

Responsive design

Agenda

- Twitter Bootstrap
- jQuery Mobile
- RequireJS
- Backbone
- Handlebars
- a ostatné knihovny...

Co je to responsive?

- Způsob stylování HTML
- Zobrazení stránky optimalizováno pro všechny zařízení
- Dosaženo pomocí CSS Media Queries

```
@media (max-width: 780px) and (min-width: 660px) {  
    ...  
}
```

- To, ale nestačí...

Optimalizace webu pro mobily

- Změna rozložení stránky
- Méně zajímavé části webu
- Rychlost připojení
- Výkon zařízení
- Ovladatelnost

Příklad 1

Responzivní stránka



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

[Download Bootstrap](#)

Currently v3.2.0

Twitter Bootstrap

- HTML + CSS + JS Boilerplate
- CSS (LESS) framework
- Responsive – mobile first

Responsiveness

- Grid (sloupce)
 - `col-(xs|sm|md|lg)(-(offset|pull|push))?(1..12)`
- Viditelnost
 - `visible-(xs|sm|md|lg|print)-(block|inline|inline-block)`
 - `hidden-(xs|sm|md|lg|print)`
- Nápomocné třídy
 - `pull-(left|right)`, `clearfix`
 - `show`, `hidden`, `text-hide`
 - `sr-only`, `sr-only-focusable`

Komponenty

- Typografie
 - Nadpisy, text, zvýraznění, citace, seznamy
- Navigace
- Ikony
- Tabulky
- Formuláře
- Obrázky
- JS komponenty
- ...

Less

- Proměnné
- Responsive mixins
 - `.make-(xs|sm|md|lg)-columns(@columns; @gutter)(-(offset|push|pull))?`
 - `.make-row(@gutter)`
- Utility mixins
 - `.pull-left()`, `.pull-right()`, `.center-block()`, `.clearfix()`
 - `.show()`, `.hidden()`, `.text-hide()`
 - `.sr-only()`, `.sr-only-focusable()`

Odkazy

- Ukázky kódu
 - <http://bootsnipp.com/> (pozor na verze)
- Šablony
 - <http://getbootstrap.com/examples/theme/> (default)
 - <https://wrapbootstrap.com/>
 - <http://www.prepbootstrap.com/>
 - <http://startbootstrap.com/>
 - <http://bootstrapzero.com/>

Příklad 2

Twitter Bootstrap

[Demos](#)[Download](#)[API Documentation](#)[Themes](#)[Resources](#)[Blog](#)[About](#)

A Touch-Optimized Web Framework

jQuery Mobile is a HTML5-based user interface system designed to make responsive web sites and apps that are accessible on all smartphone, tablet and desktop devices.

Download jQuery Mobile

[Custom download](#)[Latest stable](#)

Version 1.4.4

jQuery 1.8 - 1.11 / 2.1

Seriously cross-platform with HTML5

jQuery Mobile framework takes the "write less, do more" mantra to the next level: Instead of writing unique applications for each mobile device or OS, the jQuery mobile framework allows you to design a single highly-branded responsive web site or application that will work on all popular smartphone, tablet, and desktop platforms.



Developer Links

- [Source Code \(GitHub\)](#)
- jQuery Mobile Git (WIP Build)
 - [JavaScript](#)
 - [CSS](#)
- [Report an issue](#)

jQuery Mobile

- Nadstavba jQuery pro tvorbu mobilných webových aplikácií
- HTML5, CSS3, JavaScript, AJAX
- Konzistení styl aplikace
- [Podpora v mobilných zařízeních](#)
- [Ukázky komponent](#) a [Ukázky aplikací](#)

Příklad 3

jQuery Mobile



A JAVASCRIPT
MODULE LOADER

Home 🏠

Start ⏻

Download ⬇

API ⚙

Optimization ⚙

Use with jQuery </>

Use with Node </>

Use with Dojo </>

CommonJS Notes </>

FAQs ?

Common Errors ?

Writing Plugins ⚙

Why Web Modules ?

Why AMD ?

Requirements 📄

History ⌚

Get Help +

```
/* ---
```

RequireJS is a JavaScript file and module loader. It is optimized for in-browser use, but it can be used in other JavaScript environments, like Rhino and Node. Using a modular script loader like RequireJS will improve the speed and quality of your code.

IE 6+ compatible ✓

Firefox 2+ compatible ✓

Safari 3.2+ compatible ✓

Chrome 3+ compatible ✓

Opera 10+ compatible ✓

Get started then check out the API.

```
--- */
```



Latest Release: 2.1.15

Open source: new BSD or MIT licensed

web design by Andy Chung © 2011-2014

RequireJS

- Správa závislostí
 - Definování závislostí
 - Správné pořadí načítání závislostí
- Načítání obsahu na pozadí (asynchronně)
- Optimalizace a kompilace kódu

JS aplikace

- Konfigurace
 - path alias, konfigurační modul
 - shim
- Define

```
define('utils/my-lib', ['jquery', 'lib'], function($, Library) {  
    // use $ and Library here  
});
```

- Require

```
require(['utils/my-lib'], function(MyLib) {  
    // use $ and Library here  
});
```

Kompilace

- [build.json](#)
- r.js kompilátor

Příklad 4

RequireJS

Underscore.js (1.7.0)

- » [GitHub Repository](#)
- » [Annotated Source](#)
- » [Underscore-contrib](#)

Introduction

Collections

- [each](#)
- [map](#)
- [reduce](#)
- [reduceRight](#)
- [find](#)
- [filter](#)
- [where](#)
- [findWhere](#)
- [reject](#)
- [every](#)
- [some](#)
- [contains](#)
- [invoke](#)
- [pluck](#)
- [max](#)
- [min](#)
- [sortBy](#)
- [groupBy](#)
- [indexBy](#)
- [countBy](#)
- [shuffle](#)
- [sample](#)
- [toArray](#)
- [size](#)
- [partition](#)

Arrays

- [first](#)
- [initial](#)

UNDERSCORE.JS

Underscore is a JavaScript library that provides a whole mess of useful functional programming helpers without extending any built-in objects. It's the answer to the question: "If I sit down in front of a blank HTML page, and want to start being productive immediately, what do I need?" ... and the tie to go along with jQuery's tux and Backbone's suspenders.

Underscore provides over 100 functions that support both your favorite workaday functional helpers: **map**, **filter**, **invoke** — as well as more specialized goodies: function binding, javascript templating, creating quick indexes, deep equality testing, and so on.

A complete Test Suite is included for your perusal.

You may also read through the annotated source code.

Enjoying Underscore, and want to *turn it up to 11*? Try Underscore-contrib.

The project is hosted on GitHub. You can report bugs and discuss features on the issues page, or on Freenode in the `#documentcloud` channel.

Underscore is an open-source component of DocumentCloud.

Downloads (Right-click, and use "Save As")

Development Version (1.7.0) **46kb, Uncompressed with Plentiful Comments**

Lo-Dash v2.4.1

A utility library delivering consistency, [customization](#), [performance](#), & [extras](#).

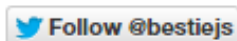
```
_.assign({ 'a': 1 }, { 'b': 2 }, { 'c': 3 });  
// → { 'a': 1, 'b': 2, 'c': 3 }  
_.map([1, 2, 3], function(n) { return n * 3; });  
// → [3, 6, 9]
```



Star 6,047



Fork 453



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Documentation

- [API Documentation](#)
- [DevDocs](#) – *a searchable interface for our documentation*

Download

Review the [build differences](#) & pick the one that's right for you.

- [Modern build \(minified\)](#)
For new environments like Chrome, Firefox, IE \geq 9, & Safari \geq 5.1
- [Compatibility build \(minified\)](#)
For new & old environments like IE \leq 8 & PhantomJS
- [Underscore build \(minified\)](#)

Příklad 5

UnderscoreJS



handlebars



Fork me on GitHub

Handlebars provides the power necessary to let you build **semantic templates** effectively with no frustration.

Handlebars is largely compatible with Mustache templates. In most cases it is possible to swap out Mustache with Handlebars and continue using your current templates. Complete details can be found [here](#).

Download: 2.0.0

[Download: runtime-2.0.0](#)

Getting Started

Handlebars templates look like regular HTML, with embedded handlebars expressions.

```
<div class="entry">
  <h1>{{title}}</h1>
  <div class="body">
    {{body}}
  </div>
```


Příklad 6

Handlebars

Backbone.js (1.1.2)

- » [GitHub Repository](#)
- » [Annotated Source](#)

Introduction

Upgrading

Events

- on
- off
- trigger
- once
- listenTo
- stopListening
- listenToOnce
- [Catalog of Built-in Events](#)

Model

- extend
- constructor / initialize
- get
- set
- escape
- has
- unset
- clear
- id
- idAttribute
- cid
- attributes
- changed
- defaults
- toJSON
- sync
- fetch
- save



BACKBONE.JS

Backbone.js gives structure to web applications by providing **models** with key-value binding and custom events, **collections** with a rich API of enumerable functions, **views** with declarative event handling, and connects it all to your existing API over a RESTful JSON interface.

The project is [hosted on GitHub](#), and the [annotated source code](#) is available, as well as an online [test suite](#), an [example application](#), a [list of tutorials](#) and a [long list of real-world projects](#) that use Backbone. Backbone is available for use under the [MIT software license](#).

You can report bugs and discuss features on the [GitHub issues page](#), on Freenode IRC in the [#documentcloud](#) channel, post questions to the [Google Group](#), add pages to the [wiki](#) or send tweets to [@documentcloud](#).

Backbone is an open-source component of [DocumentCloud](#).

Downloads & Dependencies (Right-click, and use "Save As")

Development Version (1.1.2)

60kb, Full source, tons of comments

Production Version (1.1.2)

6.5kb, Packed and gzipped

[\(Source Map\)](#)

Příklad 7

Backbone

Respond.js

A fast & lightweight polyfill for min/max-width CSS3 Media Queries (for IE 6-8, and more)

- Copyright 2011: Scott Jehl, scottjehl.com
- Licensed under the MIT license.

The goal of this script is to provide a fast and lightweight (3kb minified / 1kb gzipped) script to enable [responsive web designs](#) in browsers that don't support CSS3 Media Queries - in particular, Internet Explorer 8 and under. It's written in such a way that it will probably patch support for other non-supporting browsers as well (more information on that soon).

If you're unfamiliar with the concepts surrounding Responsive Web Design, you can read up [here](#) and also [here](#)

[Demo page](#) (the colors change to show media queries working)

☞ Usage Instructions

1. Craft your CSS with min/max-width media queries to adapt your layout from mobile (first) all the way up to desktop



Project Information

★ Starred by 1659 users
[Project feeds](#)

Code license
[MIT License](#)

Labels
javascript, html5, ie

👤 Members
[remysh...@gmail.com](#)

Usage

1. [download html5shiv](#) (zip file)
2. Insert minified distribution shiv in `<head>` element (after or before your CSS):

```
<!--[if lt IE 9]>  
<script src="dist/html5shiv.js"></script>  
<![endif]-->
```

License

Dual licensed under the MIT or GPL Version 2 licenses

Background

Full original, uncompressed source available here: <https://github.com/aFarkas/html5shiv>

Source code adds new HTML5 elements (which is simple code), but also supports printing HTML5 elements *and* includes the default styles for HTML5 elements, like block on article and section.

Getting it to work in the browser was easy, @jon_neal and afarkas made IE actually print HTML5 elements - these guys are to take all the credit. Please take a moment to thank them!

To use this script, [download the html5shiv](#) and roll it in to your own code (ideally minified). It must be included before the `<body>` element (i.e. in the `<head>`) but doesn't matter if it appears before or after the CSS - but for the sake of performance, it would make better sense to include the CSS first *then* this script.

shiv or shim?

Common question: what's the difference between the `html5shiv` and the `html5shiv`? **Answer:** nothing, one has an *m* and one has a *v* - that's it.

“An indispensable tool.”

— Bruce Bowman, sr. product manager, Edge Tools & Services

Modernizr is a JavaScript library that detects HTML5 and CSS3 features in the user's browser.

Why use Modernizr?

Taking advantage of cool new web technologies is great fun, until you have to support browsers that lag behind. Modernizr makes it easy for you to write conditional JavaScript *and* CSS to handle each situation, whether a browser supports a feature or not. It's perfect for doing progressive enhancement easily.

How it works

Modernizr runs quickly on page load to detect features; it then creates a JavaScript object with the results, and adds classes to the `html` element for you to key your CSS on. Modernizr supports dozens of tests, and optionally includes [YepNope.js](#) for conditional loading of external `.js` and `.css` resources.

Check out the [full list of features](#) that Modernizr

Download Modernizr 2.8.3

Use the commented, uncompressed Development version to develop with and learn from.

Then, dive into the Production build tool and pick just the tests you need!

[View documentation](#)



DEVELOPMENT
Uncompressed, 42 Kb



PRODUCTION
Configure Your Build

Get started with Modernizr

While Modernizr gives you finer control over the experience through JavaScript-driven feature detection, it is important to continue to use best practices throughout your development process. Use progressive enhancement wherever you can, and don't sacrifice accessibility for convenience or performance.

- [Documentation: Getting started](#)
- [Taking Advantage of HTML5 and CSS3 with Modernizr](#), Faruk Ateş
- [How to use Modernizr](#), Inayaili de León
- [Modernizr: front-end development done right](#), Ryan Seddon
- [wiki] [The Undetectables: features that cannot be detected](#)
- [wiki] [Cross-browser Polyfills](#)



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Latest news

April 2nd, 2013

[Modernizr 3, Stickers & Diversity](#)

News on v.3, stickers, and a message from the team.

PREVIOUS

January 7th, 2013

[Modernizr Policy on Browser Bugs and Feature Detects](#)

September 4th, 2012

[Modernizr 2.6.2 released](#)

July 19th, 2012

[Modernizr 2.6 released](#)

Retina graphics for your website

retina.js is an open source script that makes it easy to serve
high-resolution images to devices with retina displays

[📄 Download zip](#)[How it works ▼](#)

How it works

Děkuji za pozornost

Diskuze