</div>
</div>
```

# 13 JAVASCRIPT

# 13.1 MODAL (I)



Dialogos modales

## 13.2 MODAL (II)

```
<button class="btn btn-primary btn-lg" data-toggle="modal" data-target="#<br><!-- Launch demo modal --></button>
```

## 13.3 MODAL (III)

```
<div class="modal fade" id="myModal" tabindex="-1" role="dialog"  
aria-labelledby="myModalLabel" aria-hidden="true">  
  <div class="modal-dialog">  
    <div class="modal-content">  
      <div class="modal-header">...</div>  
      <div class="modal-body">...</div>  
      <div class="modal-footer">...</div>  
    </div>  
  </div>  
</div>
```

# 13.4 TABS (I)

Tabs

Home   Profile   Dropdown ▾

---

Food truck fixie locavore, accusamus mcsweeney's marfa nulla single-origin coffee squid. Exercitation +1 labore velit, blog sartorial PBR leggings next level wes anderson artisan four loko farm-to-table craft beer twee. Qui photo booth letterpress, commodo enim craft beer mlkshk aliquip jean shorts ullamco ad vinyl cillum PBR. Homo nostrud organic, assumenda labore aesthetic magna delectus mollit. Keytar helvetica VHS salvia yr, vero magna velit sapiente labore stumptown. Vegan fanny pack odio cillum wes anderson 8-bit, sustainable jean shorts beard ut DIY ethical culpa terry richardson biodiesel. Art party scenester stumptown, tumblr butcher vero sint qui sapiente accusamus tattooed echo park.

Tabs

## 13.5 TABS (II)

```
<ul id="myTab" class="nav nav-tabs" role="tablist">
  <li class="">
    <a href="#home" role="tab" data-toggle="tab">Home</a></li>
  <li class="active">
    <a href="#profile" role="tab" data-toggle="tab">Profile</a></li>
  ...
</ul>
```

## 13.6 TABS (III)

```
<div id="myTabContent" class="tab-content">
  <div class="tab-pane fade" id="home">
    <p>...</p>
  </div>
  <div class="tab-pane fade active in" id="profile">
    <p>...</p>
  </div>
  ...
</div>
```

# 13.7 TOOLTIPS (I)

## Toolips

Tight pants next level keffiyeh [you probably](#) haven't heard of them. Photo booth beard raw denim letterpress vegan messenger bag stumptown. Farm-to-table seitan, mcsweeney's fixie sustainable quinoa 8-bit american apparel [have a](#) terry richardson vinyl chambray. Beard stumptown, cardigans banh mi lomo thundercats. Tofu biodiesel williamsburg marfa, four loko mcsweeney's cleanse vegan chambray. A really ironic artisan [whatever keytar](#), scenester farm-to-table banksy Austin [twitter handle](#) freegan cred raw denim single-origin coffee viral.

[Tooltip on left](#) [Tooltip on top](#) [Tooltip on bottom](#) [Tooltip on right](#) [Tooltip on right](#)

## Toolips

## 13.8 TOOLTIPS (II)

```
<script>
$( document ).ready( function() {
  $('[data-toggle="tooltip"]')
    .tooltip();
});
</script>
```

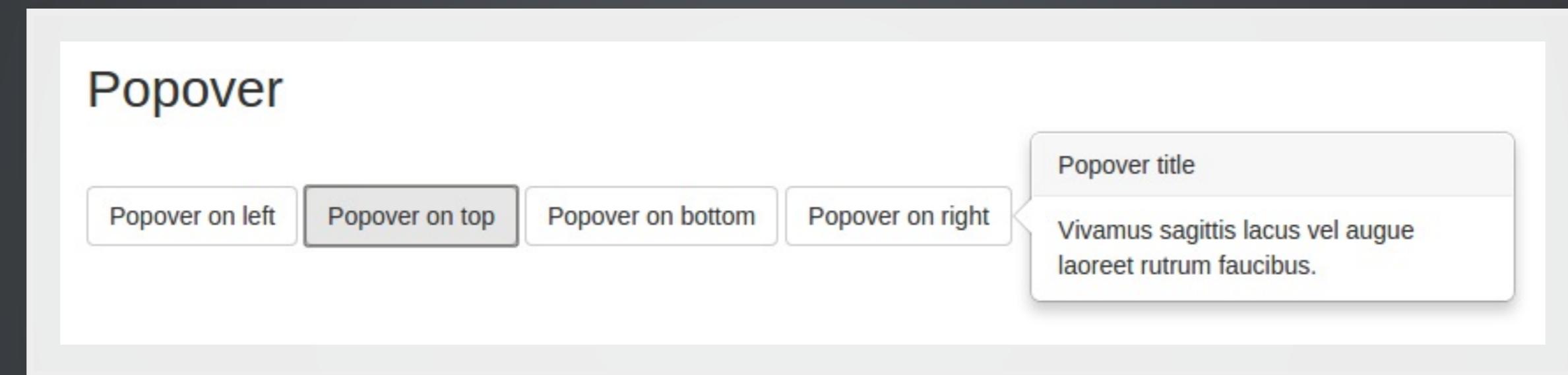
## 13.9 TOOLTIPS (III)

```
<p class="muted">  
    Farm-to-table seitan, mcsweeney's fixie sustainable quinoa 8-bit  
    american apparel  
    <a href="#" data-toggle="tooltip" title="Another tooltip">have a</a>  
    terry richardson vinyl chambray.</p>
```

## 13.10 TOOLTIPS (IV)

```
<button type="button" class="btn btn-default" data-toggle="tooltip"  
data-placement="right" title="Tooltip on right">  
  Tooltip on right</button>
```

# 13.11 POPOVER (I)



Popover

## 13.12 POPOVER (II)

```
<script>
$( document ).ready( function() {
  $('[data-toggle="popover"]')
    .popover();
});
</script>
```

## 13.13 POPOVER (III)

```
<button type="button" class="btn btn-default" title="Popover title"  
data-container="body" data-toggle="popover" data-placement="right"  
data-content="Vivamus sagittis lacus vel augue laoreet rutrum faucibus.  
Popover on right</button>
```

# 13.14 ACCORDION (I)

## Accordion

Collapsible Group Item #1

Collapsible Group Item #2

Anim pariatur cliche reprehenderit, enim eiusmod high life accusamus terry richardson ad squid. 3 wolf moon officia aute, non cupidatat skateboard dolor brunch. Food truck quinoa nesciunt laborum eiusmod. Brunch 3 wolf moon tempor, sunt aliqua put a bird on it squid single-origin coffee nulla assumenda shoreditch et. Nihil anim keffiyeh helvetica, craft beer labore wes anderson cred nesciunt sapiente ea proident. Ad vegan excepteur butcher vice lomo. Leggings occaecat craft beer farm-to-table, raw denim aesthetic synth nesciunt you probably haven't heard of them accusamus labore sustainable VHS.

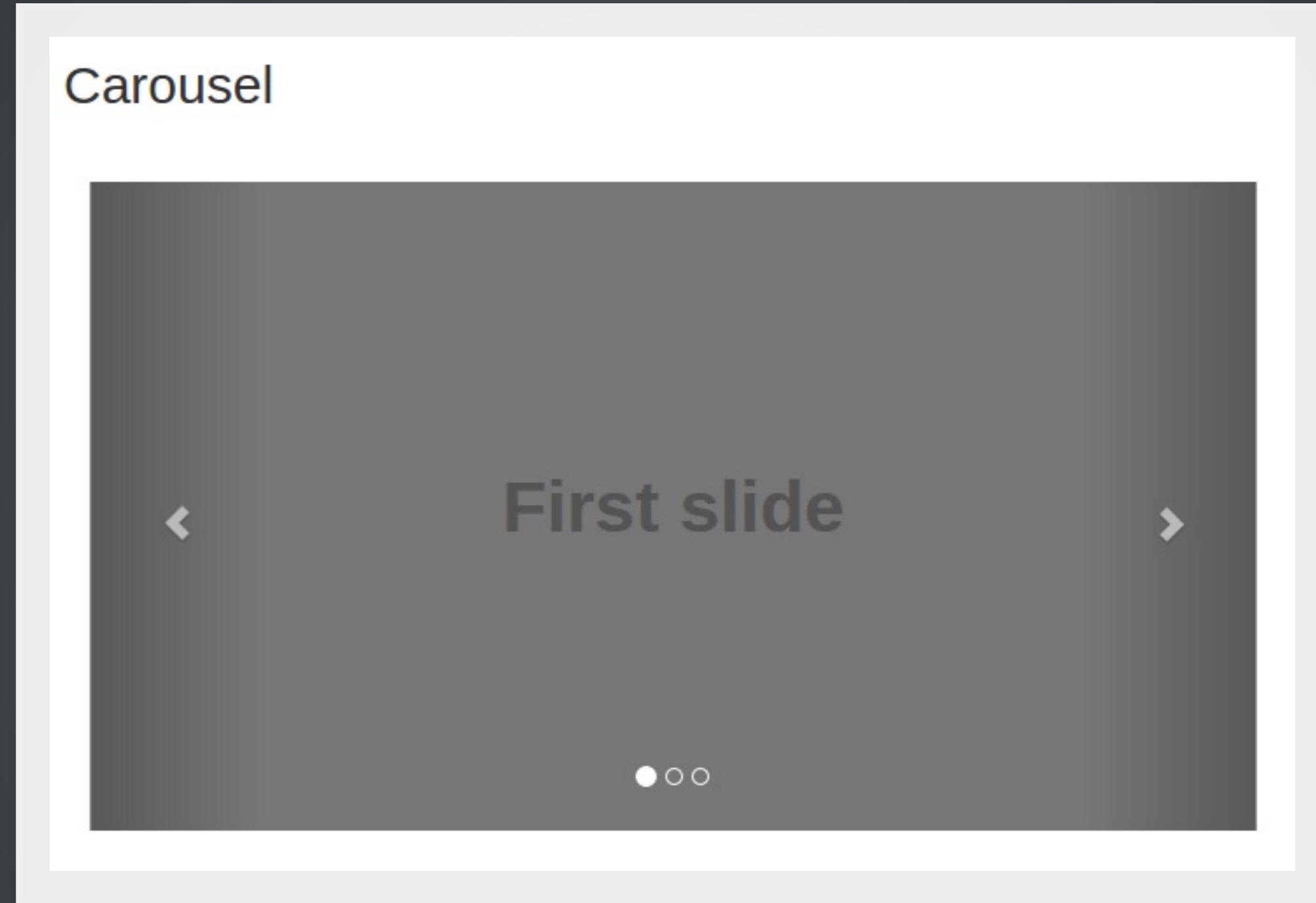
Collapsible Group Item #3

## Accordion

# 13.15 ACCORDION (II)

```
<div class="panel-group" id="accordion">
  <div class="panel panel-default">
    <div class="panel-heading">
      <h4 class="panel-title">
        <a data-toggle="collapse" data-parent="#accordion" href="#collapseOne">
          Group Item #1</a></h4></div>
      <div id="collapseOne" class="panel-collapse collapse in">
        <div class="panel-body">...</div></div>
    </div>
    ...
  </div>
```

# 13.16 CAROUSEL (I)



Carousel

## 13.17 CAROUSEL (II)

```
<div class="container" style="max-width: 900px">
  <div id="carousel-example-generic" class="carousel slide" data-ride="c
    <ol class="carousel-indicators">...</ol>
    <div class="carousel-inner">...</div>
    <a class="left carousel-control" ...</a>
    <a class="right carousel-control" ...</a>
  </div>
</div>
```

## 13.18 CAROUSEL (III)

```
<ol class="carousel-indicators">
  <li data-target="#carousel-example-generic" data-slide-to="0"
      class=""></li>
  <li data-target="#carousel-example-generic" data-slide-to="1"
      class="active"></li>
  <li data-target="#carousel-example-generic" data-slide-to="2"
      class=""></li>
</ol>
```

# 13.19 CAROUSEL (IV)

```
<div class="carousel-inner">
  <div class="item active left">
    
  </div>
  <div class="item next left">
    
  </div>
  <div class="item">
    
  </div>
</div>
```

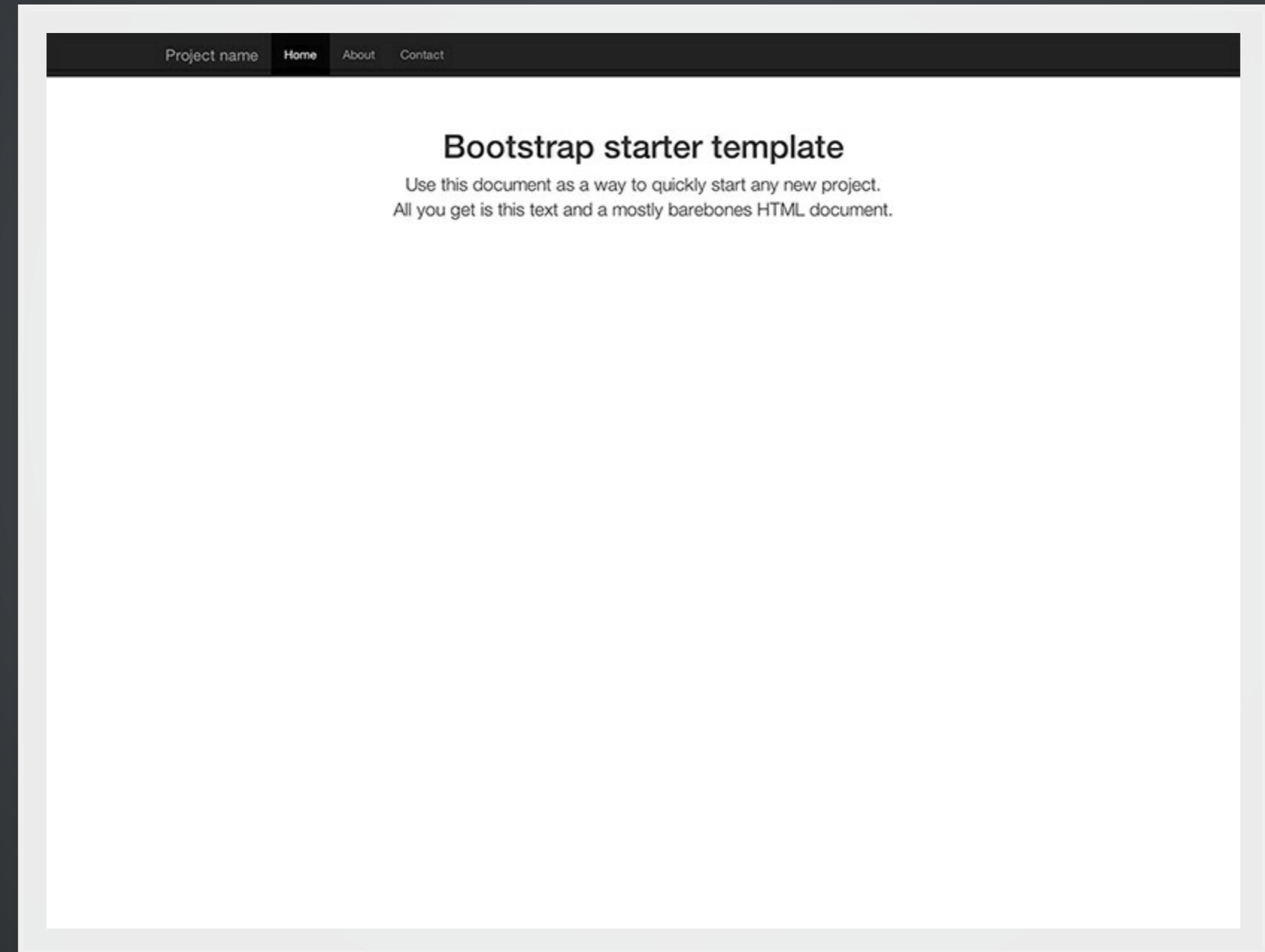
## 13.20 CAROUSEL (V)

```
<a class="left carousel-control" href="#carousel-example-generic"  
    role="button" data-slide="prev">  
    <span class="glyphicon glyphicon-chevron-left"></span>  
</a>  
<a class="right carousel-control" href="#carousel-example-generic"  
    role="button" data-slide="next">  
    <span class="glyphicon glyphicon-chevron-right"></span>  
</a>
```

# 14 EJEMPLOS

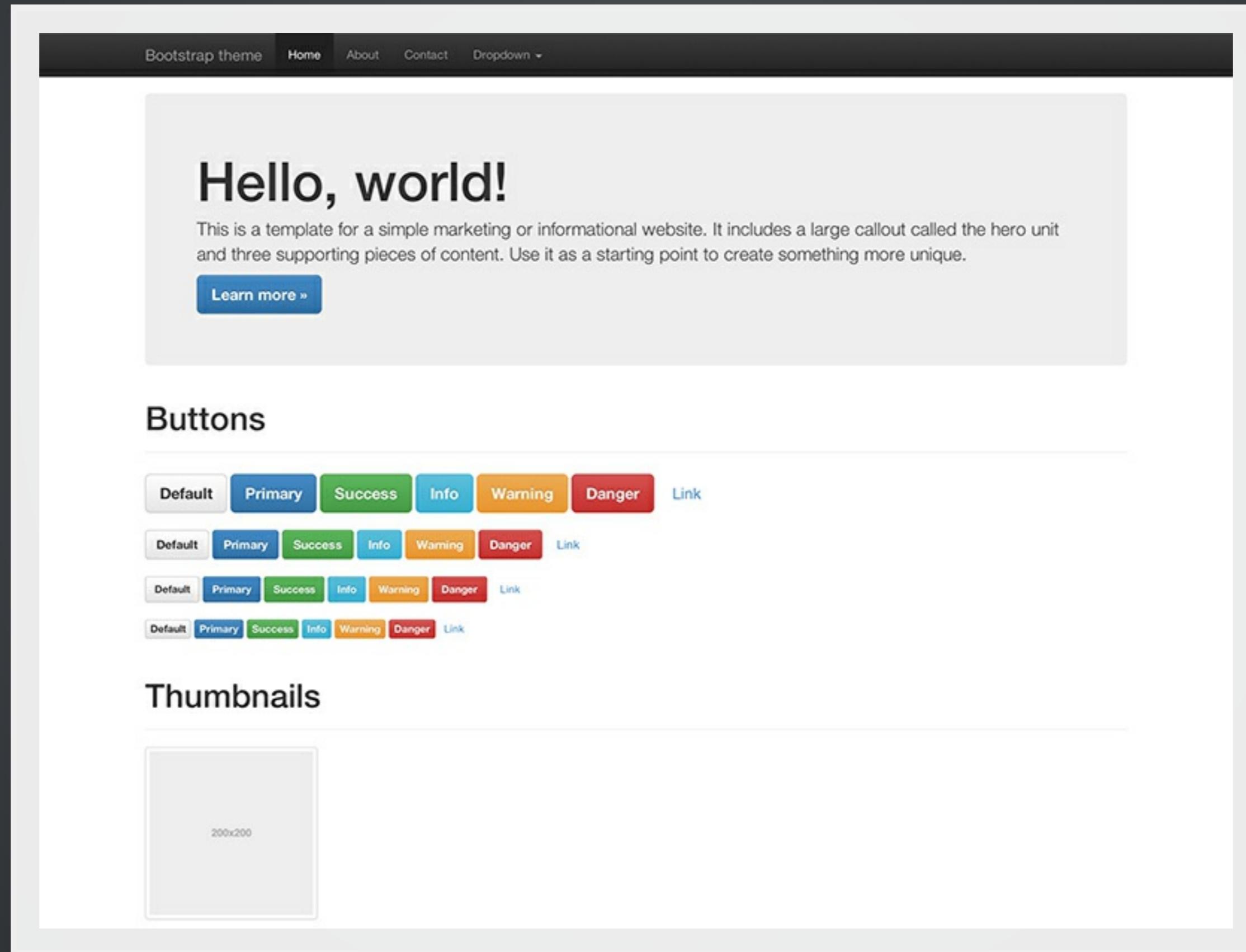
# 14.1 STARTER TEMPLATE

- <http://getbootstrap.com/examples/starter-template>



# 14.2 BOOTSTRAP THEME

- <http://getbootstrap.com/examples/theme>



# 14.3 GRIDS

- <http://getbootstrap.com/examples/grid>

## Bootstrap grid examples

Basic grid layouts to get you familiar with building within the Bootstrap grid system.

---

### Three equal columns

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

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

### Three unequal columns

Get three columns starting at desktops and scaling to large desktops of various widths. Remember, grid columns should add up to twelve for a single horizontal block. More than that, and columns start stacking no matter the viewport.

.col-md-3	.col-md-6	.col-md-3
-----------	-----------	-----------

### Two columns

Get two columns starting at desktops and scaling to large desktops.

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

### Full width, single column

No grid classes are necessary for full-width elements.

---

### Two columns with two nested columns

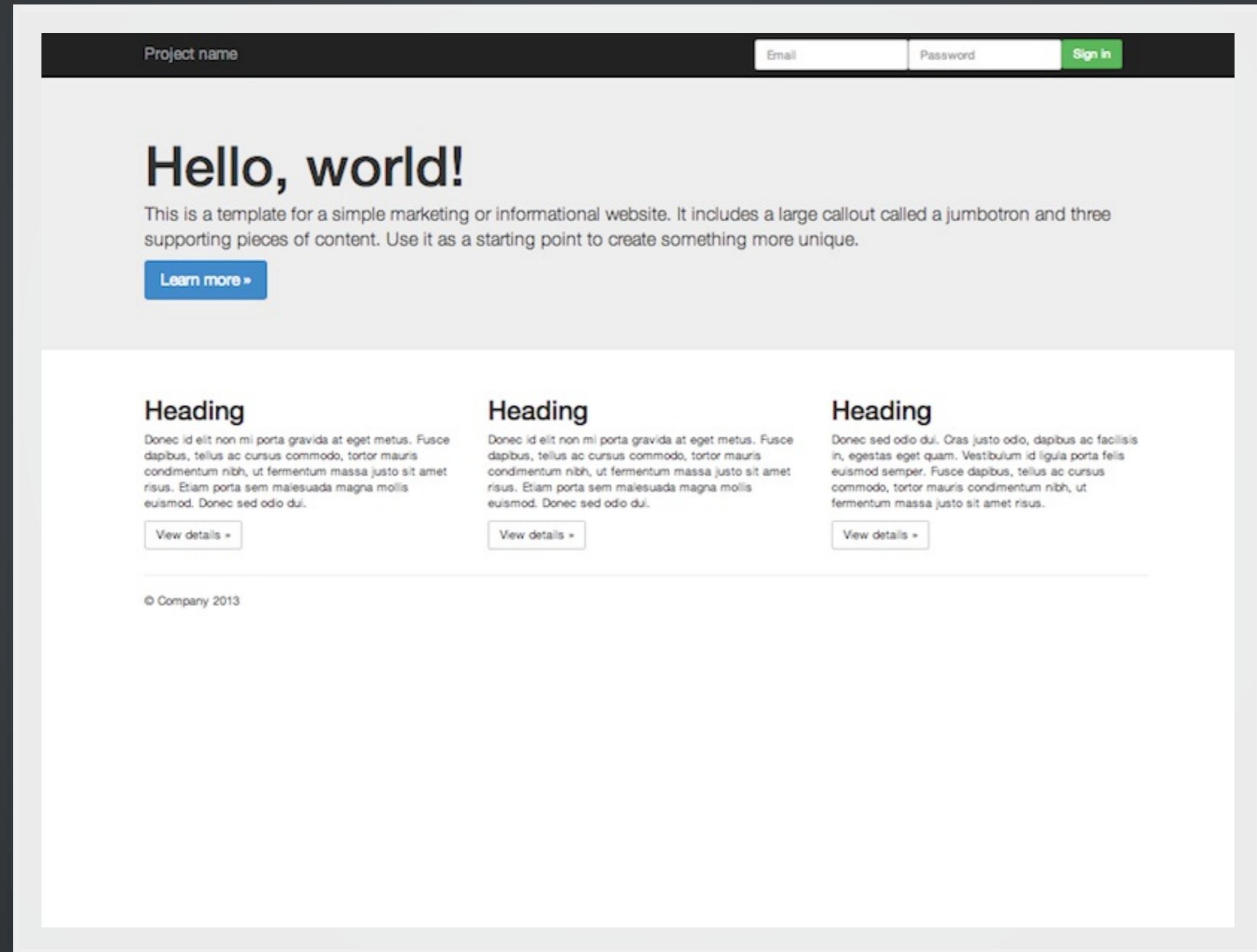
Per the documentation, nesting is easy—just put a row of columns within an existing row. This gives you two columns starting at desktops and scaling to large desktops, with another two (equal widths) within the larger column.

At mobile device sizes, tablets and down, these columns and their nested columns will stack.

.col-md-8	.col-md-4	
.col-md-6	.col-md-6	

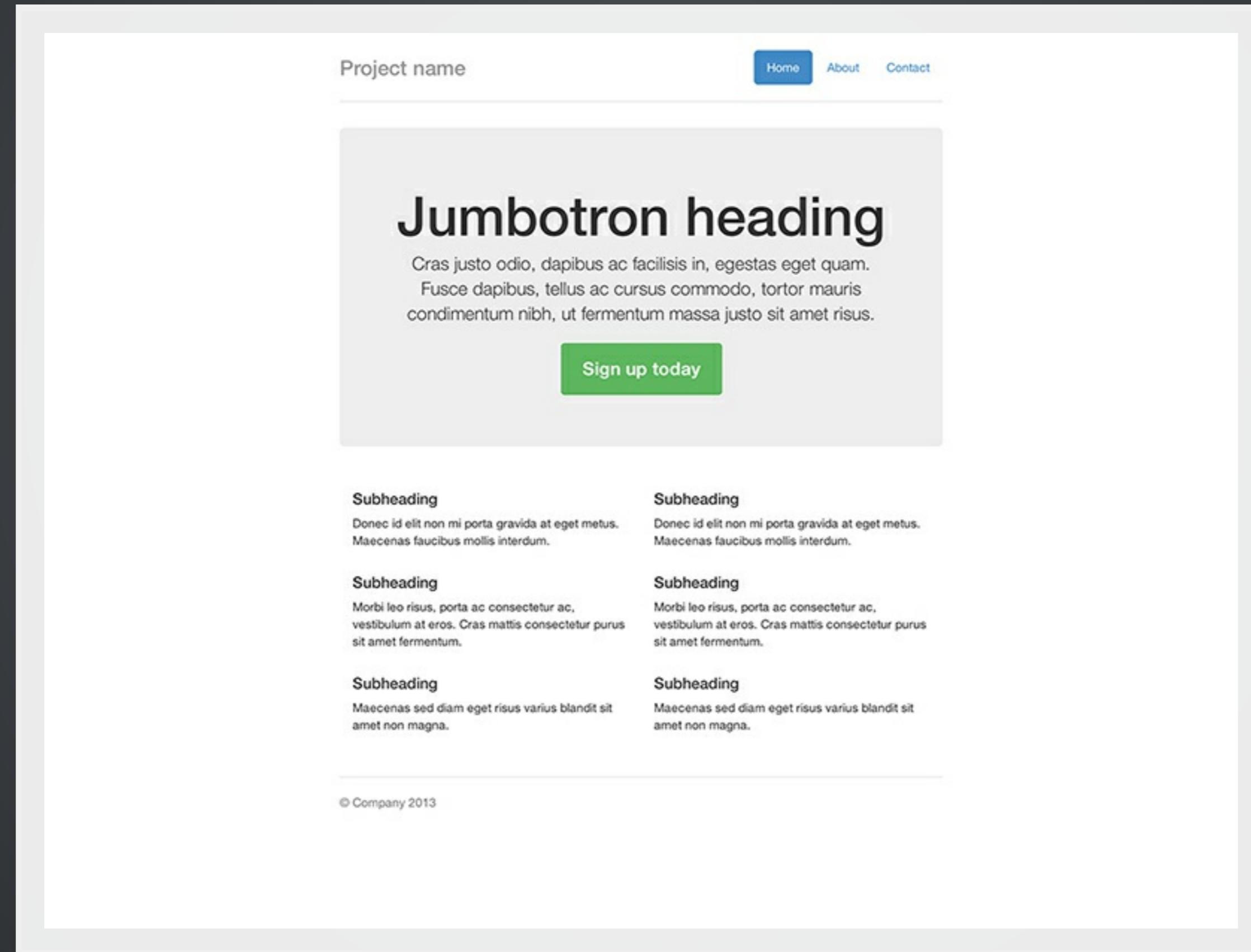
# 14.4 JUMBOTRON

- <http://getbootstrap.com/examples/jumbotron>



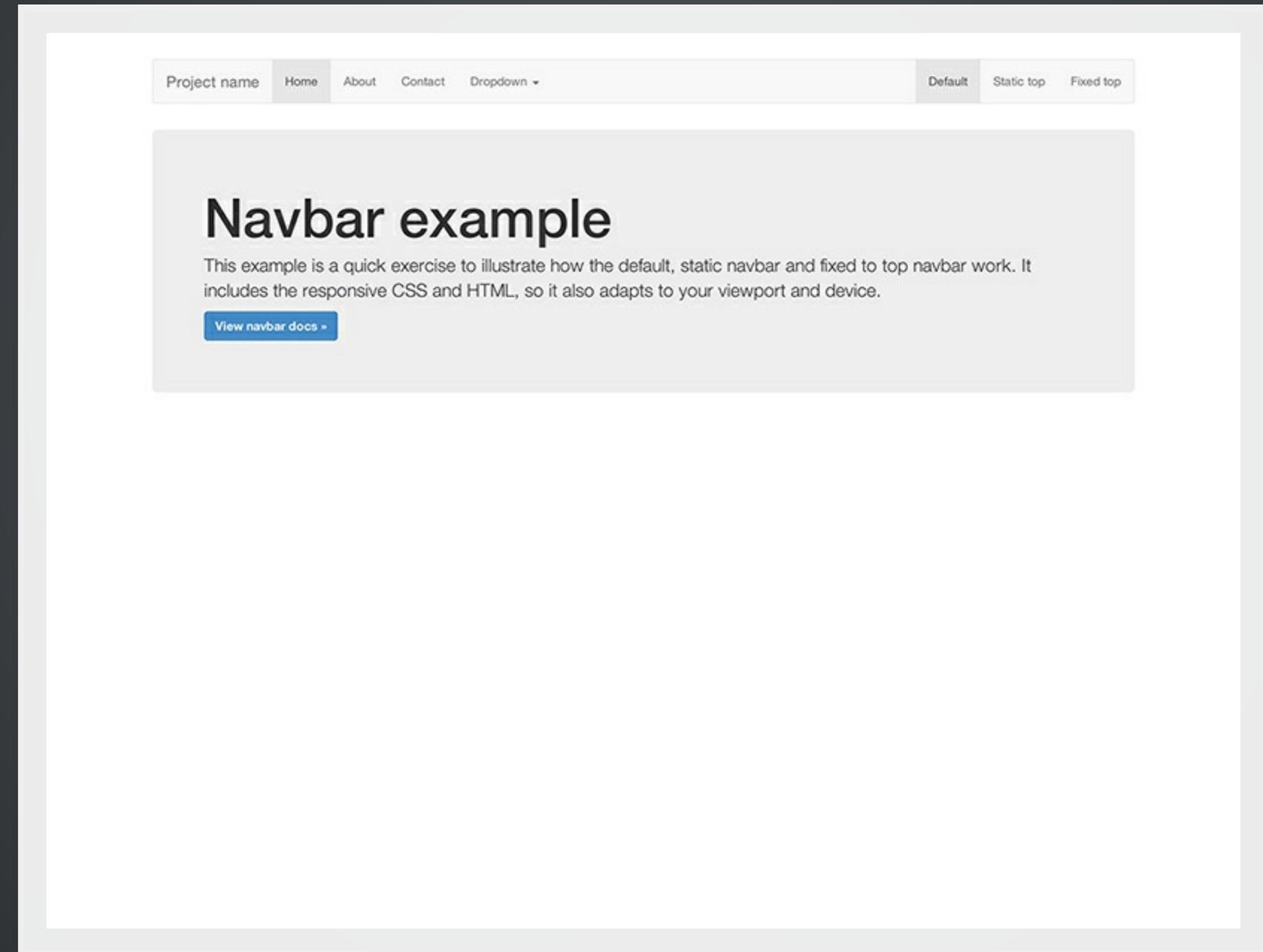
# 14.5 NARROW JUMBOTRON

- <http://getbootstrap.com/examples/jumbotron-narrow>



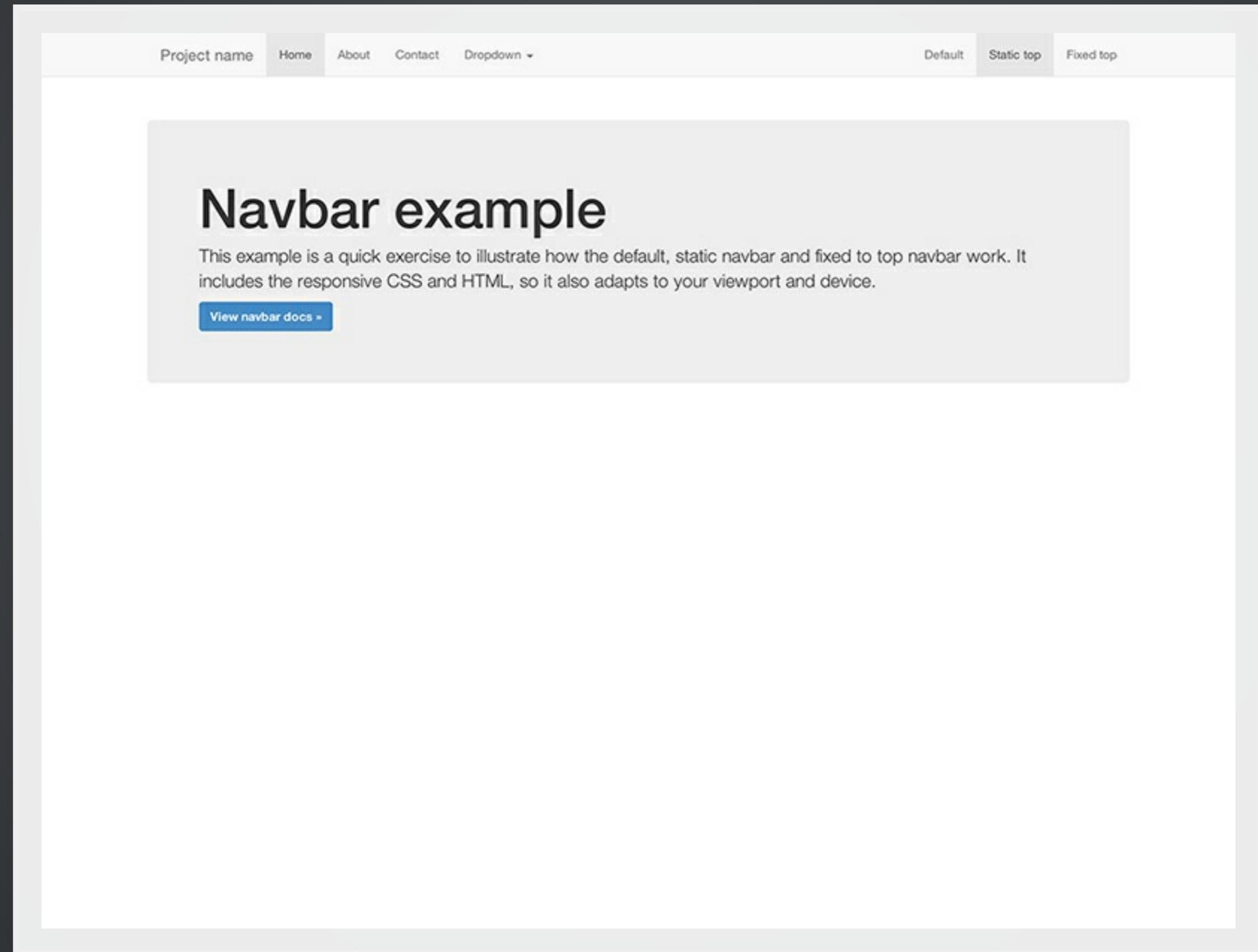
# 14.6 NAVBAR

- <http://getbootstrap.com/examples/navbar>



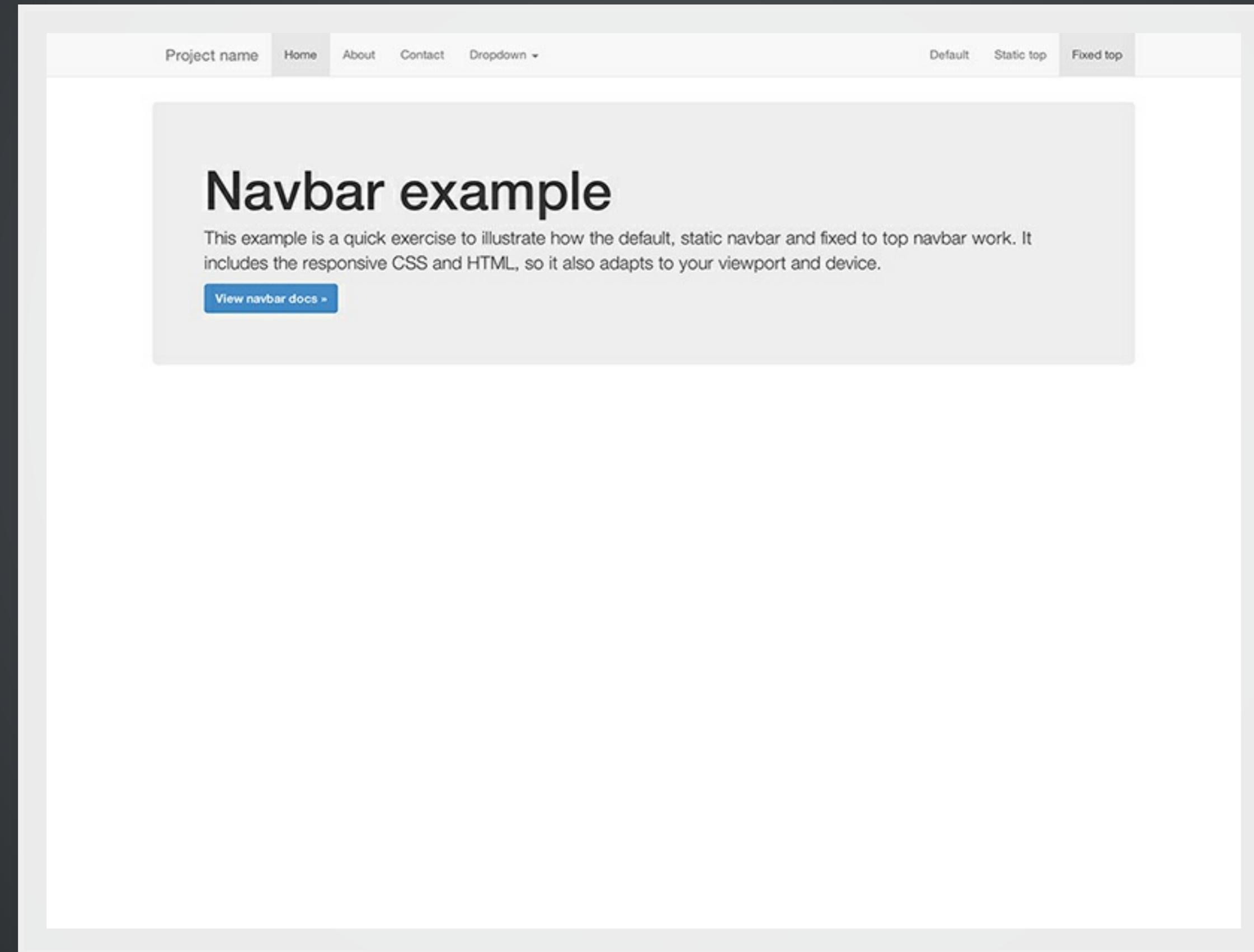
# 14.7 STATIC TOP NAVBAR

- <http://getbootstrap.com/examples/navbar-static-top>



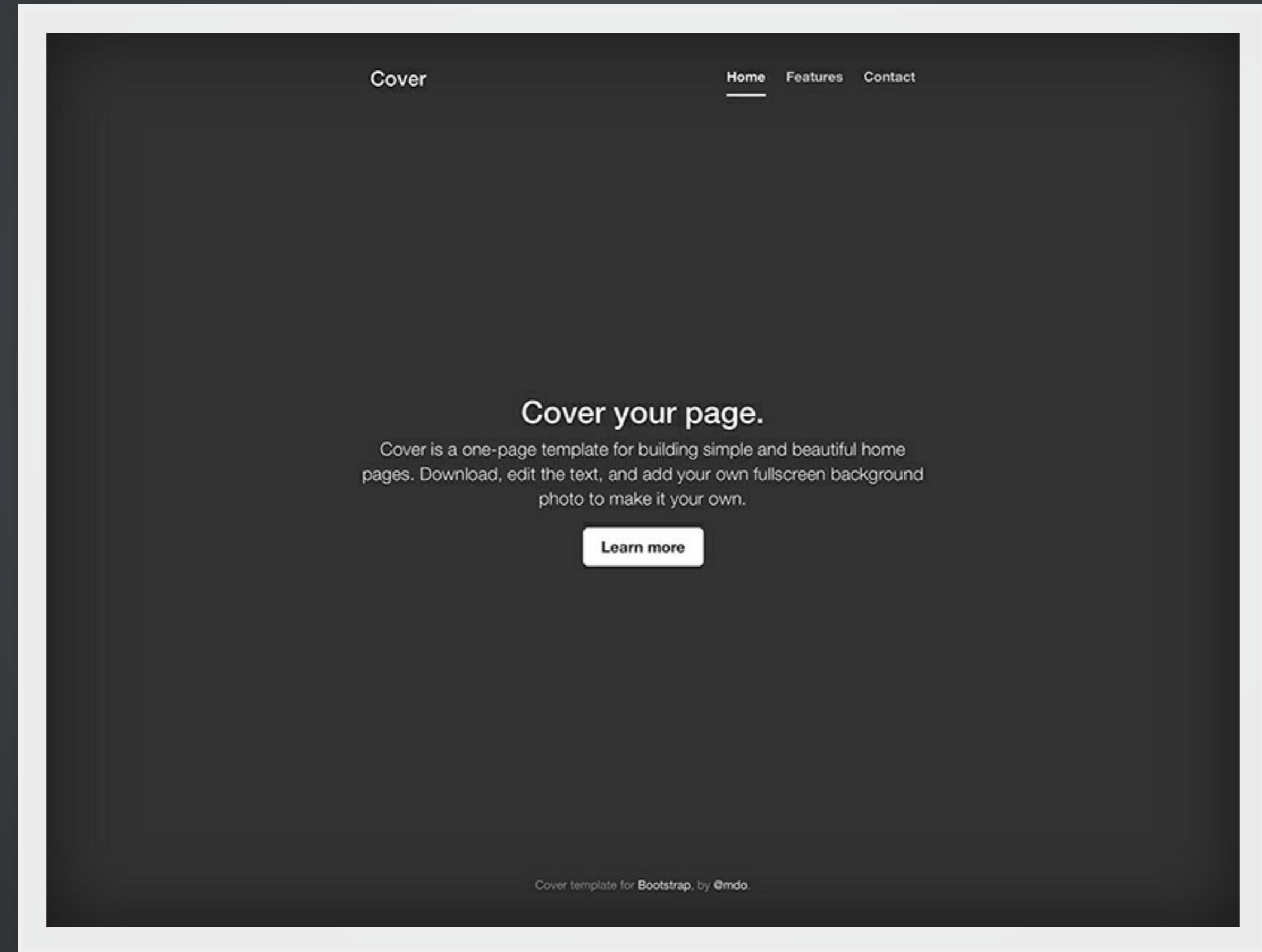
# 14.8 FIXED NAVBAR

- <http://getbootstrap.com/examples/navbar-fixed-top>



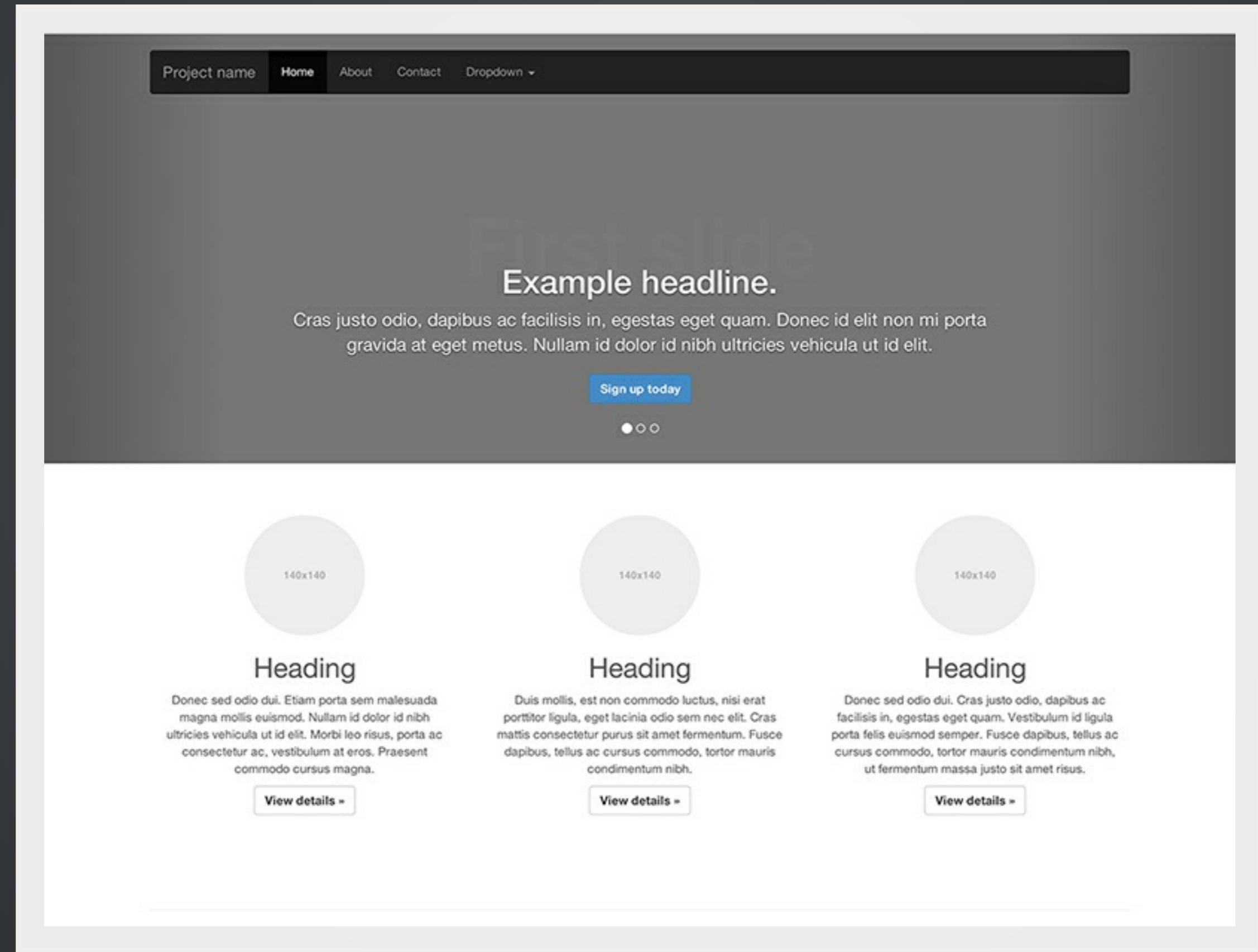
# 14.9 COVER

- <http://getbootstrap.com/examples/cover>



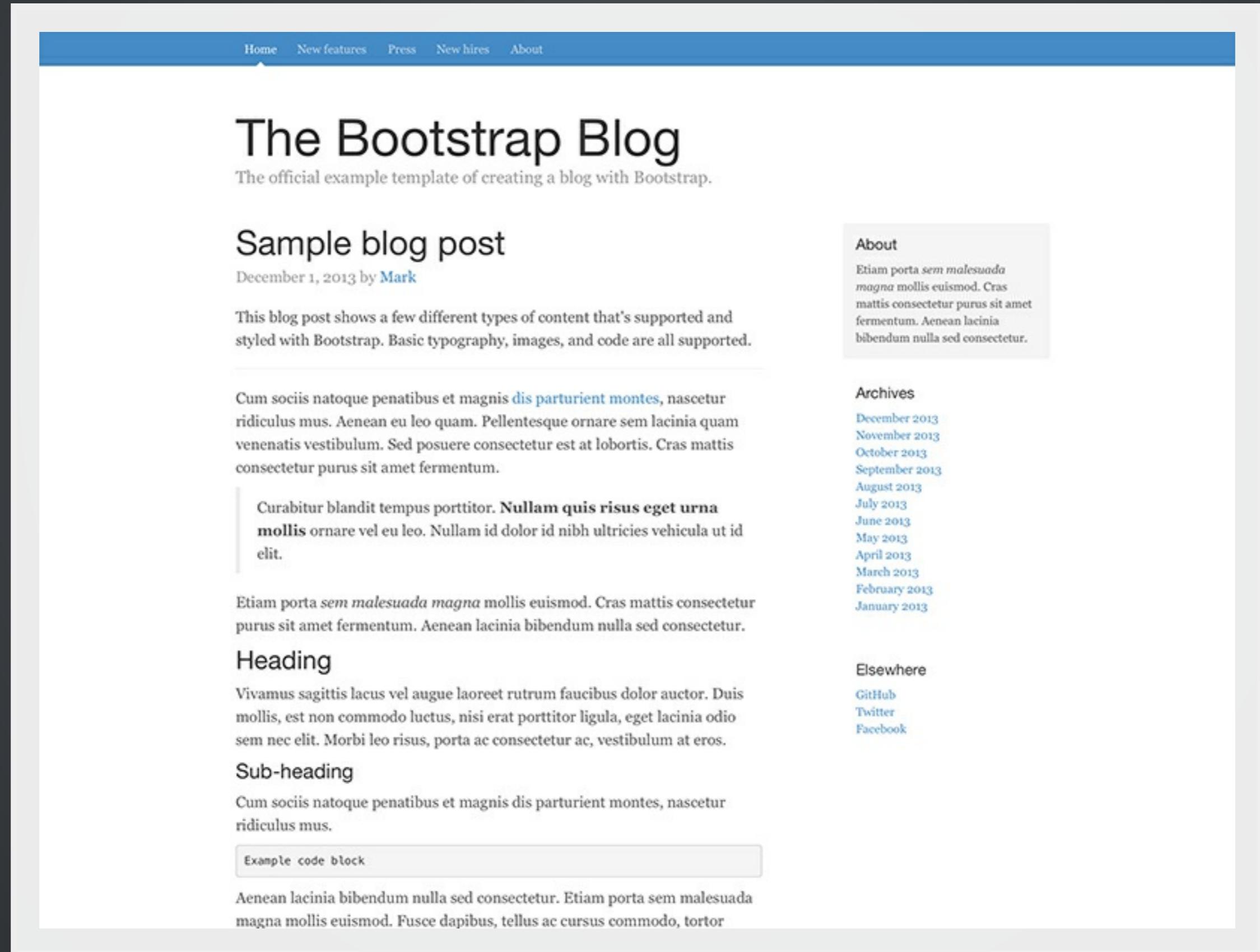
# 14.10 CAROUSEL

- <http://getbootstrap.com/examples/carousel>



# 14.11 BLOG

- <http://getbootstrap.com/examples/blog>



The screenshot shows the official example template for creating a blog with Bootstrap. The top navigation bar includes links for Home, New features, Press, New hires, and About. The main title "The Bootstrap Blog" is prominently displayed, followed by the subtitle "The official example template of creating a blog with Bootstrap." A sample blog post titled "Sample blog post" is shown, dated December 1, 2013, by Mark. The post content includes several paragraphs of text, a code block, and a sub-heading. To the right, there are two sidebar boxes: "About" and "Archives". The "About" box contains placeholder text. The "Archives" box lists months from December 2013 down to January 2013. Below the sidebar is an "Elsewhere" section with links to GitHub, Twitter, and Facebook.

Home   New features   Press   New hires   About

# The Bootstrap Blog

The official example template of creating a blog with Bootstrap.

## Sample blog post

December 1, 2013 by [Mark](#)

This blog post shows a few different types of content that's supported and styled with Bootstrap. Basic typography, images, and code are all supported.

Cum sociis natoque penatibus et magnis [dis parturient montes](#), nascetur ridiculus mus. Aenean eu leo quam. Pellentesque ornare sem lacinia quam venenatis vestibulum. Sed posuere consectetur est at lobortis. Cras mattis consectetur purus sit amet fermentum.

Curabitur blandit tempus porttitor. **Nullam quis risus eget urna mollis** ornare vel eu leo. Nullam id dolor id nibh ultricies vehicula ut id elit.

Etiam porta *sem malesuada magna* mollis euismod. Cras mattis consectetur purus sit amet fermentum. Aenean lacinia bibendum nulla sed consectetur.

### Heading

Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Duis mollis, est non commodo luctus, nisi erat porttitor ligula, eget lacinia odio sem nec elit. Morbi leo risus, porta ac consectetur ac, vestibulum at eros.

#### Sub-heading

Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

Example code block

Aenean lacinia bibendum nulla sed consectetur. Etiam porta *sem malesuada magna* mollis euismod. Fusce dapibus, tellus ac cursus commodo, tortor

**About**

*Etiam porta sem malesuada magna mollis euismod. Cras mattis consectetur purus sit amet fermentum. Aenean lacinia bibendum nulla sed consectetur.*

**Archives**

[December 2013](#)  
[November 2013](#)  
[October 2013](#)  
[September 2013](#)  
[August 2013](#)  
[July 2013](#)  
[June 2013](#)  
[May 2013](#)  
[April 2013](#)  
[March 2013](#)  
[February 2013](#)  
[January 2013](#)

**Elsewhere**

[GitHub](#)  
[Twitter](#)  
[Facebook](#)

# 14.12 DASHBOARD

- <http://getbootstrap.com/examples/dashboard>

Project name

Search... Dashboard Settings Profile Help

Overview

Reports

Analytics

Export

Nav item

Nav item again

One more nav

Another nav item

More navigation

Nav item again

One more nav

Another nav item

Dashboard

200x200

200x200

200x200

200x200

Label  
Something else

Label  
Something else

Label  
Something else

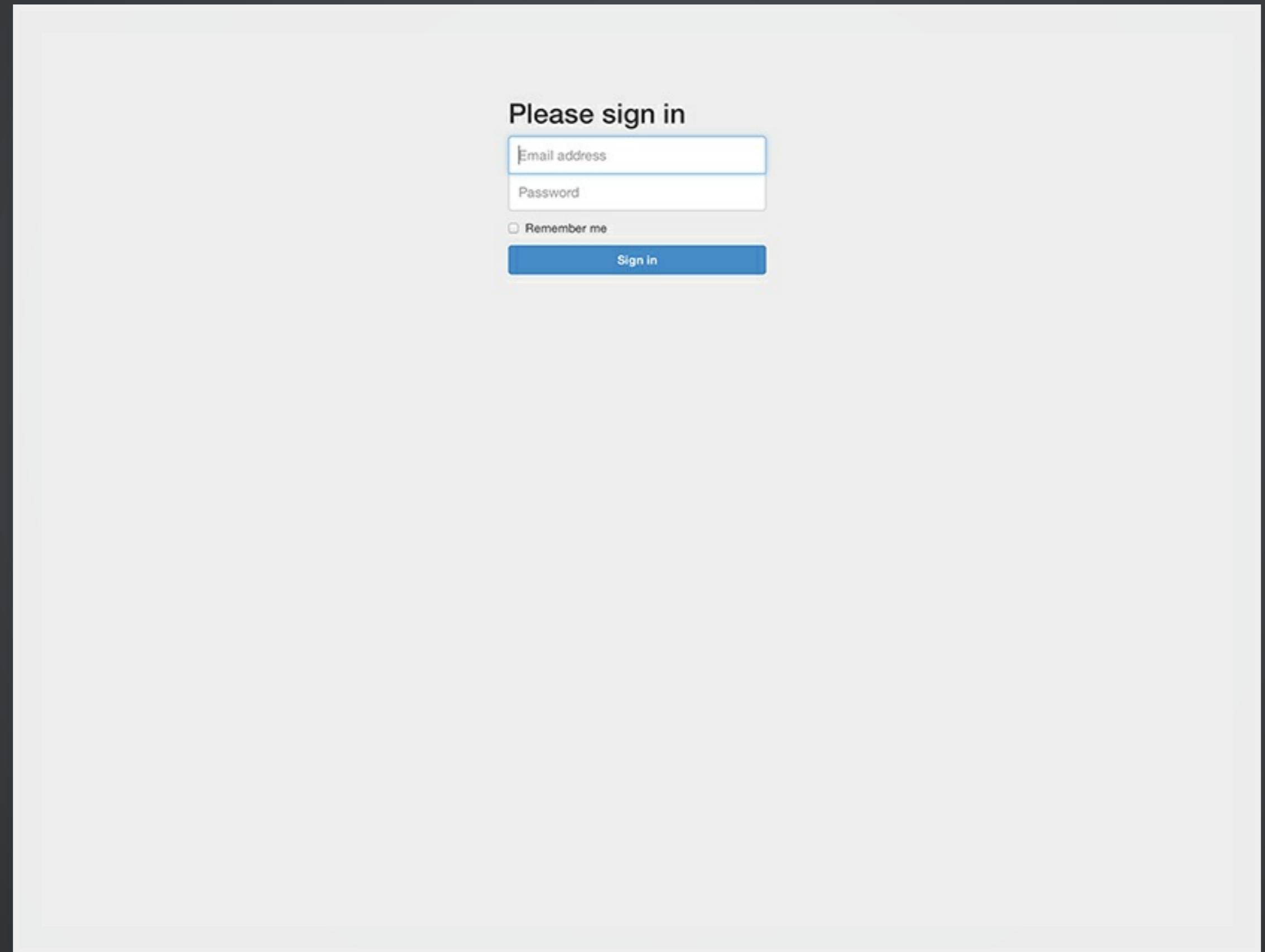
Label  
Something else

Section title

#	Header	Header	Header	Header
1,001	Lorem	ipsum	dolor	sit
1,002	amet	consectetur	adipiscing	elit
1,003	Integer	nec	odio	Praesent
1,003	libero	Sed	cursus	ante
1,004	dapibus	diam	Sed	ni
1,005	Nulla	quis	sem	at
1,006	nibh	elementum	imperdiet	Duis
1,007	sagittis	ipsum	Praesent	mauris
1,008	Fusce	nec	tellus	sed
1,009	augue	semper	porta	Mauris
1,010	massa	Vestibulum	lacinia	arcu
1,011	eg	nulla	Class	aptent
1,012	taciti	sociosqu	ad	litora

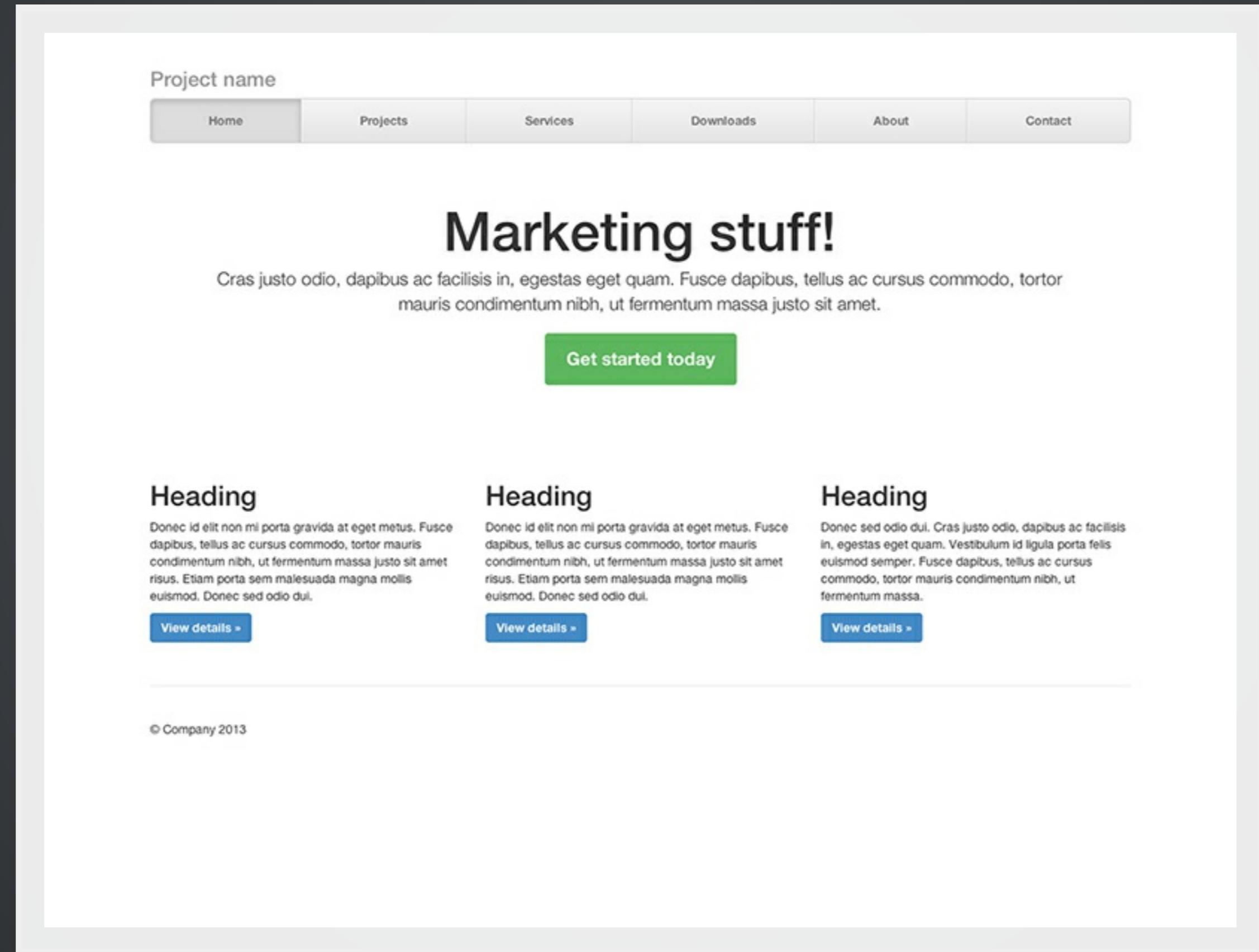
# 14.13 SIGN-IN PAGE

- <http://getbootstrap.com/examples/signin>



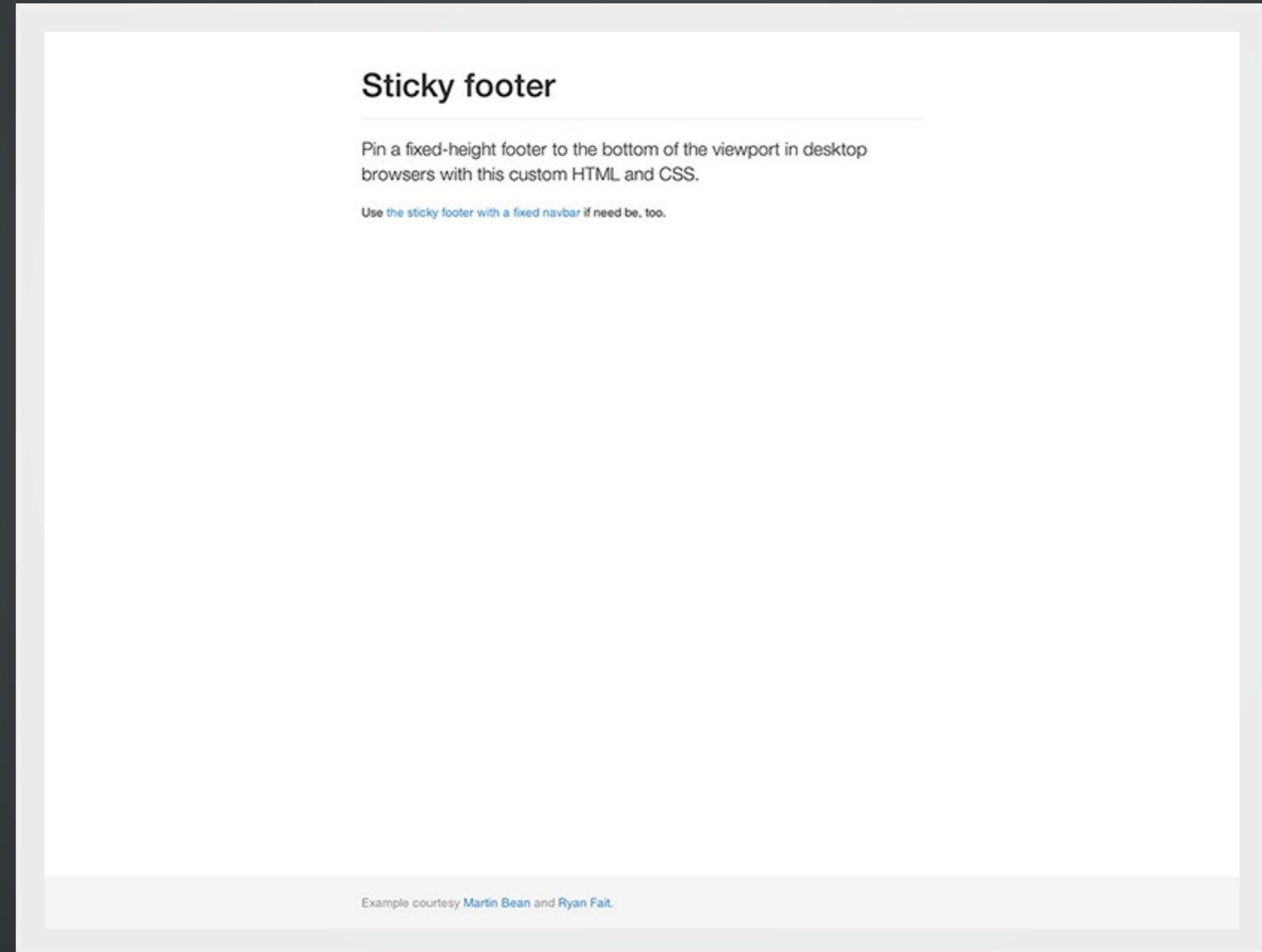
# 14.14 JUSTIFIED NAV

- <http://getbootstrap.com/examples/justified-nav>



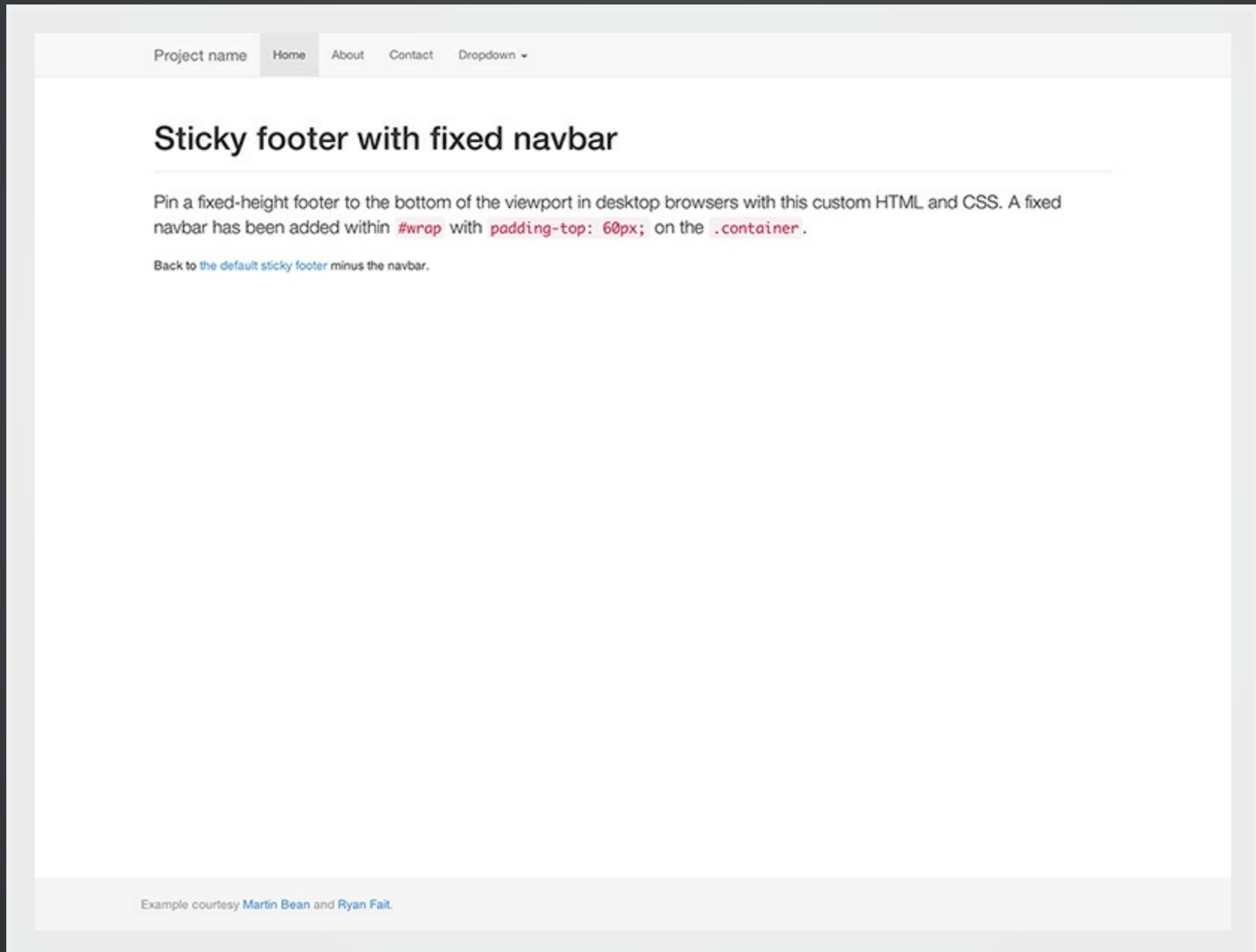
# 14.15 STICKY FOOTER

- <http://getbootstrap.com/examples/sticky-footer>



# 14.16 STICKY FOOTER WITH NAVBAR

- <http://getbootstrap.com/examples/sticky-footer-navbar>



# 14.17 NON-RESPONSIVE BOOTSTRAP

- <http://getbootstrap.com/examples/non-responsive>

The screenshot shows a web page titled "Non-responsive Bootstrap". At the top, there is a navigation bar with links: "Project name" (highlighted in grey), "Home", "About", "Contact", "Dropdown", and three "Link" buttons. Below the navigation, the main content area has a heading "Non-responsive Bootstrap" and a sub-section "What changes" with a note about the lack of a meta viewport tag. It also includes sections for "Regarding navbars" and "Non-responsive grid system" with a three-column grid.

Project name Home About Contact Dropdown Link Link Link

## Non-responsive Bootstrap

Disable the responsiveness of Bootstrap by fixing the width of the container and using the first grid system tier.

### What changes

Note the lack of the `<meta name="viewport" content="width=device-width, initial-scale=1.0">`, which disables the zooming aspect of sites in mobile devices. In addition, we reset our container's width and are basically good to go.

### Regarding navbars

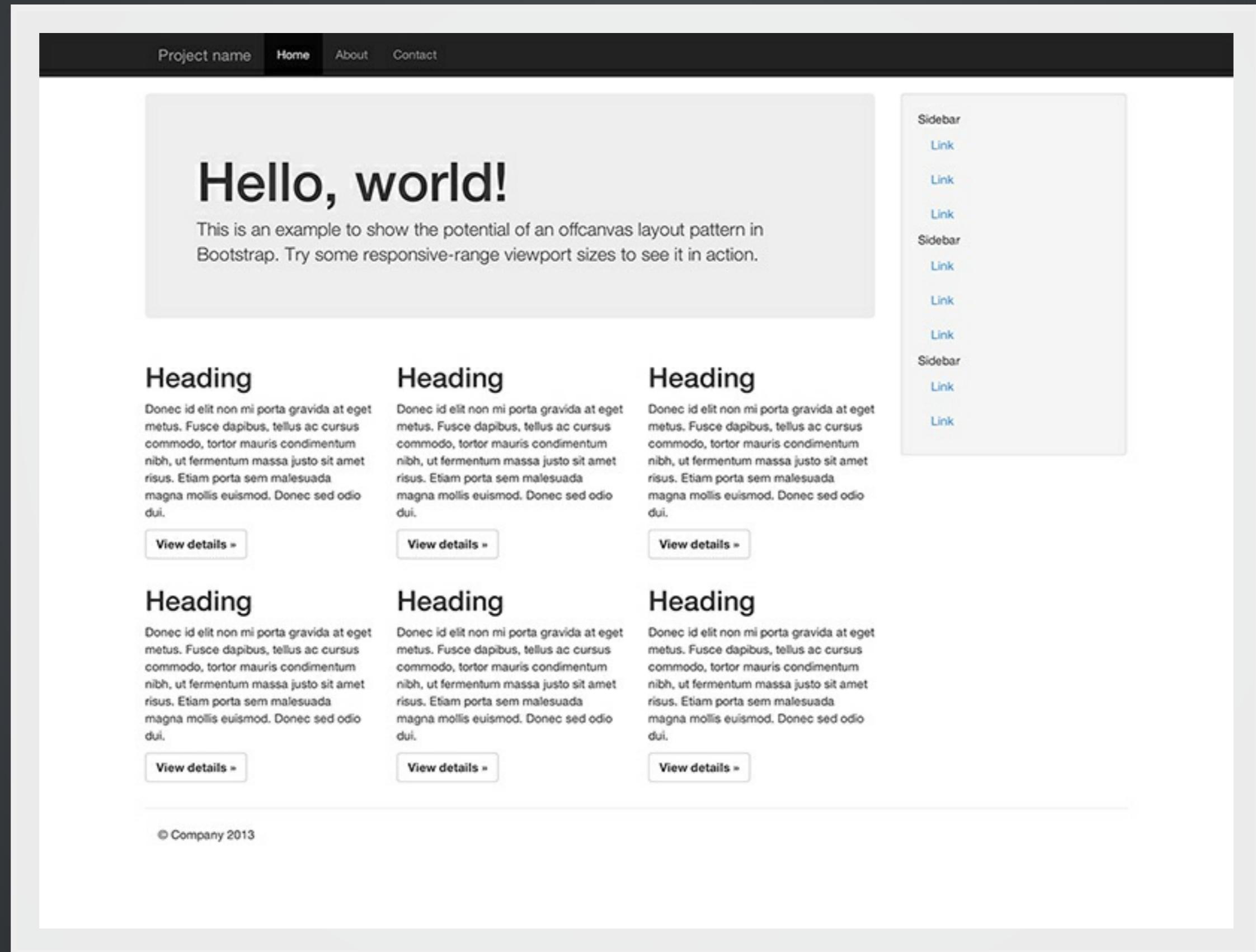
As a heads up, the navbar component is rather tricky here in that the styles for displaying it are rather specific and detailed. Overrides to ensure desktop styles display are not as performant or sleek as one would like. Just be aware there may be potential gotchas as you build on top of this example when using the navbar.

### Non-responsive grid system

One third	One third	One third
-----------	-----------	-----------

# 14.18 OFFCANVAS

- <http://getbootstrap.com/examples/offcanvas>



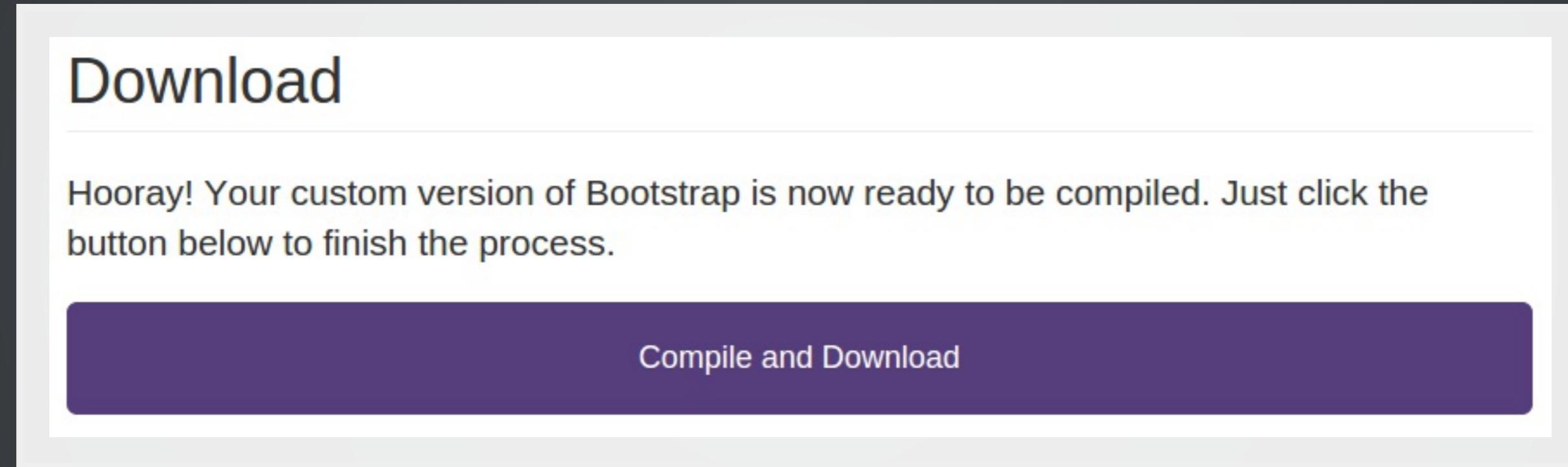
# 15 PERSONALIZACIÓN

## 15.1 TU PROPIO CSS

- Una forma de personalizar tu página web hecha con bootstrap, es **añadiendo un fichero CSS, después de las llamadas a los CSS de bootstrap** (para que sobrescriba los valores)
- Esta es una forma muy manual y muy poco productiva.

## 15.2 PÁGINA CUSTOMIZE

- Desde la página web de bootstrap <http://getbootstrap.com/customize> se pueden personalizar un montón de variables, y descargar una versión personalizada de bootstrap.



Personalizar desde la página web de bootstrap

- Esta forma es más productiva, pero **sigue siendo bastante manual**, y además no puedes tener un control de cambios eficiente.

## 15.3 COMPIALAR LESS

- La forma **más productiva y eficiente** de personalizar bootstrap es compilando los ficheros LESS del core a CSS.

# 16 ACERCA DE

# 16.1 LICENCIA

- Estas transparencias están hechas con:
  - MarkdownSlides:  
<https://github.com/asanzdiego/markdownslides>
- Estas transparencias están bajo una licencia Creative Commons Reconocimiento-CompartirIgual 3.0:
  - <http://creativecommons.org/licenses/by-sa/3.0/es>

## 16.2 FUENTES

- Transparencias:
  - <https://github.com/asanzdiego/curso-interfaces-web-2016/tree/master/05-bootstrap/05-bootstrap-3.0/slides>
- Ejercicios:
  - <https://github.com/asanzdiego/curso-interfaces-web-2016/tree/master/05-bootstrap/05-bootstrap-3.0/src>

## 16.3 BIBLIOGRAFÍA

- Página oficial de Bootstrap:
  - <http://getbootstrap.com>
- Bootstrap sí, pero no
  - <http://bruno.garciaechevaray.com/Bootstrap.The.Meleo/pre>
- Ventajas y desventajas de usar Bootstrap
  - <http://jorgelessin.com/ventajas-y-desventajas-de-usar-boot>