



WHICH RESPONSIVE DESIGN FRAMEWORK IS BEST?

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SHOULD I USE A
RESPONSIVE DESIGN
FRAMEWORK?

MAKE MILLIONS



SAY IT DEPENDS

WE NEED A BETTER METHOD OF CODE MAINTENANCE



NO MIDDLE GROUND!

- While the back-end world has been developing tools and API's, the front-end world has been custom or off-the-shelf.

There has been
no middle ground.





Sushi Making Kit

Create your own Japanese style sushi at home!
This kit contains all the basic ingredients and utensils,
as well as a detailed recipe book to allow you to
make a variety of delicious and exotic sushi.
All you provide are the fresh ingredients for the filling,
such as: avocado, crabmeat, fresh cucumber,
shrimp, or whatever suits your fancy!

All of the ingredients in the Sushi Chef™ kit have been
selected for their superior quality and wholesomeness,
to assure you of a satisfying and rewarding
adventure into the world of sushi making.



ARGUMENT 1: FRAMEWORKS AS MIDDLE GROUND

- Some of the work is done for you – including debugging!
- You can still customize what you get.
- It doesn't have to look like a framework site.
- The front-end is adequately documented and is more easily maintained.





SOME PEOPLE STILL DON'T
KNOW WHAT THEY ARE DOING



80% | 20%

A chalkboard with the text "80% | 20%" written in white chalk. The text is centered and uses a casual, handwritten style. A vertical line separates the "80%" on the left from the "20%" on the right.

Recently published in Smashing Magazine

[Which Responsive Design Framework Is Best? Of Course, It Depends.](#) (2017)

[Responsive Design Frameworks: Just Because You Can, Should You?](#) (2014)



v4-alpha.getbootstrap.com



foundation.zurb.com



getuikit.com

- They offer similar features and functionality:
 - Grid system with breakpoints
 - Pre-styled components
 - Styling managed through CSS preprocessor
 - jQuery powers JavaScript-based widgets
 - In active development
- They are not the ONLY frameworks, and they may not be the BEST frameworks



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

[Download Bootstrap](#)

Currently v4.0.0-alpha.6

Easy to get started.

Quickly include Bootstrap's CSS and JS into any project. Use your favorite package manager, download the source, or use the Bootstrap CDN.

<https://cssauthor.com/css-frameworks/>

DISCLAIMER

- I do not work for or contribute to the coding of any project.
- I have no insight into any project other than what's publicly available for both projects.
- I think all frameworks are awesome and amazing in their own right and are appropriate for different situations and different skillsets.

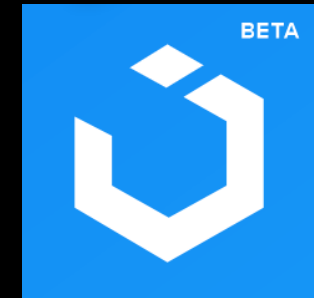
CREATION STORIES



- Started at Twitter as internal tool in 2011
- Released as open source in 2012
- Twitter is no longer involved



- ZURB is a 30-person web development company in Campbell, CA
- Created Foundation to build client websites
- Mark Otto worked here until 2007
- When ZURB saw how well Bootstrap was doing, they released Foundation as an open source project.



- YOTheme was founded in 2007 in Hamburg, Germany
- At first, created Joomla CMS templates
- Branched into Joomla extensions
- Branched into WordPress in 2011
- Released Uikit in 2013

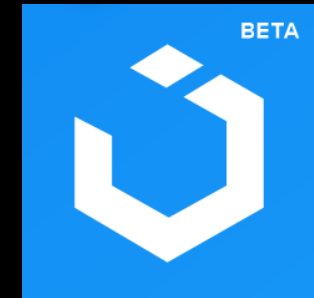
PROJECT MANAGEMENT



- Open source
- No company support
- Code and documentation copyright (2011 to 2017) of the Bootstrap authors and Twitter, Inc.
- Docs released under Creative Commons
- MIT license for code



- Open source
- ZURB tech support via forum
- Video training offered
- In-person and online training available
- MIT license, no mention of copyright



- Open source
- YO theme is behind the framework, but no obvious training offered
- MIT license, copyright YO theme GmbH

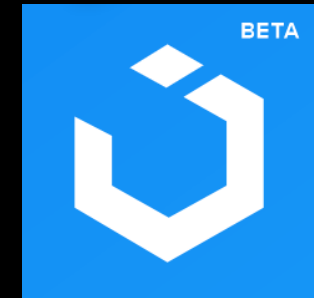
BROWSER SUPPORT



- IE 10+
- "Latest, stable releases of all major browsers and platforms"
- <https://v4-alpha.getbootstrap.com/getting-started/accessibility/>



- IE 9+
- Last 2 versions of Chrome, Firefox, Safari, Opera, Mobile Safari, IE Mobile
- Android browsers 2.3+
- <http://foundation.zurb.com/sites/docs/compatibility.html>



- IE 10+
- Latest: Chrome, Firefox, Edge, Opera
- Safari 7.1+
- <https://getuikit.com/docs/introduction#browser-support>

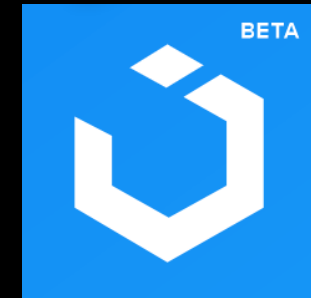
ACCESSIBILITY



- Screen reader only classes available
- Make use of ARIA roles and labels in their examples
- Advocate standard accessibility practices
- <https://v4-alpha.getbootstrap.com/getting-started/browsers-devices/>



- Advocate standard accessibility practices
- What-input CSS library adjusts CSS based on keyboard or mouse input type
- JS adds some HTML attributes
- <http://foundation.zurb.com/sites/docs/accessibility.html>



- No explicit accessibility instructions on site
- Forum comment indicates some accessibility features, not AA compliant. See <https://yootheme.com/support/question/95829>

GRID SYSTEM



- Flexbox grid by default
- 5 breakpoints, defined in pixels
- <https://v4-alpha.getbootstrap.com/layout/grid/>



- Flexbox grid by default, called XY Grid (new in 6.4)
- Carrying legacy float grid, flex grid
- Equalizer plugin for same height columns with floats
- <http://foundation.zurb.com/sites/docs/accessibility.html>



- Grid has 3 components: grid, flex, width
 - Grid:** boxes next to each other
 - Width:** box width
 - Flex:** layout within box
- Create as many/few columns as you wish
- Flexbox grid
- <https://getuikit.com/docs/grid>

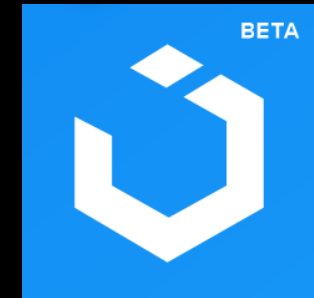
STYLING



- Lots of styling
- Sass preprocessor
- <https://v4-alpha.getbootstrap.com/getting-started/build-tools/>



- Less styling
- Sass preprocessor
- <http://foundation.zurb.com/sites/docs/sass-functions.html>,
<http://foundation.zurb.com/sites/docs/sass-mixins.html>



- Tons of styling
- LESS preprocessor, Sass port
- <https://getuikit.com/docs/less>,
<https://getuikit.com/docs/sass>

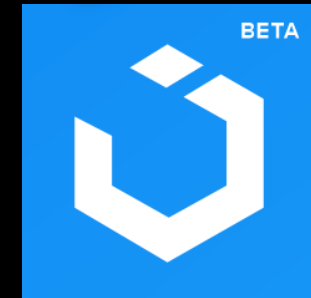
UNIQUE JAVASCRIPT PLUGINS



- Everything in Bootstrap has become "standard"
- No off-canvas nav
- <https://v4-alpha.getbootstrap.com/components/alerts/>



- Form validation (Abide)
- Equal height columns (Equalizer)
- Responsive image treatment (Interchange)
- Animate CSS on click (Toggler)
- <http://foundation.zurb.com/sites/docs/abide.html>



- "Ulkit is listening for DOM manipulations and will automatically initialize, connect and disconnect components as they are inserted or removed from the DOM"
- Grid Parallax, Parallax
- Sortable lists and grids
- Items for CMS admin (HTML editor, date and time pickers)
- <https://getuikit.com/docs/javascript>

ACCORDION COMPARISON

https://v4-alpha.getbootstrap.com/components/collapse/ -- 1507 characters, no spaces/1154 chars without ARIA	http://foundation.zurb.com/sites/docs/accordion.html -- 860 characters, no spaces	https://getuikit.com/docs/accordion 675 characters, no spaces
<pre><div id="accordion" role="tablist" aria-multiselectable="true"> <div class="card"> <div class="card-header" role="tab" id="headingOne"> <h5 class="mb-0"> <a data-toggle="collapse" data-parent="#accordion" href="#collapseOne" aria-expanded="true" aria-controls="collapseOne"> Item 1 </h5> </div> <div id="collapseOne" class="collapse show" role="tabpanel" aria-labelledby="headingOne"> <div class="card-block"> <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.</p> </div> </div> </div> <div class="card"> <div class="card-header" role="tab" id="headingTwo"> <h5 class="mb-0"> Item #2 </h5> </div> <div id="collapseTwo" class="collapse" role="tabpanel" aria-labelledby="headingTwo"> <div class="card-block"> <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor reprehenderit.</p> </div> </div> </div> <div class="card"> <div class="card-header" role="tab" id="headingThree"> <h5 class="mb-0"> Item #3 </h5> </div> <div id="collapseThree" class="collapse" role="tabpanel" aria-labelledby="headingThree"> <div class="card-block"> <p>Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat proident.</p> </div> </div> </div> </div></pre>	<pre><ul class="accordion" data-accordion> <li class="accordion-item is-active" data-accordion-item> Item 1 <div class="accordion-content" data-tab-content > <p>>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.</p> </div> <li class="accordion-item" data-accordion-item> Item 2 <div class="accordion-content" data-tab-content> <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor reprehenderit.</p> </div> <li class="accordion-item" data-accordion-item> Item 3 <div class="accordion-content" data-tab-content> <p>Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat proident.</p> </div> </pre>	<pre><ul uk-accordion> <li class="uk-open"> <h3 class="uk-accordion-title">Item 1</h3> <div class="uk-accordion-content"> <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.</p> </div> <h3 class="uk-accordion-title">Item 2</h3> <div class="uk-accordion-content"> <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor reprehenderit.</p> </div> <h3 class="uk-accordion-title">Item 3</h3> <div class="uk-accordion-content"> <p>Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat proident.</p> </div> </pre>



CAN THERE BE ONLY ONE?

USE BOOTSTRAP IF...

- Your boss is name-brand conscious and/or you like to follow the pack.
- You need lots of styling out of the box without changes.
- You're OK with strictly open source (no support).
- You need some unique CSS/JS styling.



USE FOUNDATION IF...

- You don't want a ton of styling to override later.
- You love Sass/npm/command line stuff.
- You need float support/IE9 support.
- You need training and/or someone you can call for tech support.
- You need some of the JS widgets offered.



USE UIKIT IF...

- You're working with React, Vue, or another reactive framework.
- You like LESS over Sass.
- You like built-in SVG icons (not FontAwesome).
- You're building something with an admin interface.
- You need to do something crazy with the grid system.
- You're a more advanced developer who can deal with not the clearest docs.



QUESTIONS?

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