10 best HTML5 practices

(for magic UI)

Goal: I'll make you a better web developer In the next 20 minutes.

License: Attribution Assurance

https://github.com/puppetMaster3/ModuleBU

Who am I?

| StrutsBooks - Struts \ × | |
|---|-------------------------------------|
| ← → C 🗋 wiki.apache.org/struts/StrutsBooks | |
| 👯 Apps 🏿 Control Panel 🔯 Contactology 🗅 Free Jav | vascript 🙉 WebPagetest T 🧠 configur |
| Struts Wiki Login | |
| StrutsBooks | |
| FrontPage RecentChanges FindPage HelpContents StrutsBooks | |
| Immutable Page Info Attachments More Actions: | |
| | |

Books about Struts (by release date, newer first)

- Apache Struts 2 Web Application Development by Dave Newton (Packt Publishing | English) (Octo-
- Struts Websites mit Struts 1.2 & 1.3 und Ajax effizient entwickeln (German) by Matthias Weßende
- Pro Apache Struts with Ajax by John Carnell, Rob Harrop and Kunal Mittal (Ed.) (2006)
- Beginning Apache Struts: From Novice to Professional by Arnold Doray (February 2006)
- Searning Jakarta Struts 1.2: a concise and practical tutorial by Stephan Wiesner (August 2005)
- Struts : les bonnes pratiques pour des développements web réussis (Français) par Vic Cekvenich
- Sakarta Struts Cookbook by Bill Siggelkow (February 2005)
- Sakarta Struts Live by Richard Hightower (2004). The PDF version is available for free.
- Struts Survival Guide: Basics to Best Practices by Srikanth Shenoy, Nithin Mallya (February 2004)
- Struts: The complete reference by James Holmes (April 2004)
- Sakarta Struts for Dummies by Mike Robinson, Ellen Finkelstein (March 2004)
- Pro Jakarta Struts, Second Edition by John Carnell, Rob Harrop (March 2004)
- Struts Recipes by George Franciscus, Danilo Gurovich (July 2004)
- Struts Websites effizient entwickeln (German) by Matthias Weßendorf (November 2004)
- Struts Best Practices (German) by Vic Cekvenich, Wolfgang Gehner (June 2004)
- Struts ge-packt (German) by Michael Albrecht and Manfred Wolff (July 2004)
- Salaria Struts Pocket Reference by Chuck Cavaness, Brian Keeton (June 2003)
- Professional Jakarta Struts by James Goodwill, Richard Hightower (September 2003)
- Professional Struts Applications: Building Web Sites with Struts. Object Relational Bridge, Lucene
- Struts by James Turner, Kevin Bedell (June 2003)
- Struts. Java Framework f
 ür Webanwendungen (German) by Sven Haiges, Adam Bien, Peter Ro
 ßt
- Programming Jakarta Struts by Chuck Cavaness (November 2002)
- Struts In Action by Ted Husted, Cedric Dumoulin, George Franciscus, and David Winterfeldt; Fore
- Struts Kick Start by James Turner, Kevin Bedell (December 2002)
- Mastering Jakarta Struts by James Goodwill (September 2002)
- The Struts Framework: Practical Guide for Java Programmers by Sue Spielman (October 2002)
- First Struts book is available for free. Vic Cekvenich Sept. 2001 (1st Struts Book).

10 HTML5 good practices?

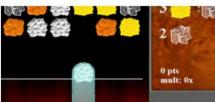
- #6. DOM UI
- 1: Speed
- 2: IDE
- 3: Compiler
- 4: Loader
- 5: SEO deep link

- 6
- 7: Pro animation
- 8: Ajax(?MVC)
- 9. UI & Cross platform
- 10: Deployment



Demos

Mechalchemist Play now!



This game is a money idol exchanger clone. To play use the 'a' to move the probe left, 'd' to move the probe right, the 's' arrow to take a stone and the 'w' arrow to drop it. Your goal is to make the stone disappear. Use the conversion table at the right. The probe can store any number of stone but all from the same kind.

Collision Demo Play now!



This is a simple demo for the collision detection, it's not a game! Whenever a red square hits the blue one it explodes. You can move the blue square with the a,s,d,w keys.

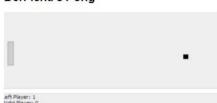
First tutorial Demo Play now!



This is the result of the first tutorial so keep in mind that it's a very simple example, not a full game. It's a shoot'em up. Use the keys 'a', 'w', 'd' and 's' to make the spaceship move and 'k' to shoot. To have a playable frame rate you better use a recent browser, Safari, Chrome or Firefox whith Tracemonkey enabled.

Other people's Demos

DerFichtl's Pong



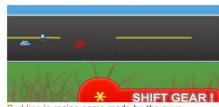
DerFichtl published a pong clone made with gameQuery here.

raist's HoneyBlaster



raist is working on a port of his sideshooter HoneyBlaster.

Vertigo Project's Red Line



Red line is racing game made by the guys at Vertigo Project.

Yann Michalski's iMemo



Level 1



Matt Pelham's Brain Snackers



Matt Pelham has started working on Brain

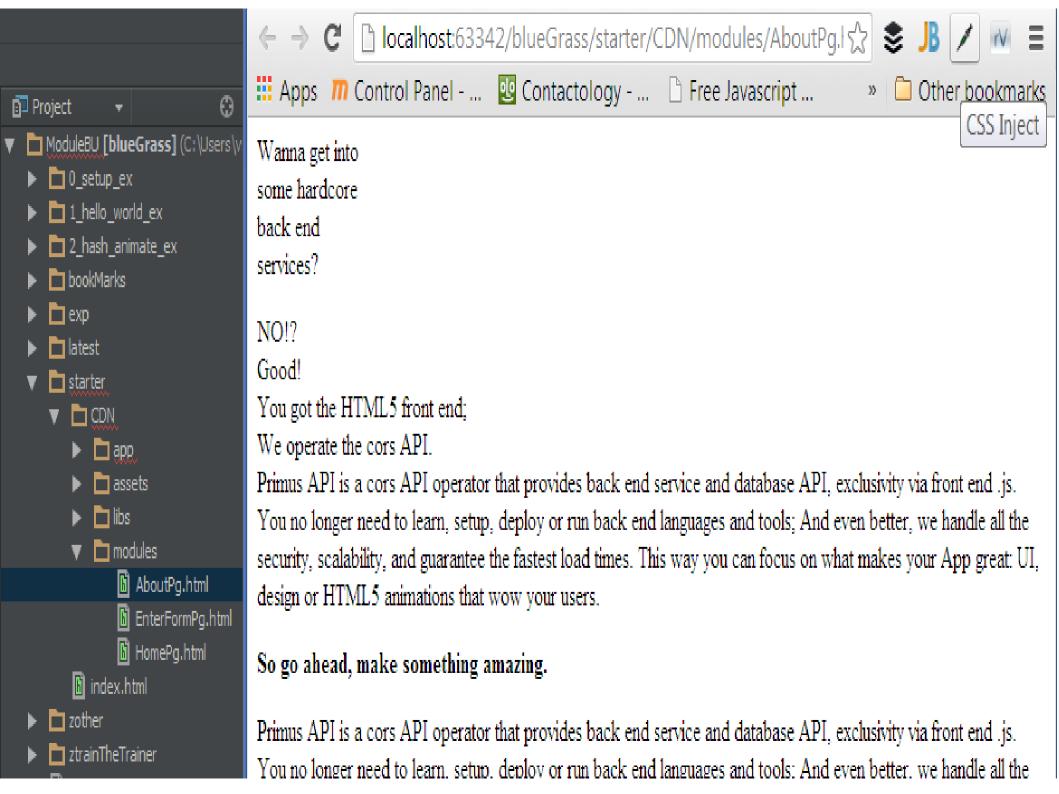
Orangebus' Christmas game



Orangebus used gameQuery to make



```
ModuleBU [blueGrass] (C:\Users\vic\Documents\GitHub\ModuleBU)
           console.log('version 0.001a')
                                                                                                0 setup ex
           ModuleMA.moduleDir = CDN/modules/
                                                                                                1 hello world ex
10
                                                                                                  2 hash animate ex
11
                                                                                                  bookMarks
           AppBU.route(this.onRoute.bind(this))
12
                                                                                                  n exp
           AppBU.initPosSignal().add(onScroll)
13
                                                                                                  □ latest
           AppBU.initMouseSignal().add(onMouse)
14
                                                                                                ▼ 🗖 starter
15
                                                                                                   ▼ 🗖 CDN
           ModuleMA.domAdd('AboutPg.html',kontainer)
                                                                                                     ▼ 🗖 app
16
                                                                                                           🏰 main.js
17
                                                                                                          main.js.map
18
                                                                                                          ாத் main.ts
19
      function onScroll(cv) {
                                                                                                          Mgr.js
           console.log(<u>cv</u>)
20
                                                                                                          Mgr.js.map
           var el = document.getElementById('someItem')
21
                                                                                                          II Mgr.ts
           var vis:boolean=ModuleMA.isInView(el.getBoundingClientRect(), cv)
                                                                                                        assets a
23
           console.log(vis)
                                                                                                        libs
24
                                                                                                     ▼ 🖿 modules
25
                                                                                                          M AboutPg.html
                                                                                                          EnterFormPg.html
26
     function onRoute(hash) {
                                                                                                          (ii) HomePg.html
27
           console.log(<u>hash</u>)
                                                                                                     index.html
           ModuleMA.domRem(kontainer,0)
28
                                                                                                  zother
29
           ModuleMA.domAdd('HomePg.html',kontainer, onLoadedBindTemplate)
                                                                                                  ztrainTheTrainer
30
                                                                                                  gitignore.
31
                                                                                                   n grass.jpg
```



(bad) alternative is .js components, canvas or non modular app

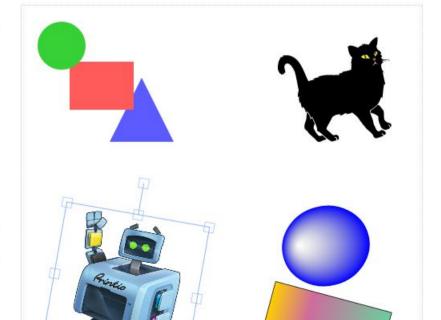
Javascript HTML5 canvas library

Fabric provides interactive object model on top of canvas element

Fabric also has SVG-to-canvas (and canvas-to-SVG) parser



Using Fabric.js, you can create and populate objects on canvas; objects like simple geometrical shapes



or complex shapes consisting of hundreds or thousands of simple paths

or good old images

You can give any shape a gradient

#1. CDN

YSlow

YSlow analyzes web pages and suggests ways to improve their performance based on a set of rules for high performance web pages. Feature highlights:

Install YSlow for Chrome

- Grades web page based on one of three predefined ruleset or a user-defined ruleset;
- It offers suggestions for improving the page's performance;
- · Summarizes the page's components;
- Displays statistics about the page;
- Provides tools for performance analysis, including Smush.it™ and JSLint.

Availability













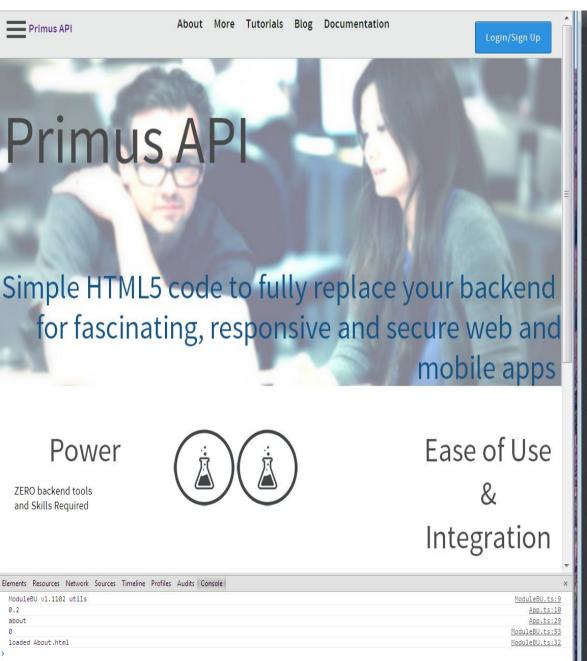


Source Code

» View YSlow Ruleset Limitations across several browsers/platforms.

(bad) alternative: PHP or non-CDN

#2 WebStorm

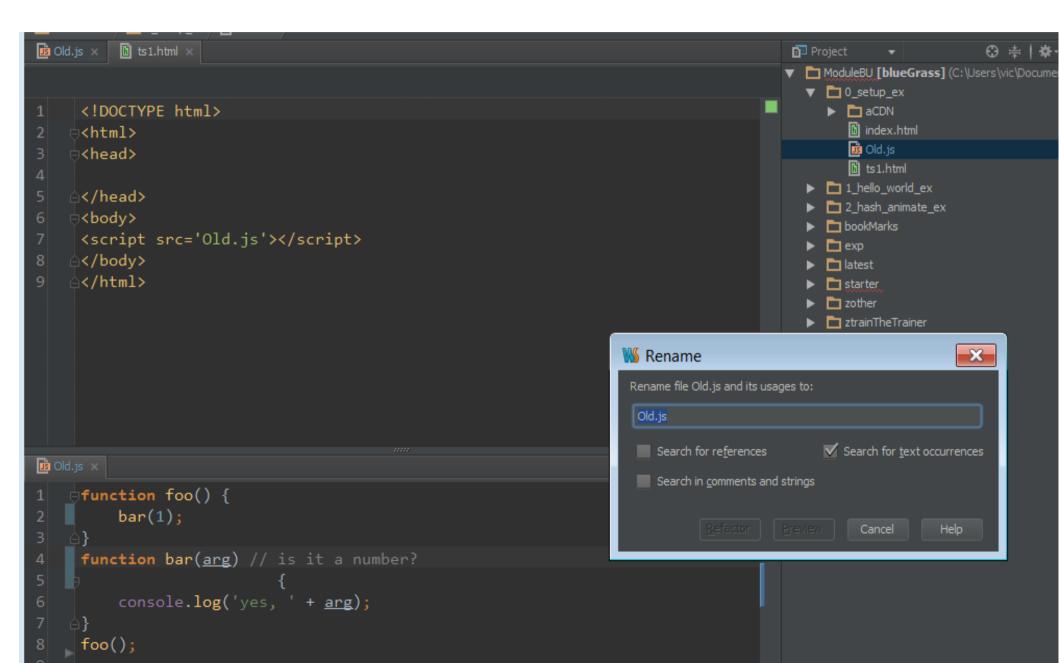


```
▼ ModuleBU [blueGrass] (
      @import '//scdn.primus.netdna-cdn.com/latest/css/SourceCodePro/stvleshe
      @import 'http://localhost:63342/ModuleBU/latest/css/topcoat-mobile-light
                                                                                           ▶ 🗖 exp
      @import 'http://localhost:63342/ModuleBU/latest/css/grid';
                                                                                           ▼ istarter
                                                                                             ▼ 🗖 CDN
      *{box-sizing: border-box;}
                                                                                                       Mgr.js.n
     @brand-primary:
     @hilite:
     @background1:
     @color1:
     @backgroundR1:
     @colorR1:
24 ■ @background2:
                                                                                           Exter 🐧 Paste
      @color2:
     @color3:
     @color4:
      @radius:
                                                                                                Mark as Plain Text
       sideNav { //left nav
                                                                                                 🛜 Create 'index.html
                                                                                                 Open in Browsei
        -webkit-border-radius: @radius;
        border-radius: @radius;
                                                                                                 Open on GitHub
                                                                                                 🔊 Create Gist..
```

(bad) alternative: work in file system

or text editor

#3. TypeScript/Less



```
function foo() {
           bar(1);
Argument type Number is not assignable to parameter type String
      function bar(arg:string) // is it a number?
           console.log('yes, ' + arg);
      foo();
```

```
// makes
     @import '//scdn.primus.netdna-cdn.com/latest/css/SourceCodePro/stylesheet.css'; //font
     @import 'http://localhost:63342/ModuleBU/latest/css/topcoat-mobile-light';
                                                                                     //controls
     @import 'http://localhost:63342/ModuleBU/latest/css/grid';
                                                                                    // grid
     //resets:
     //paul irish
     *{box-sizing: border-box;}
     //@page-header-nav-height: 4.375rem;
13 📮
     @brand-primary: #ec514e;
14
     @hilite:
                         #0380e8;
     // theme:
     @background1:
17
                        #e5e9e8;
     @color1:
                        #0b0b0b;
18
     @backgroundR1:
                        #454545:
20 -
     @colorR1:
                        #e5e9e8:
22 -
     @background2:
                        #F4F4F4;
     @color2:
                        #191919;
25
     @color3:
                        #a4a4a4;
26
     @color4:
                        #747474:
     @radius:
                         .2rem;
```

10 11 12

15 16

19

21

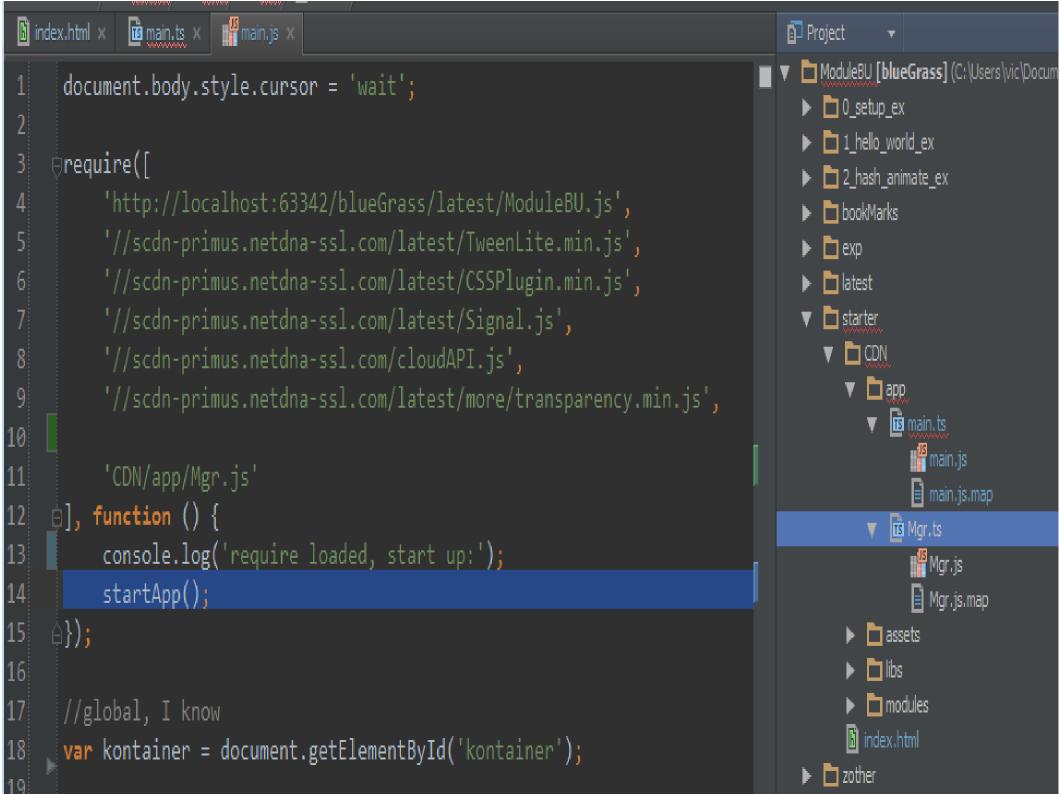
23

27 28

29

#4. Loader

```
Project
            main.js X
                                                                                                                         ▼ ModuleBU [blueGrass] (C:\Users\vic
 ntml body script
                                                                                                                           ▼ 🛅 0_setup_ex
     <!DOCTYPE html>
                                                                                                                              ▶ aCDN
                                                                                                                                index.html
     <html>
                                                                                                                                Old.js
     Khead>
                                                                                                                                ts1.html
          <meta charset='utf-8'>
                                                                                                                           ▶ 🗖 1 hello world ex
          <meta name='viewport' content='width=device-width,initial-scale=1'>
                                                                                                                            2_hash_animate_ex
          <meta name='apple-mobile-web-app-capable' content='yes'>
                                                                                                                           ▶ bookMarks
          <!-- attribution license: derived from http://raw.github.com/puppetMaster3/ModuleBU -->
                                                                                                                           ▶ ☐ exp
          <link href='CDN/assets/bgStyle.css'</pre>
                                                rel='stylesheet'>
                                                                                                                           ▶ 🖿 latest
                                                                                                                           ▼ 🛅 starter
         <title>bG</title>
                                                                                                                              ▼ 🗀 CDN
                                                                                                                                ▼ 🗖 app
     </head>
                                                                                                                                  ▼ 📠 main.ts
     <body>
                                                                                                                                       main.js
    main.js.map
     <!-- SLIDER -->
                                                                                                                                  ▶ 🖪 Mgr.ts
    id='slider' class='sideNav'...>
                                                                                                                                assets
                                                                                                                                ▶ 🗖 libs
     Kmain id='kontainer' >
                                                                                                                                ▶ 🖿 modules
                                                                                                                                index.html
     </main>
                                                                                                                           ▶ ☐ zother
                                                                                                                            ztrainTheTrainer
40
                                                                                                                              gitignore.
     <script async data-main='CDN/app/main' src='//scdn-primus.netdna-ssl.com/latest/require.min.js'></script>
                                                                                                                              grass.jpg
     </body>
                                                                                                                              README.md
     </html>
```



#5. App Buss / Router/Hasher/SEO (more like entity/system)

```
exp
function startApp() {
                                                                                             latest
     console.log('version 0.001a')
                                                                                              CSS 🗀 CSS
     ModuleMA.moduleDir = 'CDN/modules/'
                                                                                                media
                                                                                              more 🗖 more
                                                                                                1(IS CSSPlugin.min.js
     //set up route/hash/ctrl
                                                                                                ModuleBU.js
     AppBU.route(this.onRoute.bind(this))
                                                                                                ModuleBU.js.map
     AppBU.initPosSignal().add(onScroll)
                                                                                                ModuleBU.ts
     AppBU.initMouseSignal().add(onMouse)
                                                                                                1(III)
010 require.min.js
     // just for now
                                                                                                🗓 Signal.js
     ModuleMA.domAdd('AboutPg.html',kontainer)
                                                                                                Signal.js.map
                                                                                                ाँ Signal.ts
                                                                                                105 TweenLite.min.js
                                                                                             starter
function onScroll(<u>cv</u>) {...}
                                                                                             🔻 🗖 CDN
function onRoute(hash) {
                                                                                                     nain.ts
     console.log(hash)
                                                                                                     🏿 Mgr.ts
```

```
d<html>
    ⊕<head...>
12
    ⊜<body>
13
    cheader class='topcoat-navigation-bar grid '>
14
        <span class='topcoat-navigation-bar__item left unit w-1-5'>
15
           <a href='#' >
16
               <img class='mid' src='//scdn.primus.netdna-cdn.com/latest/css/topcoat/img/hamb</pre>
17
               <br/>
<br/>
d'>bG</b></a>
18
        </span>
19
20
        <span class='topcoat-navigation-bar__item center unit w-3-5'>
21
            <b>
22
               <a href='#about'>About</a>
23
               <a href='#home' >Home</a>
24
               <a href='#form' >Form</a>
25
           </b>
26
        </span>
27
28
        <span class='topcoat-navigation-bar item right unit w-1-5'>
29
           <button id='login' class='topcoat-button--cta' >Login/Sign Up</button>
30
        </span>
31
   △</header>
32
    <!-- SLIDER -->
33
    ⊕<nav id='slider' class='sideNav'...>
36
37
    ⊕<main id='kontainer' >
```

10

```
¬function startApp() {

          console.log('version 0.001a')
          ModuleMA.moduleDir = 'CDN/modules/'
10
11
          //set up route/hash/ctrl
12
13
          AppBU.route(this.onRoute.bind(this))
          AppBU.initPosSignal().add(onScroll) // look bu, no classes, just util functions
14
          AppBU.initMouseSignal().add(onMouse)
15
          // just for now
16
          ModuleMA.domAdd('AboutPg.html',kontainer)
17
    _∆}
18
19
    function onScroll(cv) {
20
          console.log(cv)
          var el = document.getElementById('someItem')
21
22
          var vis:boolean=ModuleMA.isInView(el.getBoundingClientRect(), cv)
23
24
25
          console.log(vis)
    _≙}
26
    function onRoute(hash) {
27
          console.log(hash)
          ModuleMA.domRem(kontainer,0) //#6
28
          ModuleMA.domAdd('HomePg.html',kontainer, onLoadedBindTemplate)
29
30
    _≙}
31
    function onLoadedBindTemplate() {...}
32
43
44

function onMouse(mx,my) {

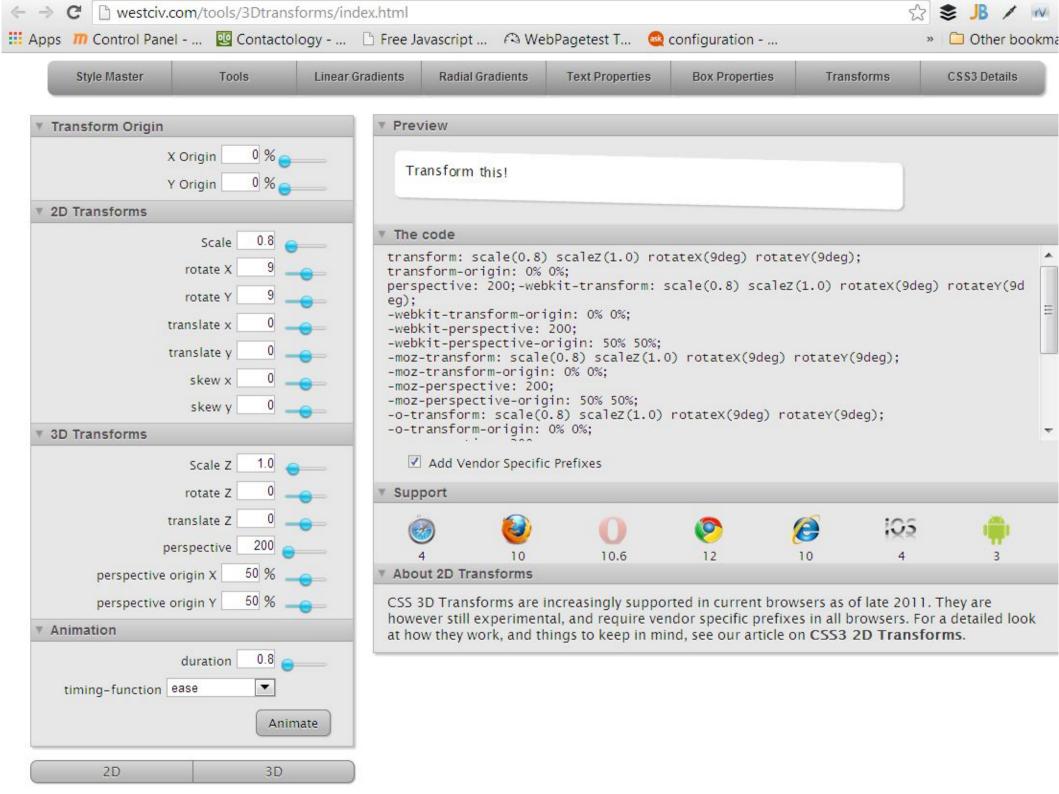
45
          console.log(\underline{mx},\underline{my})
46
    47
```

(bad) alternative: not SPA

• ?

#7. Animation Lib

```
....>
</head>
<body>
|div id="banner">
    <div class="panel" id="panel1">
        <h1>hungry?</h1>
    </div>
    <div class="panel" id="panel2">
        <h2>How about now?</h2>
    </div>
    <div class="panel" id="panel3">
        <div id="info">
            <h1>Burger Boy</h1>
            <l
                Free delivery in NYC
                Open 24hrs
            <div id="orderNow">order now</div>
        </div>
     </div>
</div>
</body>
<script src="http://cdnjs.cloudflare.com/ajax/libs/gsap/latest/TweenLite.min.js"></script>
<script src="http://cdnjs.cloudflare.com/ajax/libs/gsap/latest/plugins/CSSPlugin.min.js"></script>
<script>
    TweenLite.to(document.getElementById('panel2'),1.5,{top:0})
    TweenLite.to(document.getElementById('panel3'),2.5,{top:0})
 K/script>
 </html>
```



Animation choices:

- Animate.css
- Classes.js
- Bonzo.js
- GSAP/Greensock
 - Uses:
 - Sliders
 - Scroll
 - Creative!

(bad) alternative: static site or not using a CSS animation lib

Bad: sprinkle FX, non-creative

#8. BaaS/API

| # Cross-Origin R | Resource Sharing | - Candidate Recommendation |
|------------------|------------------|----------------------------|
|------------------|------------------|----------------------------|

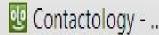
Method of performing XMLHttpRequests across domains

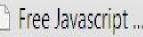
| ≛Usage stats: | Global | | | | |
|------------------|--------|--|--|--|--|
| Support: | 75.51% | | | | |
| Partial support: | 13.52% | | | | |
| Total: | 89.03% | | | | |

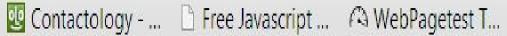
| Show all versions | IE | Firefox | Chrome | Safari | Opera | iOS Safari | Opera Mini | Android Browser | Blackberry Browser | IE Mobile |
|-------------------|------|---------|--------|--------|-------|---------------|---------------|--------------------|-----------------------|-----------|
| | | | | | | | | 2.1 | | |
| | | | | | | 3.2 | | 2.2 | | |
| | | | | | | 4.0-4.1 | | 2.3 | | |
| | 8.0 | | | | | 4.2-4.3 | | 3.0 | | |
| | 9.0 | 23.0 | | 5.1 | | 5.0-5.1 | | 4.0 | | |
| | 10.0 | 24.0 | 29.0 | 6.0 | | 6.0-6.1 | | 4.1 | 7.0 | |
| Current | 11.0 | 25.0 | 30.0 | 7.0 | 17.0 | 7.0 | 5.0-7.0 | 4.2- 4.3 | 10.0 | 10.0 |
| Near future | | 26.0 | 31.0 | | 18.0 | | | 4.4 | | |
| Farther future | | 27.0 | 32.0 | | | | | | | |

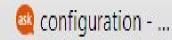














How It Works

Pricing

Developers

Showcase

Network

Blog



Easy to Use

Simple API that allows you to build real-time apps in minutes

```
// listen to events
                                    // send events
PUBNUB.subscribe({
                                    PUBNUB.publish({
   channel: "my_channel",
                                       channel: "my_channel",
   message: function(m){alert(m)}
                                      message: "Hello World"
```

🔛 Apps 🎹 Control Panel - ... 💩 Contactology - ... 🗋 Free Javascript ... 🙉 WebPagetest T... 💩 configura



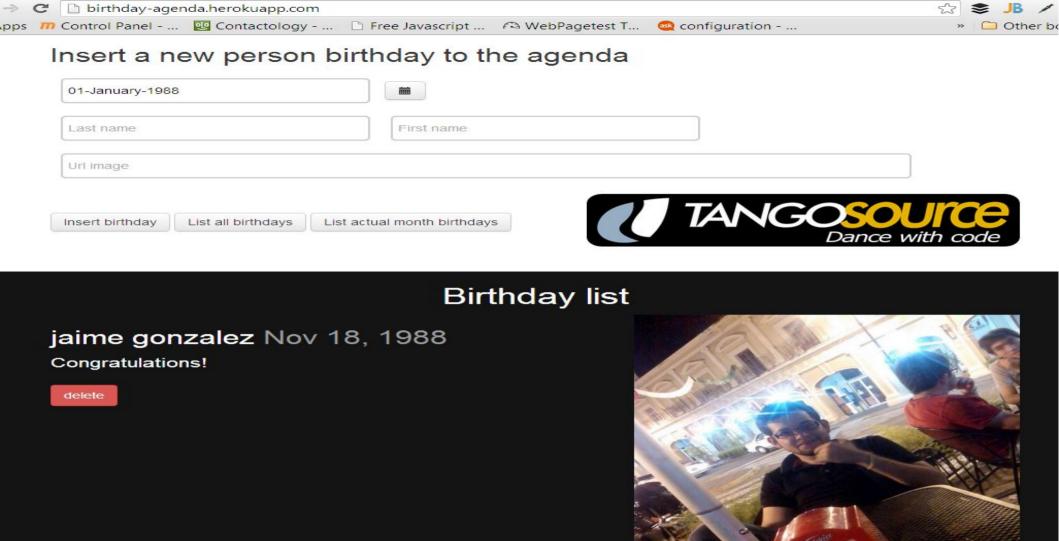
Android iPhone WP7, Apps.

How To Quickly Build A CRUD-capable HTML 5 **Back End**

By Vic Cekvenich

This article will show you how how to write a pure HTML5 application that does database updates without you, the front end developer / HTML designer having to learn, setup or use any back end system. So no ASP, JSP, PHP, Ruby or Python needed to do HTML forms or data lists that C.R.U.D (create read update delete). You can turn your prototypes into real apps ready to deploy (it can run on any plain HTTP server and even CDN if you wish low latency. Note that CDN's don't support any back end, including PHP, they do just pure HTML assets only).

Step 0: We will use jQuery and a local HTTP server for develop so we need to setup first. You may already have a local http server running, if you do, ship to next step. To install a local HTTP server, python has a module, there are many others. You can google on how to run a local HTTP server.



Gerardo Castro Sep 28, 1981 Congratulations!





10 HTML5 good practices!

- 1: Speed: CDN/Server
- 2: WebStorm
- 3. TypeScript/Less
- 3: Loader/Require.js
- 5: Router/Hasher AppBU

- 6: ModuleMA DOM add/rem modules
- 7: Animation Lib
- 8: BaaS/API/CORS + simple binding
- 9.
- 10.

8b/part II: simple template binding w/o MVC ex:

```
2_hash_animate_ex
⊝<div id='home' class='pad'>
                                                                                      bookMarks 🗖
                                                                                       🗖 ехр
     transparency DOM:
                                                                                      latest 🗖
     ▼ 🗖 starter
         ⟨li⟩
                                                                                        ▼ □ CDN
             <span data-bind='name'></span>, <span data-bind='city'></span>
                                                                                          ▶ □ app
         ⟨/li⟩
                                                                                          assets
                                                                                          ▶ 🗀 libs
     ▼ modules
                                                                                               AboutPg.html
                                                                                               🛭 EnterFormPg.html
Àk/div>
                                                                                               HomePg.html
                                                                                          index.html
```

```
function onScroll(cv) {...}
                                                                                                ▶ 🖪 main.ts
                                                                                                ▶ 🖪 Mgr.ts
function onRoute(hash) {
                                                                                              assets 🗖
     console.log(hash)
                                                                                                ☐ libs
     ModuleMA. domRem(kontainer,0) //#6
                                                                                                modules
     ModuleMA.domAdd('HomePg.html',kontainer, onLoadedBindTemplate)
                                                                                                   AboutPg.html
                                                                                                   🛭 EnterFormPg.html
                                                                                                   HomePg.html
                                                                                              index.html
function onLoadedBindTemplate() {
                                                                                         zother
     var rows = [ //fake data that you should get via HTML5 CORS
                                                                                         ztrainTheTrainer
          { name: 'Jonny', city:'Stockholm' }
                                                                                           gitignore.
          ,{ name: 'Jonas', city:'Berlin' }
                                                                                            🗂 grass.jpg
                                                                                            README.md
                                                                                         External Libraries
     //transparency.js
     Transparency.render(document.getElementById('binding'), rows);
```

(bad) alternatives: Ajax/JSONP or not using BaaS (helps w/ CDN)

Nothing in HTML5 warns that your are doing HTML4.

#9. Topcoat + Phonegap

Topcoat

CSS for clean and fast web apps.

Demo

Benchmarks

Blog











Soooo Fast!

Performance is our #1 goal. Every component we design is benchmarked for performance. You can see our results.



Components Galore

We have the building blocks to get you up and running fast. Our growing set of components were born from CSS.



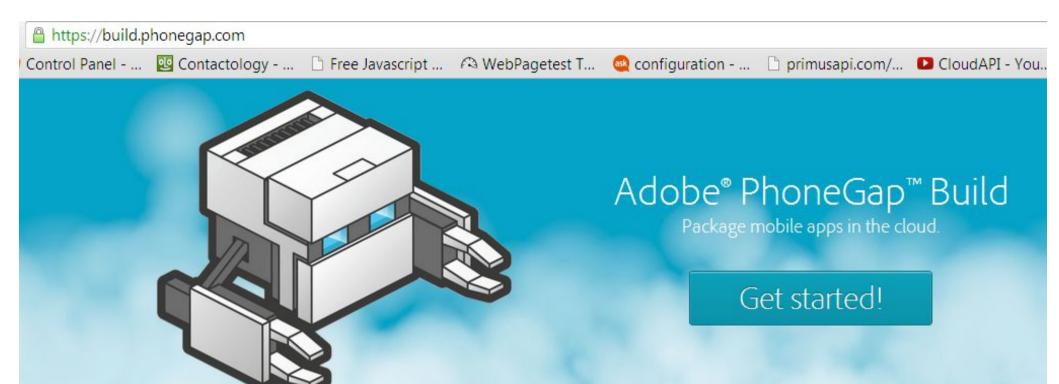
Themeable

Is that even a word? It should be! We love our theme, but we don't want to hit your brand over the head with it. Just add colors and voila!



BEM Architecture

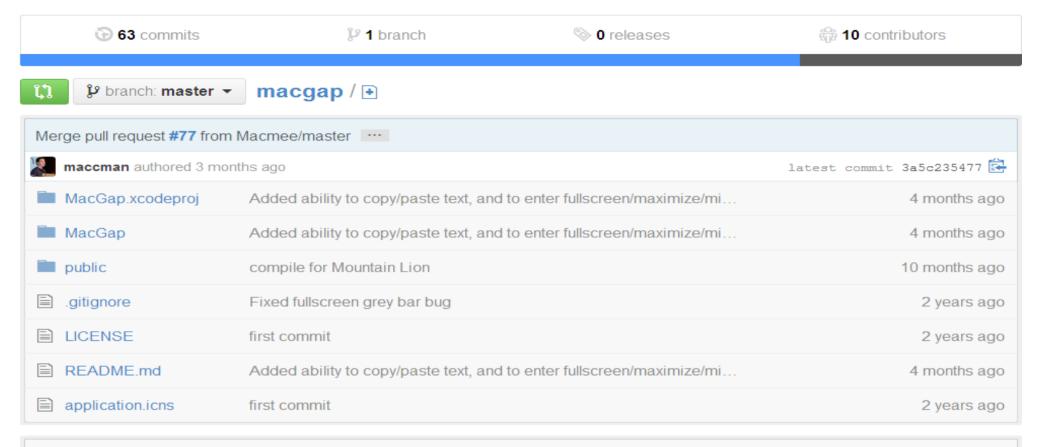
We believe CSS is ready for primetime. We are basing our architecture on BEM make your apps faster, less contextual and easier to manage.



Take the pain out of developing mobile apps.

Simply upload your HTML5, CSS, and JavaScript assets to the Adobe* PhoneGap* Build cloud service and we do the work of compiling for you.

Desktop WebKit wrapper for HTML/CSS/JS applications.



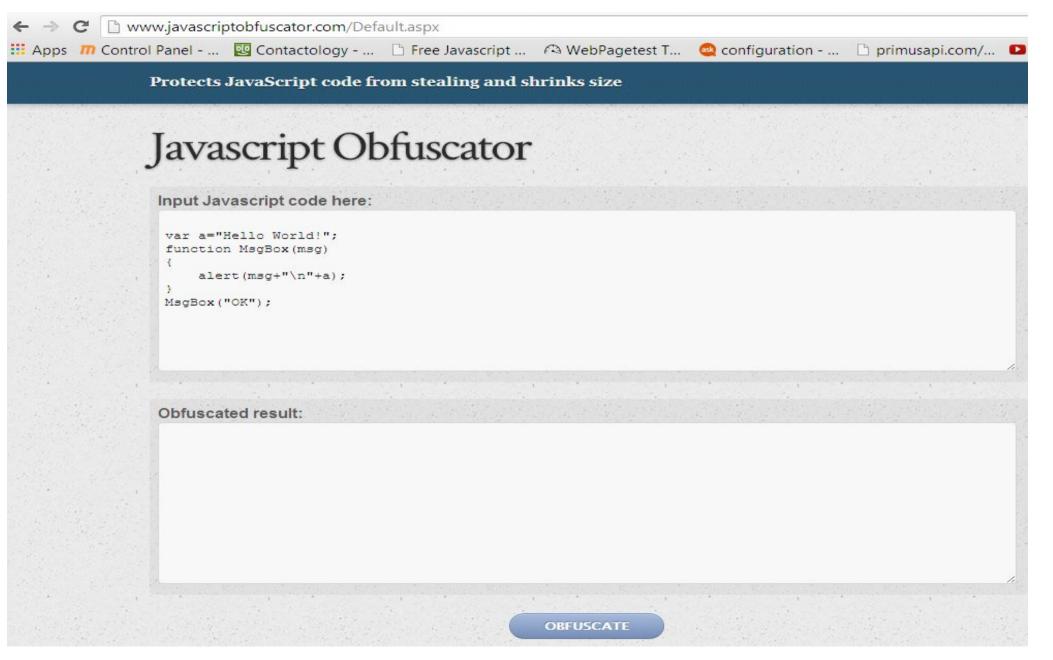
■ README.md

MacGap

The MacGap project aims to provide HTML/JS/CSS developers an Xcode project for developing Native OSX Apps that run in OSX's WebView and take advantage of WebKit technologies. The project also exposes a basic JavaScript API for OS integration, such as display Growl notifications. The MacGap project is extremely lightweight and nimble, a blank application is about 0.3mb.

(bad) alternative:
Pre-made components such as YUI
+
or UI in Java/Andorid or such.

#10 Obfuscate pro(paid) work



http://github.com/puppetMaster3/ModuleBU

- Alternative frameworks:
 - Ratchet
 - IUI
 - Semantic UI
 - Cardinal

http://github.com/puppetMaster3/ModuleBU

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@puppetMaster3

PrimusAPI.com

10 HTML5 good practices!

(http://github.com/puppetMaster3/ModuleBU)

- 1: Speed: CDN/Server
- 2: WebStorm
- 3. TypeScript/Less
- 3: Loader/Require.js
- 5: Router/Hasher AppBU

- 6: ModuleMA DOM add/rem modules
- 7: Animation Lib
- 8: BaaS/API/CORS + simple binding
- 9. Phonegap second
- 10: Deploy obfuscated