

BOOTSTRAP

Easy Web design and Development



B

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OVERVIEW

- Bootstrap is a front-end library to design websites
- Free and open-source
- Released in 2011
- Originally called “Twitter Blueprint”
 - Created by Mark Otto and Jacob Thornton
 - Intended as a consistent framework for Twitter’s internal tools
- The 2nd most starred project on GitHub
 - More than 125000 stars



DESIGN

- Contains HTML and CSS design templates
 - Buttons, forms, inputs, sliders, progress bars, menus, navigation, and many more
- Focuses on the design of the website
 - Additional JavaScript functionality, themes, and widgets are available through extensions
- Allows easy and quick setup of a website without having to redesign everything
- Has become one of the de-facto standards for web design
 - Has replaced jQuery UI to an extend
- Bootstrap is responsive
 - One website for both desktop and mobile

DESIGN

Project name

Home Projects Services Downloads About Contact

Marketing stuff!

Cras justo odio, dapibus ac facilisis in, egestas eget quam. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet.

Get started today

Heading

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

[View details >](#)

Heading

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[View details >](#)

Heading

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[View details >](#)

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DESIGN

Bootstrap theme [Home](#) [About](#) [Contact](#) [Dropdown](#)

Hello, world!

This is a template for a simple marketing or informational website. It includes a large callout called the hero unit and three supporting pieces of content. Use it as a starting point to create something more unique.

[Learn more »](#)

Buttons

Default Primary Success Info Warning Danger Link

Thumbnails

DESIGN

SB Admin

Dashboard

Charts

Tables

Forms

Bootstrap Elements

Bootstrap Grid

Dropdown

Blank Page

RTL Dashboard

Dashboard Statistics Overview

Dashboard

Like SB Admin? Try out [SB Admin 2](#) for additional features! ×

 26 New Comments!

[View Details](#) +

 12 New Tasks!

[View Details](#) +

 124 New Orders!

[View Details](#) +

 13 Support Tickets!

[View Details](#) +

Area Chart



The chart displays two stacked areas. The top area is green and shows a peak around the 25,000 mark. The bottom area is blue and follows a similar but slightly lower path. The Y-axis has major ticks at 15,000, 22,500, and 30,000.

WHO USES BOOTSTRAP

- NASA
- FIFA and NBA
- Walmart
- Microsoft VS
- Bloomberg
- Trakt
- Spotify
- Some US states
- Many more

INSTALLATION

- Just download the ZIP from their website and extract it
- Two directories with JS and CSS files
- Include them in your HTML files
 - Use the minified versions to save bandwidth
- Alternatively, you can directly include the files from the CDN
 - Files are cached and faster to access
- Bootstrap also has nice documentation and examples on their website

<https://getbootstrap.com>

RESPONSIVENESS

- Responsive design adapts to the screen size
- Reduces scrolling and navigation, and uses flexi containers
- Add a viewport to the HTML head

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

CONTAINERS

- Bootstrap also requires a containing element to wrap site contents
 - These are typically flex containers allowing for adaptive resizing to the screen size
- There are two container classes to choose from
 - The `container` class provides a responsive fixed width container
 - The `container-fluid` provides a full width container, spanning the entire width of the viewport

GRIDS

- Bootstrap works with a grid system of 12 columns
- These columns can be combined to make larger columns
- Understanding Bootstraps grid system is fundamental to getting the most out of the framework
- There are four basic classes for the grid system
 - xs (extra small, eg for phones)
 - sm (small, eg for tablets)
 - md (medium, eg for tablets)
 - lg (large, eg for desktops)
 - xl (extra large, eg for desktops)

GRIDS

```
<div class="row">
    <div class="col-*-*"></div>
</div>
<div class="row">
    <div class="col-*-*"></div>
    <div class="col-*-*"></div>
    <div class="col-*-*"></div>
</div>
```

- The first * specifies the class, eg xs
- The second * specifies the number of columns the row must span
- Since flexboxes are available in CSS3, various combinations can be used
 - Full specification: col-md-4
 - Flexible specification: col, col-md, col-4, col-lg-auto, many more combinations

TABLES

- Bootstrap supports a number of tables with different layouts
- `table`
 - Adds light padding and only horizontal dividers
- `table-striped`
 - Adds zebra-stripes to a table, odd rows have one color, even rows another color
- `table-bordered`
 - Adds borders on all sides of the table and cells
- `table-hover`
 - Enables a hover state on table rows

TABLES

Show 10 entries		Search:						
Name	Position	Office	Age	Start date	Salary			
Tatyana Fitzpatrick	Regional Director	London	19	2010/03/17	\$385,750			
Shou Itou	Regional Marketing	Tokyo	20	2011/08/14	\$163,000			
Lael Greer	Systems Administrator	London	21	2009/02/27	\$103,500			
Caesar Vance	Pre-Sales Support	New York	21	2011/12/12	\$106,450			
Cedric Kelly	Senior Javascript Developer	Edinburgh	22	2012/03/29	\$433,060			
Quinn Flynn	Support Lead	Edinburgh	22	2013/03/03	\$342,000			
Gavin Cortez	Team Leader	San Francisco	22	2008/10/26	\$235,500			
Sonya Frost	Software Engineer	Edinburgh	23	2008/12/13	\$103,600			
Doris Wilder	Sales Assistant	Sidney	23	2010/09/20	\$85,600			
Prescott Bartlett	Technical Author	London	27	2011/05/07	\$145,000			
Name	Position	Office	Age	Start date	Salary			
Showing 1 to 10 of 57 entries								
Previous		1	2	3	4	5	6	Next

TABLES

Bootstrap Table Examples

[Learn more »](#)

x Delete

	Item ID	Item Name	Item Price	Item Operate
	5	Item 5	\$5	
	15	Item 15	\$15	
	25	Item 25	\$25	
	35	Item 35	\$35	
	45	Item 45	\$45	
	50	Item 50	\$50	
	51	Item 51	\$51	
	52	Item 52	\$52	
	53	Item 53	\$53	
	54	Item 54	\$54	

Showing 1 to 10 of 233 rows rows per page

...

TABLES

Search

↻⤒☰

<input type="checkbox"/>	Item ID	Product Name ▾	Actual Price	Discount Price	Stock Available
<input type="checkbox"/>	129	Super Pump	4450.0000	2350.0000	
<input type="checkbox"/>	143	Pro V60	5300.0000	3950.0000	
<input type="checkbox"/>	157	Nano Vapor Perf 1.23lb	4300.0000	0.0000	15
<input type="checkbox"/>	127	Myofusion 5Lbs	7400.0000	4600.0000	
<input type="checkbox"/>	128	Myofusion 10Lbs	13000.0000	8400.0000	
<input type="checkbox"/>	160	MuscleTech Whey 5 Lbs	6200.0000	3850.0000	
<input type="checkbox"/>	159	MuscleTech Phase 8 10Lbs	8500.0000	7500.0000	
<input checked="" type="checkbox"/>	163	MuscleTech NeurCore	2500.0000	0.0000	15
<input checked="" type="checkbox"/>	164	MuscleTech Hydroxycut 110	3600.0000	1000.0000	15
<input type="checkbox"/>	165	MuscleTech Celltech 6 lbs	4350.0000	0.0000	15

Showing 1 to 10 of 39 rows10 ▾records per page<<<1234>>>

TABLES

Basic	Starter	Professional	Business
\$25/mo	\$30/mo	\$50/mo <small>Hot Deal!</small>	\$40/mo
Checkout what you get below	Checkout what you get below	Checkout what you get below	Checkout what you get below
2 Domain Names	2 Domain Names	2 Domain Names	2 Domain Names
5 MySql Databases	5 MySql Databases	5 MySql Databases	5 MySql Databases
10 Email Accounts	10 Email Accounts	10 Email Accounts	10 Email Accounts
20GB of Space	20GB of Space	20GB of Space	20GB of Space
Unlimited Bandwidth	Unlimited Bandwidth	Unlimited Bandwidth	Unlimited Bandwidth
SIGN-UP	BUY NOW	BEST DEAL	FREE TRIAL
Basic	Starter	Professional	Business
\$25/mo	\$30/mo	\$50/mo <small>Hot Deal!</small>	\$40/mo

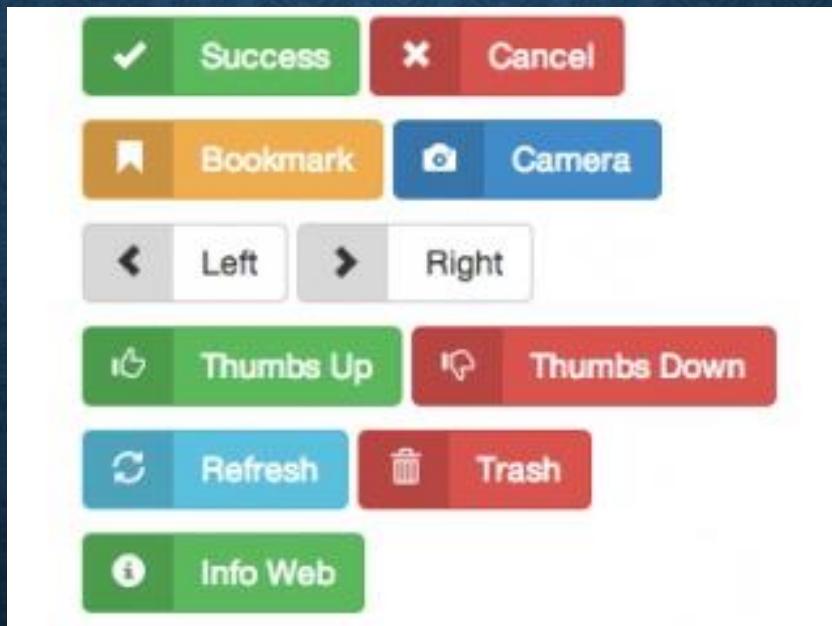
BUTTONS

- Bootstrap buttons can be used with one of the following elements
 - <button>
 - <input>
 - <a>
- Bootstrap has various kinds of buttons
 - btn-default
 - btn-primary
 - btn-success
 - btn-info
 - btn-warning
 - btn-danger
 - btn-link

BUTTONS



BUTTONS



DROPSWNS

```
<div class="dropdown">
  <button class="btn btn-primary dropdown-toggle"
    type="button" data-toggle="dropdown">Select Coin</button>
  <ul class="dropdown-menu">
    <li><a href="#">Bitcoin</a></li>
    <li><a href="#">Ethereum</a></li>
    <li><a href="#">Monero</a></li>
  </ul>
</div>
```

- The `dropdown` class indicates a dropdown menu
- To open the dropdown menu, use a `button` or a `link` with a `class` of `dropdown-toggle` and the `data-toggle="dropdown"` attribute
- Add the `dropdown-menu` class to a `` element to build the dropdown menu

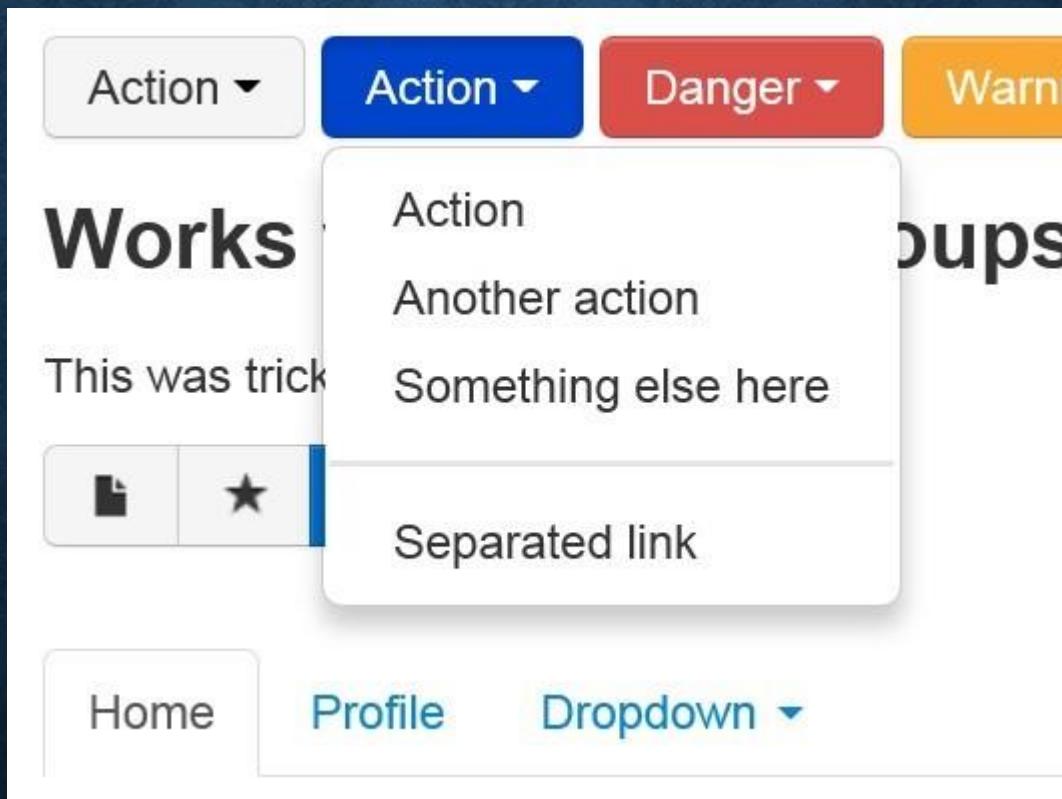
DROPDOWNS

- It is also a good idea to add the appropriate symbol for a dropdown menu

```
<span class="caret">
```

- Add before you close the button tag
- The caret class creates a caret arrow icon, which indicates that the button is a dropdown

DROPDOWNS



IMAGES

- There are also a number of nice tools for handling images using Bootstrap
 - `img-rounded`
 - `img-circle`
 - `img-thumbnail`
- It is also often useful to have images resize with the size of the screen
 - `img-responsive`

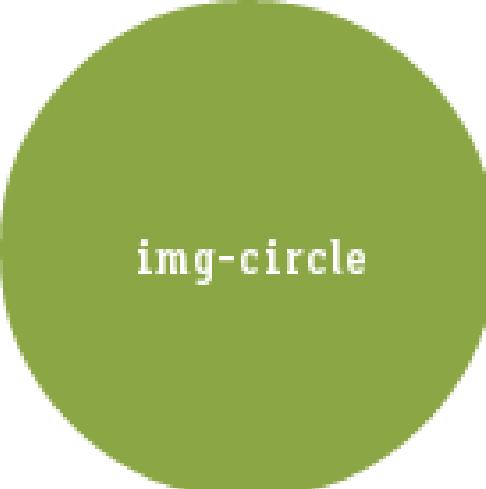
```

```

IMAGES



img-rounded



img-circle



img-thumbnail

CAROUSELS

- Bootstrap Carousel can be used to allows users to cycle through images in a fluid and visually appealing fashion
- Typically used on the home page to showcase your company, products, or latest news
 - Check out the home page of the University of Pretoria
- Images change
 - Automatically every few seconds
 - Manually when the user clicks

CAROUSELS

- First add the main carousel element

```
<div id="coins" class="carousel slide" data-ride="carousel">
```

CAROUSELS

- Then specify the images to display

```
<div class="carousel-inner" role="listbox">
  <div class="item active">
    
  </div>
  <div class="item">
    
  </div>
  <div class="item">
    
  </div>
</div>
```

CAROUSELS

- In addition the following can be added to the carousel
 - Indicators: the little dots at the bottom showing which slide is currently shown
 - Slide change button: next/previous button to manually change the slide

CAROUSELS



CAROUSELS



TABS AND PILLS

- Most websites have some kind of navigation menu with tabs beneath them

```
<ul class="nav nav-tabs">
    <li class="active"><a href="login.php">Login</a></li>
    <li><a href="register.php">Register</a></li>
    <li><a href="help.php">Help</a></li>
</ul>
```

- Simply specify the class `nav nav-tabs` in the unordered list tag
- Set the default tab by providing the class `active`

TABS AND PILLS

- Deeper dropdown menus with submenus can be created

```
<li class="dropdown">
    <a class="dropdown-toggle" data-toggle="dropdown" href="#">
        Menu 1
        <span class="caret"></span>
    </a>
    <ul class="dropdown-menu">
        <li><a href="#">Submenu 1-1</a></li>
        <li><a href="#">Submenu 1-2</a></li>
        <li><a href="#">Submenu 1-3</a></li>
    </ul>
</li>
```

TABS AND PILLS

- If you want Pills rather just change the class of the unordered list element to nav nav-pills
- If you want them stacked just add nav-stacked

TABS AND PILLS



TABS AND PILLS

The image shows a user interface for a login page. At the top, there is a horizontal navigation bar with four items: "Login Panel" (with a lock icon), "Register Panel" (with a person icon), "Forgot Password" (with a magnifying glass icon), and "Contact Us" (with an envelope icon). The "Register Panel" item is currently selected, as indicated by a gray background.

The main content area has two sections: "Login Here" and "Social". The "Login Here" section contains fields for "Username" and "Password", and a "Remember Me" checkbox. To the right of these fields is a "Forgot Password" link. The "Social" section features icons for Facebook ("f") and Google+ ("g+").

NAVIGATION

- Navs can also be used as the top menu on a webpage
- Typically shows items like: Home, Prices, Cart, About Us, Contact Us, Login

```
<nav class="navbar navbar-default">
  <div class="container-fluid">
    <div class="navbar-header">
      <a class="navbar-brand" href="#">CoinyCoins</a>
    </div>
    <div>
      <ul class="nav navbar-nav">
        <li class="active"><a href="#">Home</a></li>
        <li><a href="contact.php">Contact Us</a></li>
        <li><a href="login.php">Login</a></li>
      </ul>
    </div>
  </div>
</nav>
```

NAVIGATION

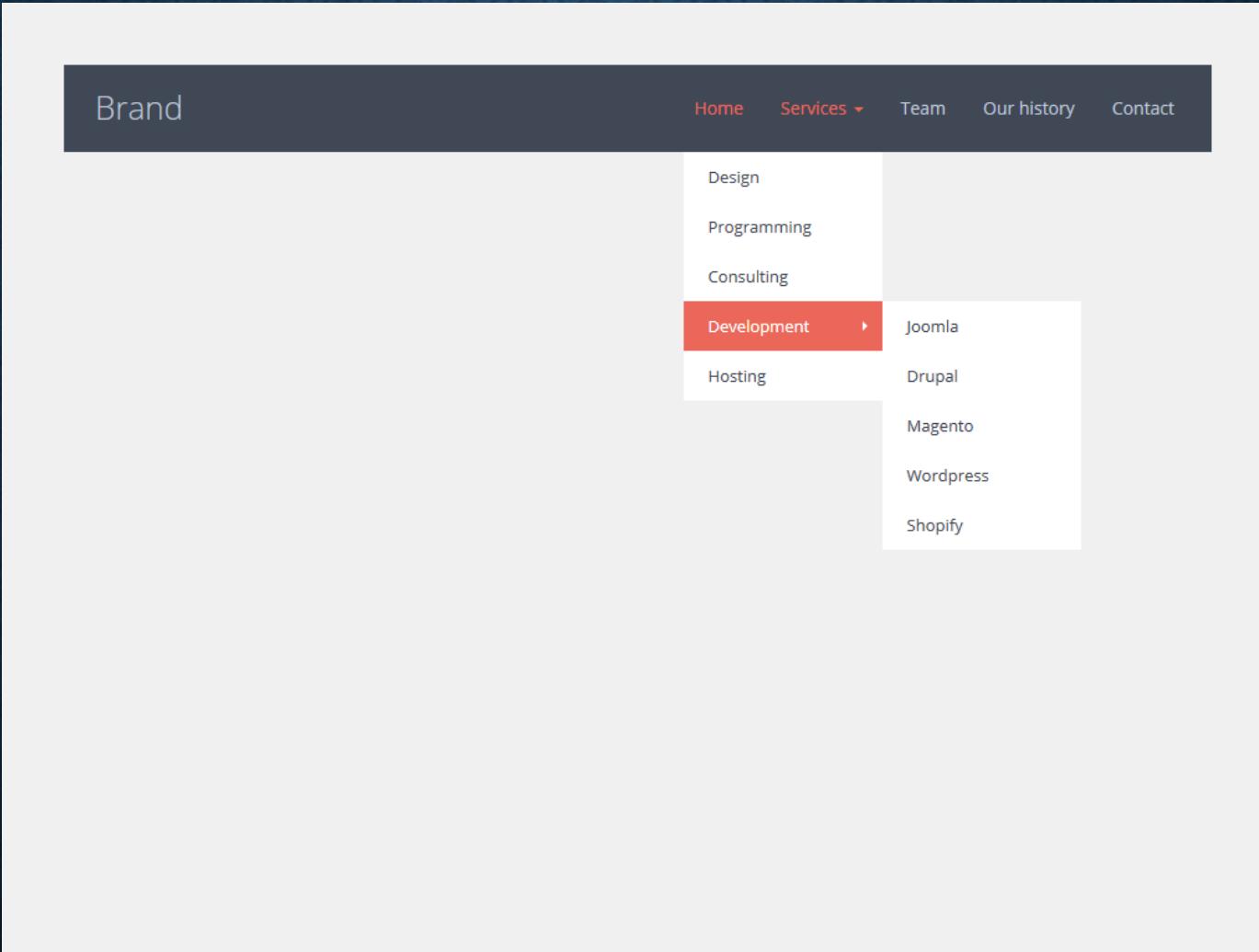
- A commonly used theme is the inverted navbar
 - Which is selected by using navbar-inverse instead of navbar-default
- Often times you would like the nav bar to be visible even when the user has scrolled down on the page
 - This can be achieved by adding navbar-fixed-top to the class
- Nav bars can also have submenus with even further subsubmenus
 - Add nested lists to your HTML

NAVIGATION

- To design a proper responsive website, very wide menus should be viewable on phones with smaller screens
- Make the menu collapsible
 - If the screen size is small enough all navs are added to a menu button which is toggable

```
<button type="button" class="navbar-toggle"  
       data-toggle="collapse" data-target="#myNavbar">  
  <span class="icon-bar"></span>  
  <span class="icon-bar"></span>  
  <span class="icon-bar"></span>  
</button>
```

NAVIGATION



NAVIGATION

This is an example of a large container with 4 columns

Box header

This is a default color box content

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est ...

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Here is some content with side images and list items

 **Lorum ipsum**

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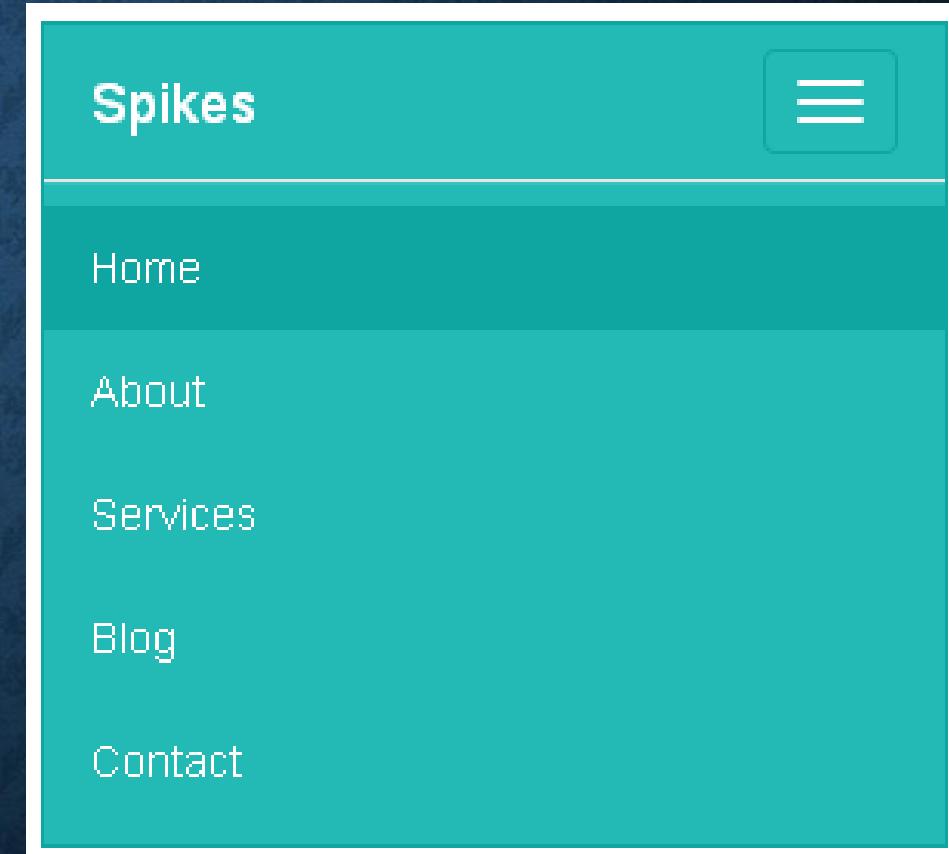
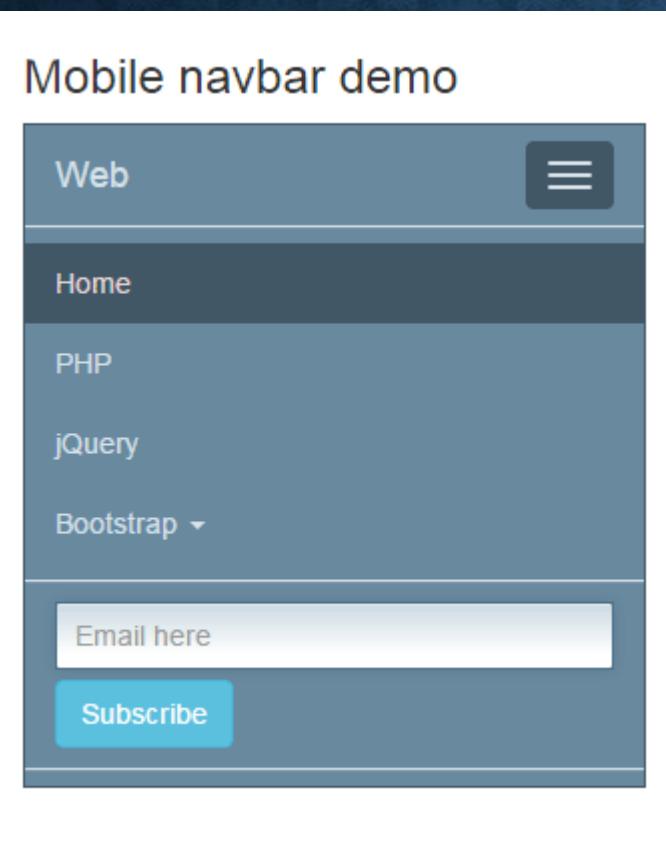
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NAVIGATION



MODALS

- Modals are HTML popups which hover over the page
- You can fully customize Bootstrap modals with your own elements
- For instance, you can have a modal popup which lets users enter their username and password to login

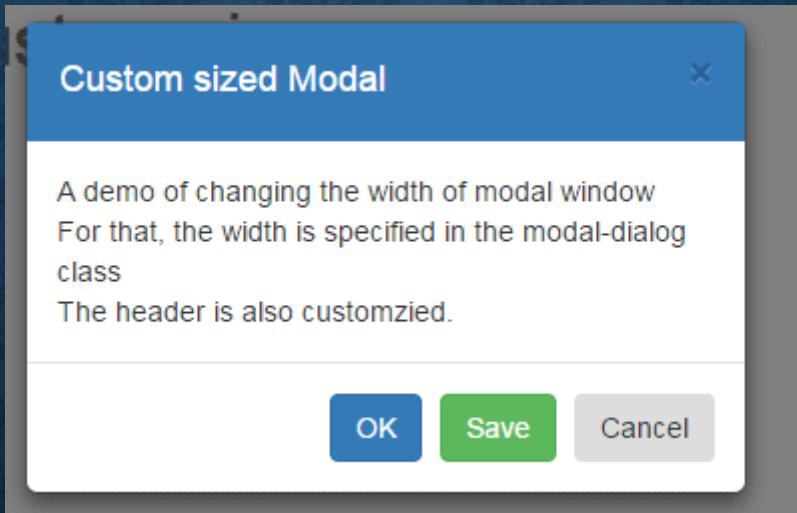
```
<div id="myModal" class="modal fade" role="dialog">
  <div class="modal-dialog">
    <!-- Dialog code here -->
  </div>
</div>
```

MODALS

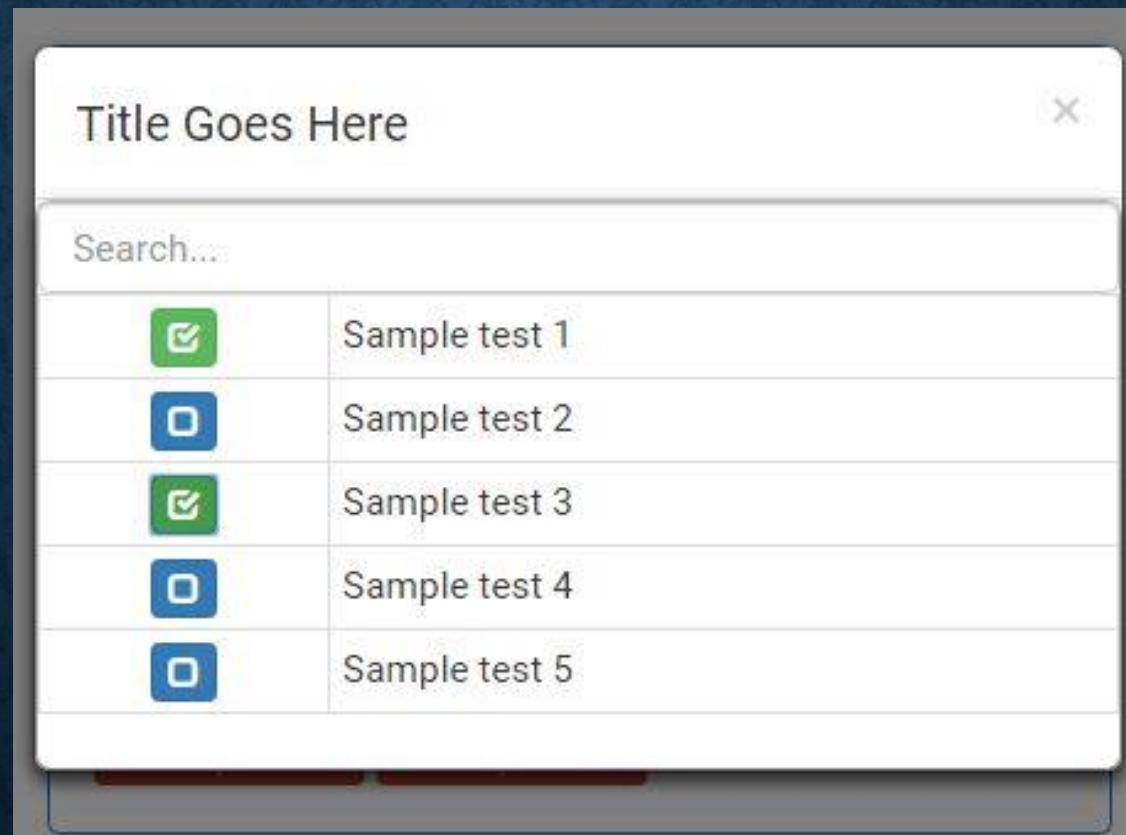
- Add this to the inner dialog element

```
<div class="modal-content">
  <div class="modal-header">
    .....
  </div>
  <div class="modal-body">
    .....
  </div>
  <div class="modal-footer">
    .....
  </div>
</div>
```

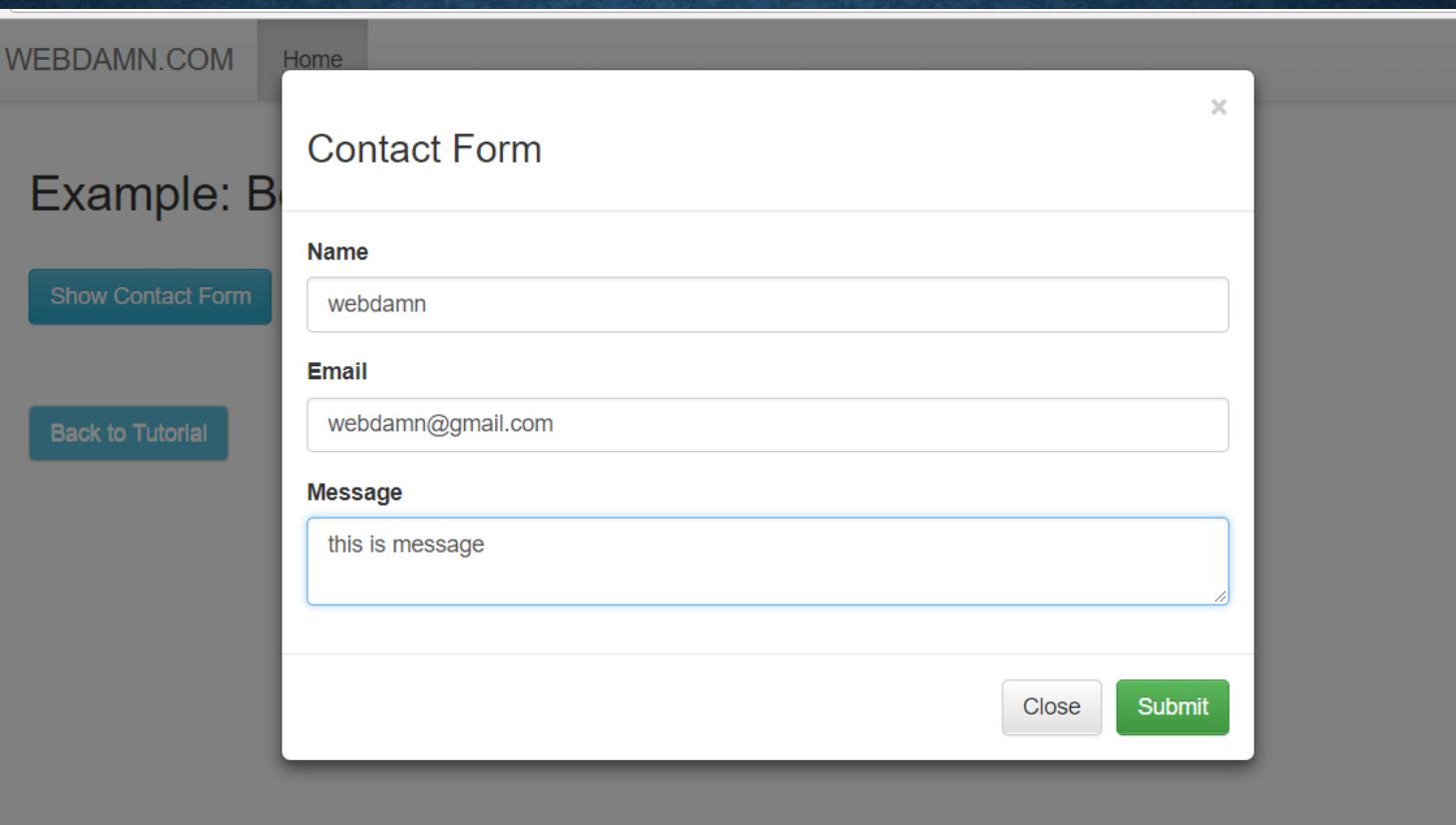
MODALS



MODALS



MODALS



SUMMARY

- These are only a few of the Bootstrap class
- Many more exist in native Bootstrap and through extensions
- The main idea persists
 - Create standard HTML elements
 - Combine different HTML elements if needed
 - Add Bootstrap CSS classes to them
 - Bootstrap handles the rest

