Stop Reinventing the Wheel

Faster web development with Bootstrap framework

Gaurav Gupta
edUi Conference, November 5, 2013
#edui_bootstrap
@frshbakedpixels
http://FreshlyBakedPixels.com
about me

IT Analyst

Office of the Vice Provost for Learning Innovation and Student Success

Virginia Commonwealth University
web developer team of \( \frac{1}{2} \)

- content creation
- writing code and browser testing
- wireframing
- backend programming
- CMS integration
- maintain old web sites
- print design
- writing code and browser testing
more time spent on coding and testing = less time available for other tasks
```javascript
var a = document.getElementsByTagName('a');
for (var i=0; i<a.length; i++) {
    a[i].className += " button";
}

VS.

$( "a" ).addClass("button")
```
CSS and JavaScript library
Originally developed by Twitter
Made open source in October 2011
Currently Version 3.0.1
Bootstrap is not just for web team of $\frac{1}{2}$
Doing the Most Good
The Salvation Army in the Midwest

We're here to help
Here for the homeless, the unemployed, the victims of trafficking, the lonely and the lost.

Support Us
The Salvation Army works every day to make life better for countless people in your community

Explore our mission
We are motivated by the love of God and a concern for the needs of all humanity.

Source: http://centralusa.salvationarmy.org/
Jokes of the Week (10/21/13)

What a great week of shows we had! Let's look back at our favorite jokes.

More »

Photo Gallery: October 21 - 25

This week was Pearl Jam Week on Late Night!
Federal judge blocks enforcement of Texas abortion law, says restrictions are unconstitutional - @becca_aa, @jgrovm

Former Arizona Republican Rep. Richard Renzi sentenced to 3 years in prison for fraud, extortion, US district judge says - @Reuters

Los Angeles police: 2 arrested in Oct. 19 Craigslist killing of man who had responded to Craigslist ad, shot to death in front of son - @KNX1070

Consumer Reports gives Tesla Model S its 'Recommended' rating - @CNNMoney

Suspect in Arlington, Texas, standoff now in custody after surrendering to law enforcement; secondary searches underway - @ArlingtonPD

President Obama's campaign organization site, @BarackObama Twitter handle compromised by hacking group - @allthingsd

2 of 4 Oklahoma inmates who escaped through ceiling of jail shower captured, sheriff says - @cmbrk

Singer Ciara engaged to rapper, producer Future; engagement ring is 15-carat emerald cut diamond, rep says - @jonline

40,000 homes across England without power after high winds and rain, UK Power Networks says - @BBCNews

More: Some English Channel and Irish Sea crossings cancelled as fury companies suspend services - @BBCNews

Federal judge blocks enforcement of Texas abortion law, says restrictions are unconstitutional - @becca_aa, @jgrovm

Obama second term nominations: Photo: FBI Director James Comey being sworn in now as President Obama looks on - @WestWingReport

Source: http://www.breakingnews.com/
...and the most talked about website in US
Find health coverage that works for you

Get quality coverage at a price you can afford. Open enrollment in the Health Insurance Marketplace continues until March 31, 2014.

APPLY ONLINE
APPLY BY PHONE

SEE PLANS AND PRICES IN YOUR AREA
SEE PLANS NOW

Get covered: A one-page guide
Find out if you qualify for lower costs
See 4 ways you can apply for coverage
Get in-person help in your community
Call 1-800-318-2596 for information

Health Insurance Marketplace

154 DAYS LEFT TO ENROLL

OCT 1
Open Enrollment Began

JAN 1
Coverage Can Begin

MAR 31
Open Enrollment Closes
Bootstrap 3 Goes Mobile-First, Now Reportedly Powers 1% Of The Web

Posted Jul 28, 2013 by Frederic Lardinois

The team behind Bootstrap, the immensely popular grid-based, front-end framework for web development, launched the first release candidate of Bootstrap 3 includes over the weekend. Besides a tweaked look and a couple of new features (and also the removal of a few others), the most important change in this update is that Bootstrap, just like its close competitor Foundation, is now mobile-first and responsive by default. The announcement coincided with new data from source-code search engine meanpath, which also this weekend...
what’s included in Bootstrap
Responsive grid system

- 12 column grid
- 4 different screen sizes
- Nestable
Responsive grid system

Pre-styled elements

- Navigation bar
- Drop-down menus
- Forms
- Buttons
- Tables
- Labels and Badges
pre-styled buttons

<a href="#">button</a>

Button

<a class="btn btn-default">Default button</a>

Primary button

<a class="btn btn-primary">Primary button</a>

Large button

<a class="btn btn-primary btn-lg">Large button</a>
pre-styled form elements

Option 1  Option 2  Option 3

Search

- Images
- Videos
- Vectors
- All

Option 1  Option 2  Option 3

Search
Responsive grid system
Pre-styled elements

Icon font
Glyphicons
Free with Bootstrap
Glyphicons

180 icons
what’s included

Responsive grid system
Pre-styled elements
Icon font
JavaScript plugins

Modal
Drop-down
Tab
Collapse
Tooltip and Popover
Carousel
Scrollspy
Affix
Bootstrap
Sleek, intuitive, and powerful mobile first front-end framework for faster and easier web development.

Download Bootstrap  
Download source

http://getbootstrap.com/
you can choose and customize

Common CSS
- Print media styles
- Typography
- Code
- Grid system
- Tables
- Forms
- Buttons

Components
- Glyphicons
- Button groups
- Input groups
- Navs
- Navbar
- Breadcrumbs
- Pagination
- Pager
- Labels
- Badges
- Jumbotron
- Thumbnails
- Alerts
- Progress bars
- Media items
- List groups
- Panels
- Wells
- Close icon

JavaScript components
- Dropdowns
- Tooltips
- Popovers
- Modals
- Carousel

Utilities
- Basic utilities
- Responsive utilities
- Component animations (for JS)
Bootstrap folder structure

- Bootstrap
  - css
    - bootstrap.css
    - bootstrap.min.css
  - js
    - bootstrap.js
    - bootstrap.min.js
  - fonts
    - glyphicons-halflings-regular.eot
    - glyphicons-halflings-regular.svg
    - glyphicons-halflings-regular.ttf
    - glyphicons-halflings-regular.woff
you will also need

jQuery

For IE8 and below
respond.js (media queries)
html5shiv.js (HTML5 support)
let’s build something
Gaurav Gupta
web designer, developer

about me


recent projects
CourseEval

http://tiny.cc/edui1
<!DOCTYPE HTML>
<html><head><title></title></head>
<body>
<header></header><nav></nav><section></section><section></section><section></section><section></section><footer></footer>
</body>
</html>
Bootstrap has 3 breakpoints

- **extra-small**
  - .col-xs-
  - 768px

- **small**
  - .col-sm-
  - 992px

- **medium**
  - .col-md-

- **large**
  - .col-lg-
  - 1200px
<div class="row">
  <div class='col-md-8'>col-md-8</div>
  <div class='col-md-4'>col-md-4</div>
</div>

relative width of columns numbers must add up to 12

screen size prefixes

col-md-8  col-md-4
I work as an IT Analyst for Office of the Vice Provost for Learning Innovation and Student Success at Virginia Commonwealth University. In this role, I manage web applications for course evaluations and writing assessment; I design websites and web applications for several units within this office.

My area of interest is building simple, intuitive designs and better user experience in web applications. When not working on a project, I like to learn about the advances in web technologies and trends in web design in general.
I work as an IT Analyst for Office of the Vice Provost for Learning Innovation and Student Success at Virginia Commonwealth University. In this role, I manage web applications for course evaluations and writing assessment; I design usability and web applications for several units within this office.

My area of interest is building simple, intuitive designs and better user experience in web applications. When not working on a project, I like to learn about the advances in web technologies and trends in user design in general.
<div class="container">
    <div class="row">
        <div class="col-md-8">col-md-8</div>
        <div class="col-md-4">col-md-4</div>
    </div>
</div>

really large screen
<header class="container">
  <div class="row">
    <div class="col-sm-5">
      <img src="images/gaurav.png">
    </div>
    <div class="col-sm-7">
      <h1>Gaurav Gupta</h1>
      <p>web designer, developer</p>
    </div>
  </div>
</header>
change column order

<header class="container">
  <div class="row">
    <div class="col-sm-5 col-sm-pull-7">
      <img src="images/gaurav.png">
    </div>
    <div class="col-sm-7 col-sm-push-5">
      <h1>Gaurav Gupta</h1>
      <p>web designer, developer</p>
    </div>
  </div>
</header>
mix and match grid columns

```html
<div class="row">
  <div class="col-md-6 col-sm-12">column 1</div>
  <div class="col-md-4 col-sm-6" >column 2</div>
  <div class="col-md-2 col-sm-6" >column 3</div>
</div>
```
responsive navigation
start with basic markup

<nav>
  <ul>
    <li><a href="#home">home</a></li>
    <li><a href="#about">about me</a></li>
    <li><a href="#projects">recent projects</a></li>
    <li><a href="#presentations">presentations</a></li>
    <li><a href="#contact">contact me</a></li>
  </ul>
</nav>

• home
• about me
• recent projects
• presentations
• contact me
add classes

```html
<nav class="navbar navbar-default">
  <ul class="nav nav-justified">
    <li><a href="#home">home</a></li>
    <li><a href="#about">about me</a></li>
    <li><a href="#projects">recent projects</a></li>
    <li><a href="#presentations">presentations</a></li>
    <li><a href="#contact">contact me</a></li>
  </ul>
</nav>
```
collapse navigation on small screens

```html
<nav class="navbar navbar-default">
    <ul class="nav nav-justified collapse navbar-collapse">
        ...
    </ul>
</nav>
```

small – large screens

extra-small screen
add toggle button

```html
<nav>
  <div class="navbar-header visible-xs">
    <button class="navbar-toggle" data-toggle="collapse" data-target=".my-navbar">
      <span class="glyphicon glyphicon-align-justify"></span>
    </button>
  </div>
  <ul class="nav nav-justified collapse navbar-collapse my-navbar">
  ...  
  </ul>
</nav>
```

small – large screens

extra-small screen
add header text

```
<div class="navbar-header visible-xs">
  <button class="navbar-toggle" data-toggle="collapse" data-target="#.
  navbar">
    <span class="glyphicon glyphicon-align-justify"></span>
    <h3 class="text-center">Gaurav Gupta</h3>
  </button>
</div>
```
adding your own styles

Use web developer tools
/* bootstrap.css */

.navbar-default {
    background-color: #f8f8f8;
    border-color: #e7e7e7;
}

/* myCustomStylesheet.css */

.navbar-default {
    background-color: #74716a;
    border-color: #FFF;
}
be aware of CSS specificity

.nav-justified > li > a

.nav-justified li a

li a
responsive images

```html
<img src="..." class="img-responsive">
```
responsive tables

```html
<div class="table-responsive">
  <table class="table">
    ...
  </table>
</div>
```
JavaScript
Affix: fix position of elements on page

```javascript
$('nav').affix({offset: {top: $('nav').offset().top, bottom: 200}});
```
Scrollspy: indicate current location

```html
<body data-spy="scroll" data-target=".nav">

nav .nav > li.active > a {
  background-color: #514F4A;
}
```
tabs

<ul class="nav nav-tabs">
  <li><a href="#contactme" data-toggle="tab">Contact me</a></li>
  <li><a href="#twitter" data-toggle="tab">Twitter</a></li>
  <li><a href="#services" data-toggle="tab">Services</a></li>
</ul>

<div class="tab-content">
  <div class="tab-pane" id="contactme">...</div>
  <div class="tab-pane" id="twitter">...</div>
  <div class="tab-pane" id="services">...</div>
</div>
<input type="text" data-toggle="tooltip" title="full name">

$('[data-toggle="tooltip"]').tooltip();
Bootstrap +
146 lines of CSS +
10 lines of JS

write less, do more.
about me


recent projects

CourseEval
retrofitting an existing website
edUi page built with Bootstrap

http://tiny.cc/edui2

2 hours
Apple page built with Bootstrap

http://tiny.cc/edu13

8-10 hours
Examples

Build on the basic template above with Bootstrap's many components. See also Customizing Bootstrap for tips on maintaining your own Bootstrap variants.

- **Starter template**: Nothing but the basics: compiled CSS and JavaScript along with a container.
- **Grids**: Multiple examples of grid layouts with all four tiers, nesting, and more.
- **Jumbotron**: Build around the jumbotron with a navbar and some basic grid columns.
third party add-ons
Font Awesome
by Dave Gandy
license: SiL

Fontello - icon fonts generator
Feedback · API · GitHub · Follow · Tweet · Donate

search
font name
Download webfont (0)

Select Icons
Customize Names
Customize Codes
Help

Font Awesome icons
Bootsnip: button builder

Button Builder for Bootstrap 3

Button text:

Color:
Default Primary Info Success Warning Danger

Size:
Mini Small Default Large

Icon:
Search icons: Search icon

http://bootsnipp.com/buttons
Lavish: Bootstrap themes from images

Step 1: Provide an image

https://sphotos-a.sjc.xx.fbcdn.net/hphotos-prn1/163026_481734701986_7179594_n.jpg

Step 2: Customize everything

<table>
<thead>
<tr>
<th>body background</th>
<th>#D4D8D1</th>
<th>#A8A5A1</th>
<th>#AA9A66</th>
<th>#B74934</th>
<th>#577492</th>
<th>#67655D</th>
<th>#332C2F</th>
</tr>
</thead>
<tbody>
<tr>
<td>disabled input &amp; button background, input addon background, nav &amp; tabs &amp; pagination link hover background, jumbotron background</td>
<td>#A8A5A1</td>
<td>#D4D8D1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

http://www.lavishbootstrap.com/
other frameworks
# A Collection of Best Front End Frameworks for FASTER & EASIER WEB DEVELOPMENT

<table>
<thead>
<tr>
<th>Framework</th>
<th>Syntax</th>
<th>License</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter Bootstrap</td>
<td>LESS</td>
<td>MIT</td>
<td><a href="http://usablica.github.io/front-end-frameworks/compare.html">Apache v2.0</a></td>
</tr>
<tr>
<td>Foundation</td>
<td>LESS</td>
<td>MIT</td>
<td><a href="http://usablica.github.io/front-end-frameworks/compare.html">MIT</a></td>
</tr>
<tr>
<td>UIKit</td>
<td>LESS</td>
<td>MIT</td>
<td><a href="http://usablica.github.io/front-end-frameworks/compare.html">Google &amp; MIT</a></td>
</tr>
<tr>
<td>960 Grid System</td>
<td>LESS</td>
<td>MIT</td>
<td><a href="http://usablica.github.io/front-end-frameworks/compare.html">MIT</a></td>
</tr>
<tr>
<td>99lime HTML KickStart</td>
<td>LESS</td>
<td>MIT</td>
<td>Open Source</td>
</tr>
<tr>
<td>Kube</td>
<td>LESS</td>
<td>Apache v2.0</td>
<td><a href="http://usablica.github.io/front-end-frameworks/compare.html">Apache v2.0</a></td>
</tr>
<tr>
<td>Less Framework</td>
<td>LESS</td>
<td>Apache v2.0</td>
<td>Open Source</td>
</tr>
<tr>
<td>Flaminwork</td>
<td>LESS</td>
<td>Apache v2.0</td>
<td>Open Source</td>
</tr>
<tr>
<td>G5 Framework</td>
<td>LESS</td>
<td>Apache v2.0</td>
<td>Open Source</td>
</tr>
<tr>
<td>Easy Framework</td>
<td>LESS</td>
<td>Apache v2.0</td>
<td>Open Source</td>
</tr>
</tbody>
</table>
my selection criteria

responsive
browser support
features
popularity
other resources

50 Must-have Bootstrap plugins
http://tutorialzine.com/2013/07/50-must-have-plugins-for-extending-twitter-bootstrap/

Bootply
http://bootply.com/

Bootstrap CDN
http://www.bootstrapcdn.com/

More resources
http://bootsnipp.com/resources
questions?

#edui_bootstrap

@frshbakedpixels

http://FreshlyBakedPixels.com