JQuery and the Missing Mobile Link

Mark Drew
Railo Consulting
Munich CFCamp 2011

Hi!

- Railo Consulting UK's CEO
  - Web Development Consultancy based in London, Zurich, New York and San Francisco
  - Excel at CFML application development, training, performance tuning
- ColdFusion & CFML Developer since '97 and Web developer since '94
- Involved in various CFML Frameworks, ORMs and IDE's
  - CFEclipse's (CFML IDE) Lead Developer
  - Reactor ORM Project Manager
  - ColdSpring (Dependency Injection) Contributor Contributor
  - Model Glue and ColdBox (MVC) Contributor
  - ColdBox Contributor

Agenda

Looking at JQuery Mobile
Then Looking into PhoneGap and how they can go together.

JQuery Mobile

JQUERY MOBILE

A “touch optimised” HTML5 Framework for building mobile websites and apps.

Looking at JQuery Mobile
Then Looking into PhoneGap and how they can go together.

Touch Optimised?

- Big enough to touch!
- No Typing
- No Mouse Over, Mouse Move
- Optimised Form Controls

UI Controls need to be big enough to touch.
Minimize the need for typing
No mouseover, mousemove events, instead you have events like swipe, swipeleft, swiperight, orientationchange, tap, taphold, etc.
Optimiseded Form Controls
(No the mouse isn't touching himself!!)

Mobile OS Support

iOS

android

BlackBerry

bada

Windows Phone

palm webOS

symbian

MeeGo

Mobile OS Support

Platform	Version	Native	Opera Mobile 8.5	Opera Mobile 8.65	Opera Mobile 9.5	Opera Mobile 10.0	Opera Mini 4.0	Opera Mini 5.0	Fennec 1.0	Fennec *1.1*	Ozone 0.9	Netfront 4.0	Phonegap 0.9
iOS	v2.2.1	B											A
	v3.1.3, v3.2	A						A					A
	v4.0	A						A					A
Symbian S60	v3.1, v3.2	C	C	C		B	C	B			C	C	
	v5.0	A	C	C		A	C	A					A
Symbian UIQ	v3.0, v3.1			C							C		
	v3.2				C						C		
Symbian Platform	*3.0*	A											
BlackBerry OS	v4.5	C					C	C					
	v4.6, v4.7	C					C	B					C
	v5.0	B					C	A					A
	v6.0	A						A					A
Android	v1.5, v1.6	A											A
	v2.1	A											A
	v2.2	A				*A*		*C*		*A*			A
Windows Mobile	v6.1	C	C	C	C	B	C	B				C	
	v6.5.1	C	C	C	A	A	C	A					
	v7.0	A				A	C	A					
webOS	1.4.1	A											A
bada	1.0	A											
Maemo	5.0	B				B			C	*B*			
MeeGo	*1.1*	*A*				*A*				*A*			

But I don't know JQuery!

You don't even need to know JavaScript to build a simple jQuery Mobile Web Site or App.

- If you know jQuery you will feel right at home, when it comes time to add dynamic interactions.
- But don't worry if you don't know any jQuery!

But I DO know JQuery!

!

Not really like JQuery in it's syntax, more like HTML than anything else. (more on that later)
But has a lot of config stuff that you can access in the standard JQuery way.

What does it give you?

- Pages & Dialogs
- Toolbars (Header & Footer bars)
- Button’s (Including a set of stock icons)
- Form Controls (Slider’s,Toggles, enhanced radio, checkbox, etc)
- List View Control

But what about the code?

simple.html

```
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>JQueryMobile Demo</title>
5      <script type="text/javascript" src="jquery-1.6.2.min.js"></script>
6      <script type="text/javascript" src="jquery.mobile-1.0a4.1.min.js"></script>
7      <link rel="stylesheet" href="jquery.mobile-1.0a4.1.min.css" />
8    </head>
9    <body>
10   </body>
11 </html>
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Line: 4 Column: 37 HTML Tab Size: 4

1) HTML5 Doctype

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2) jQuery Core JS

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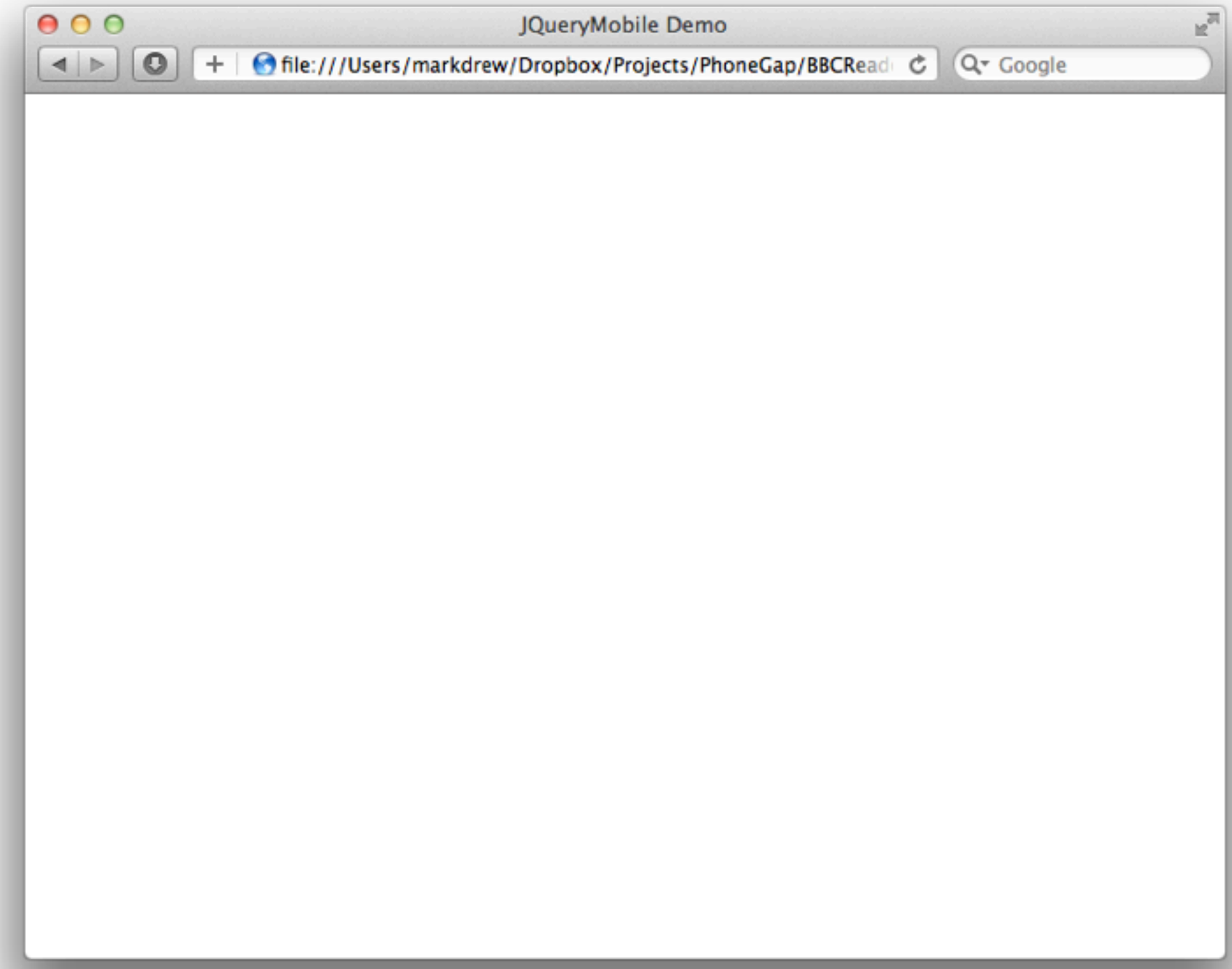
4) jQuery Mobile CSS

But what about the code?



Nothing there yet, we have to add some Data-Roles

Data-Role?

- Added by HTML5
- Starts with “data-”
- Custom attributes.

More here: http://ejohn.org/blog/html-5-data-attributes/

HTML5 added a feature called custom data attributes.
Any tag attribute that begins with data- may be used as a custom data storage associated with the element.
So instead of doing you can do ... and it will still pass as valid HTML5.
More at John Resig’s blog: http://ejohn.org/blog/html-5-data-attributes/

Railo JQueryMobile & Data-Role

- HTML Attribute: **data-role**
  - data-role="*page*"
  - data-role="*header*"
  - data-role="*footer*"
  - data-role="*navbar*"
  - data-role="*button*"
  - data-role="*listview*"
  - data-role="*controlgroup*"
  - data-role="*fieldcontain*"

Friday, 28 October 11

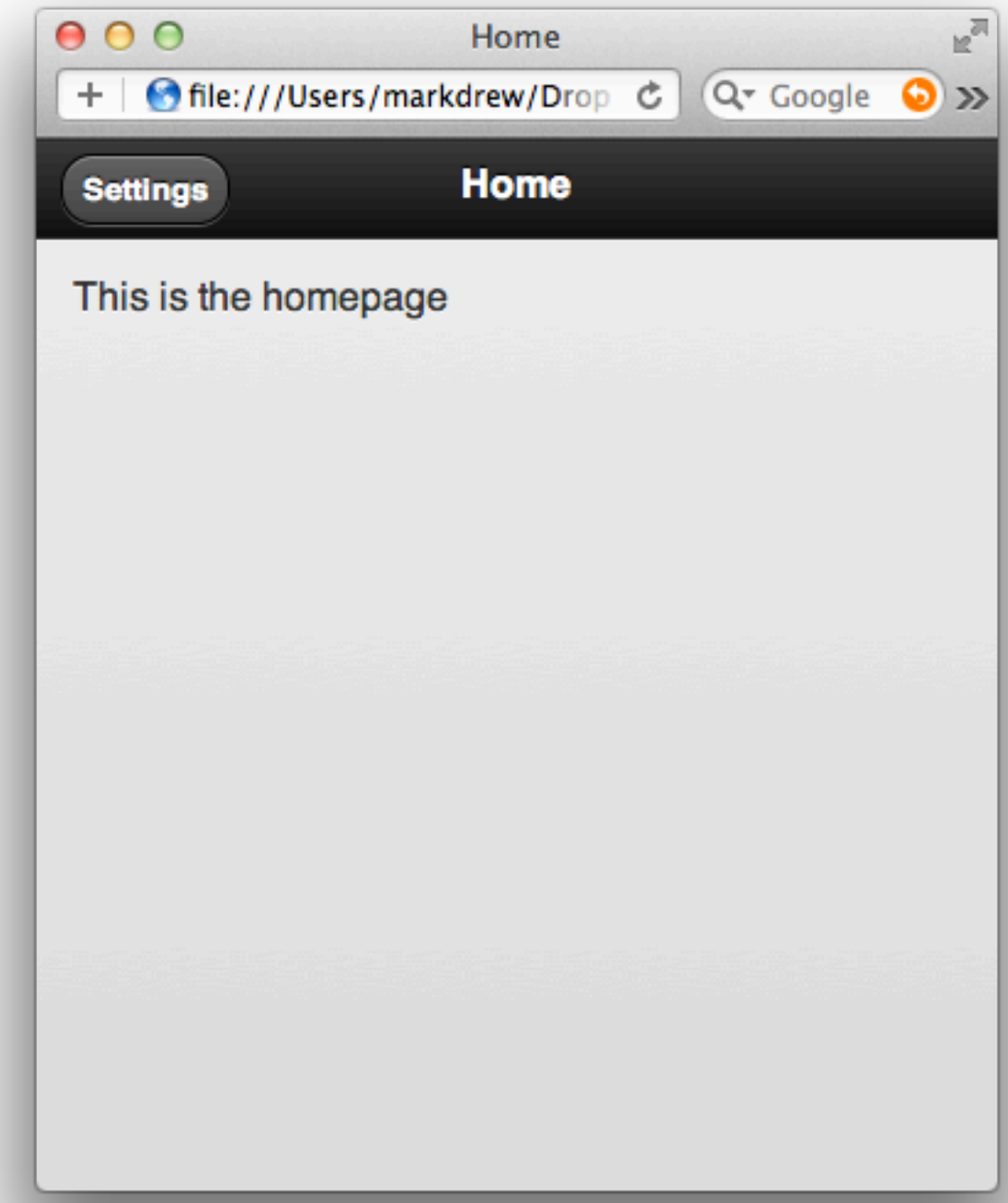
jQuery Mobile uses an HTML attribute called: data-role to associate an element with a widget. For example:
data-role="page" data-role="header" data-role="footer" data-role="navbar" data-role="button" data-role="listview" data-role="controlgroup" data-role="fieldcontain"

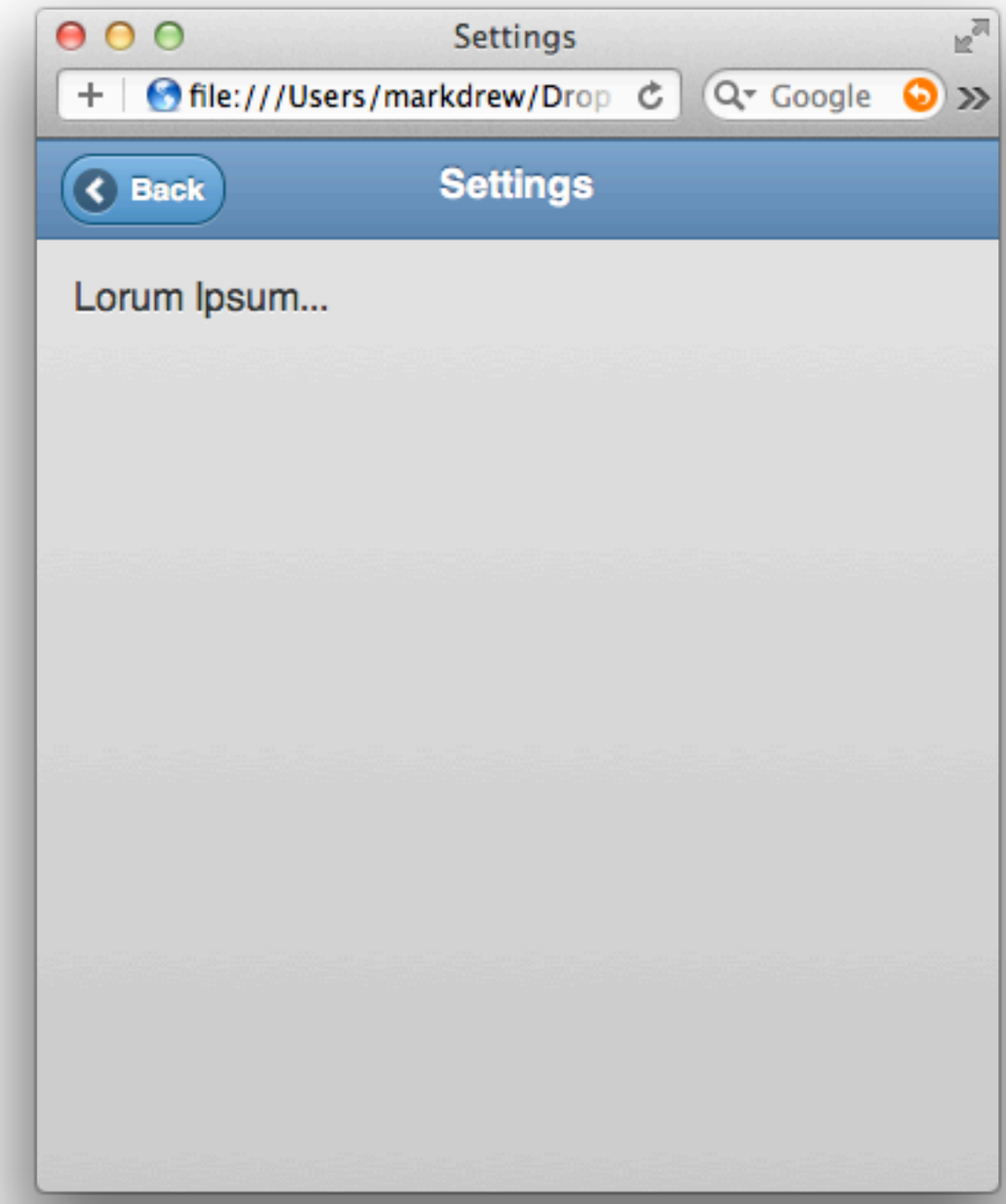
Pages

```
<div data-role="page" id="home">
   <div data-role="header">
      <h1>Home</h1>
      <a href="#settings" data-role="button">Settings</a></div>
   <div data-role="content">
      This is the homepage
   </div>
</div>
<div data-role="page" id="settings" data-theme="b">
   <div data-role="header">
      <h1>Settings</h1>
   </div>
   <div data-role="content">
      Lorum Ipsum...
   </div>
</div>
```

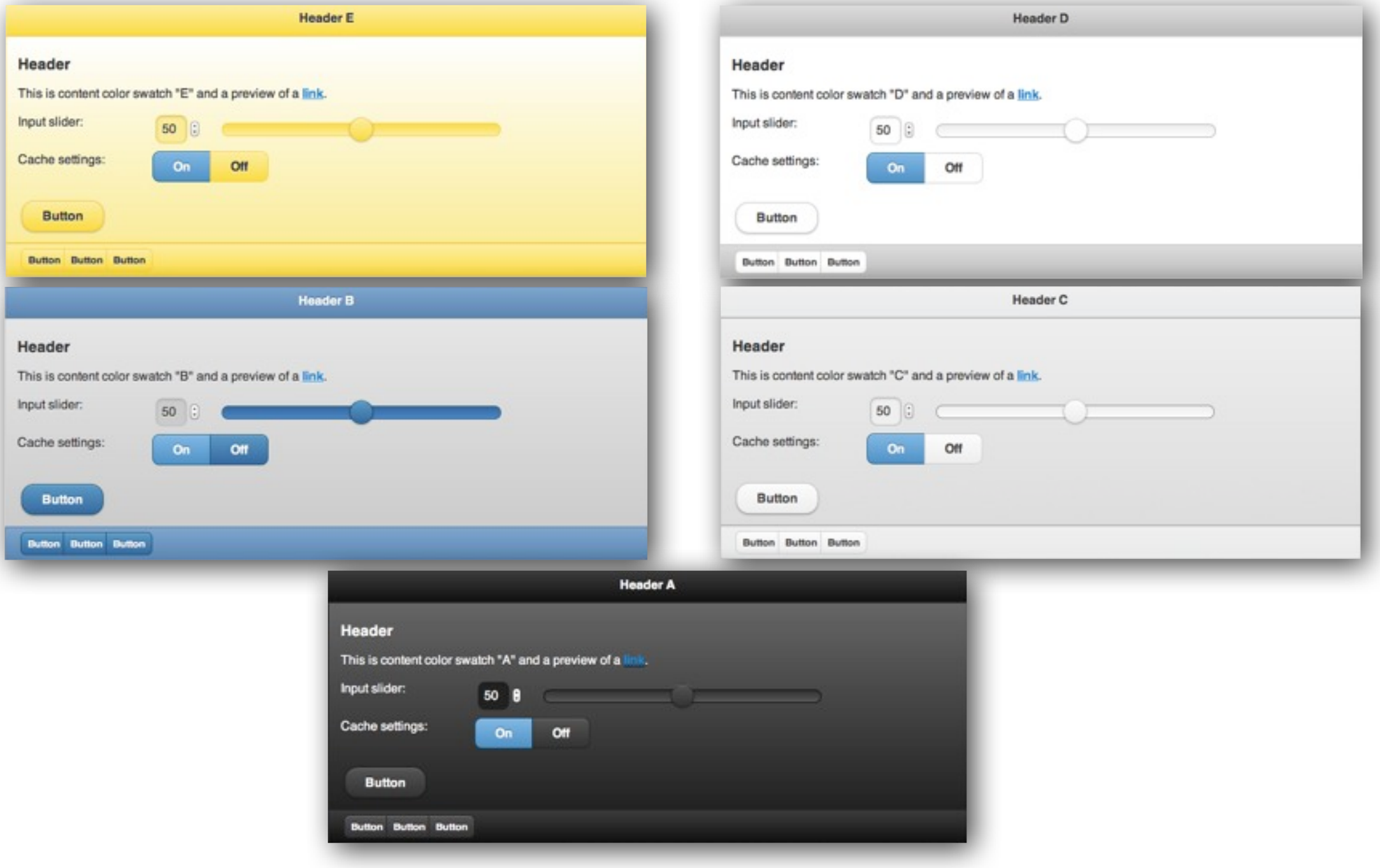

A HTML Document can consist of multiple pages. Pages are linked together via a link to #pageElementID

Pages


Home
file:///Users/markdrew/Drop
Google
Settings
Home
This is the homepage

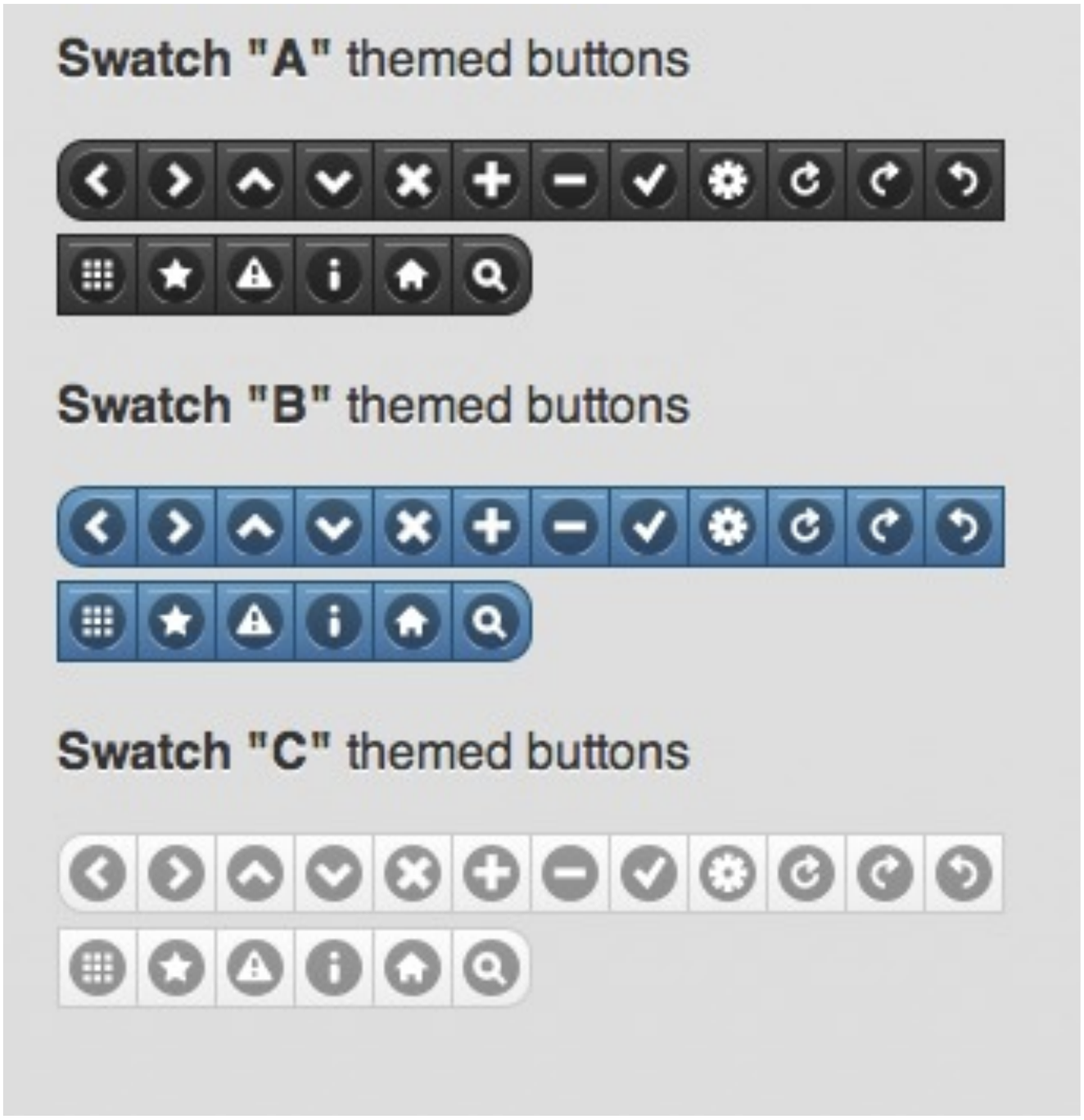

Settings
file:///Users/markdrew/Drop
Google
Back
Settings
Lorum Ipsum...

Themes



• jQuery Mobile comes with several color schemes which can be controlled using the data-theme attribute.
• You can specify a data-theme on a page, buttons, toolbar's, etc. • Try specifying data-theme=a,b,c,d,e

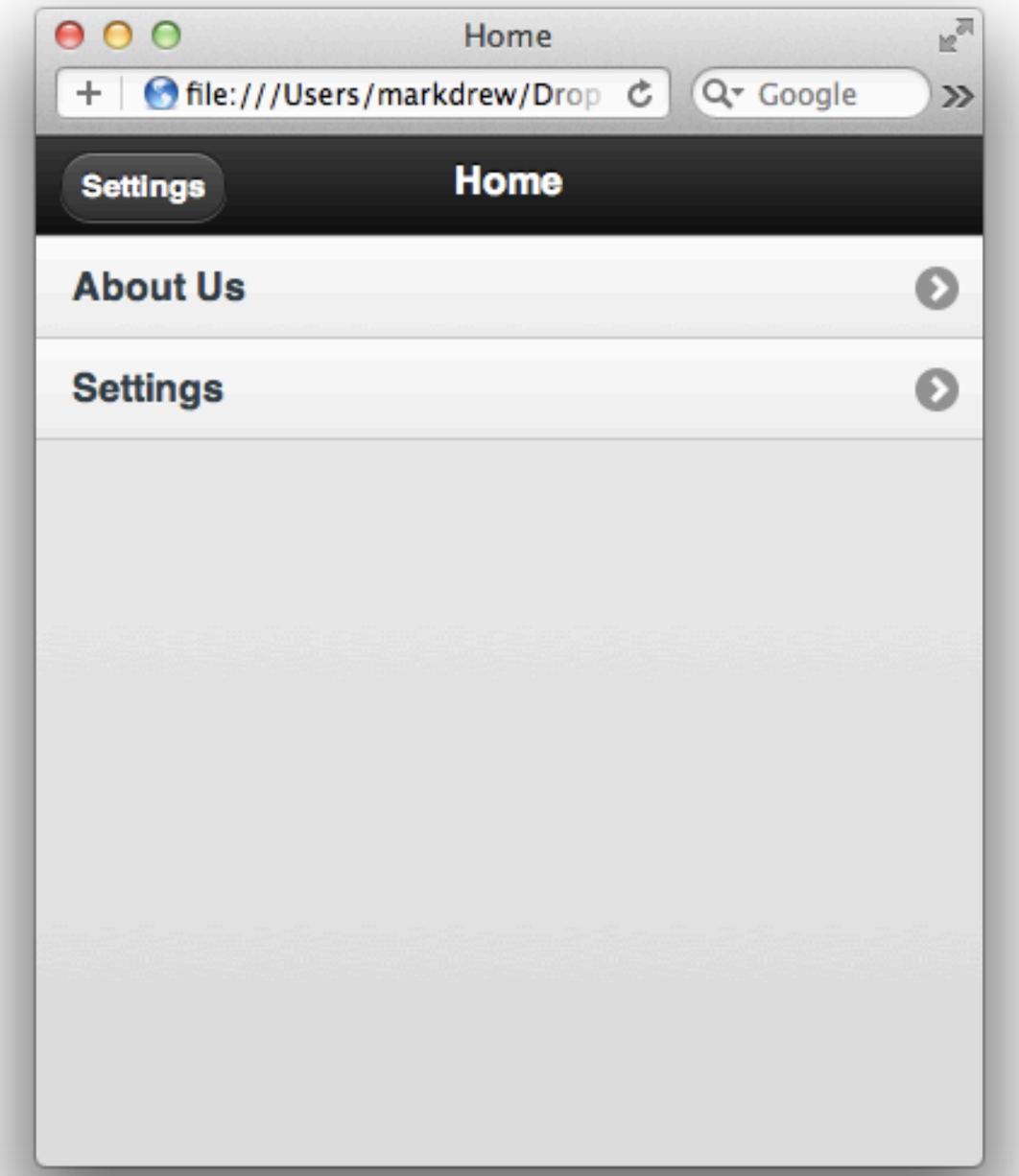
Buttons



You can create a button by adding data-role=”button” to a button tag, an a tag, or input type=submit|button|reset|image
Add an icon to the button using data-icon=”icon-name”
By default the icon goes on the left, you can put it on the right, top or bottom by specifying data-iconpos or to just use the icon use data-iconpos=”notext”
Comes with several icons

- You can use your own custom icons easily.

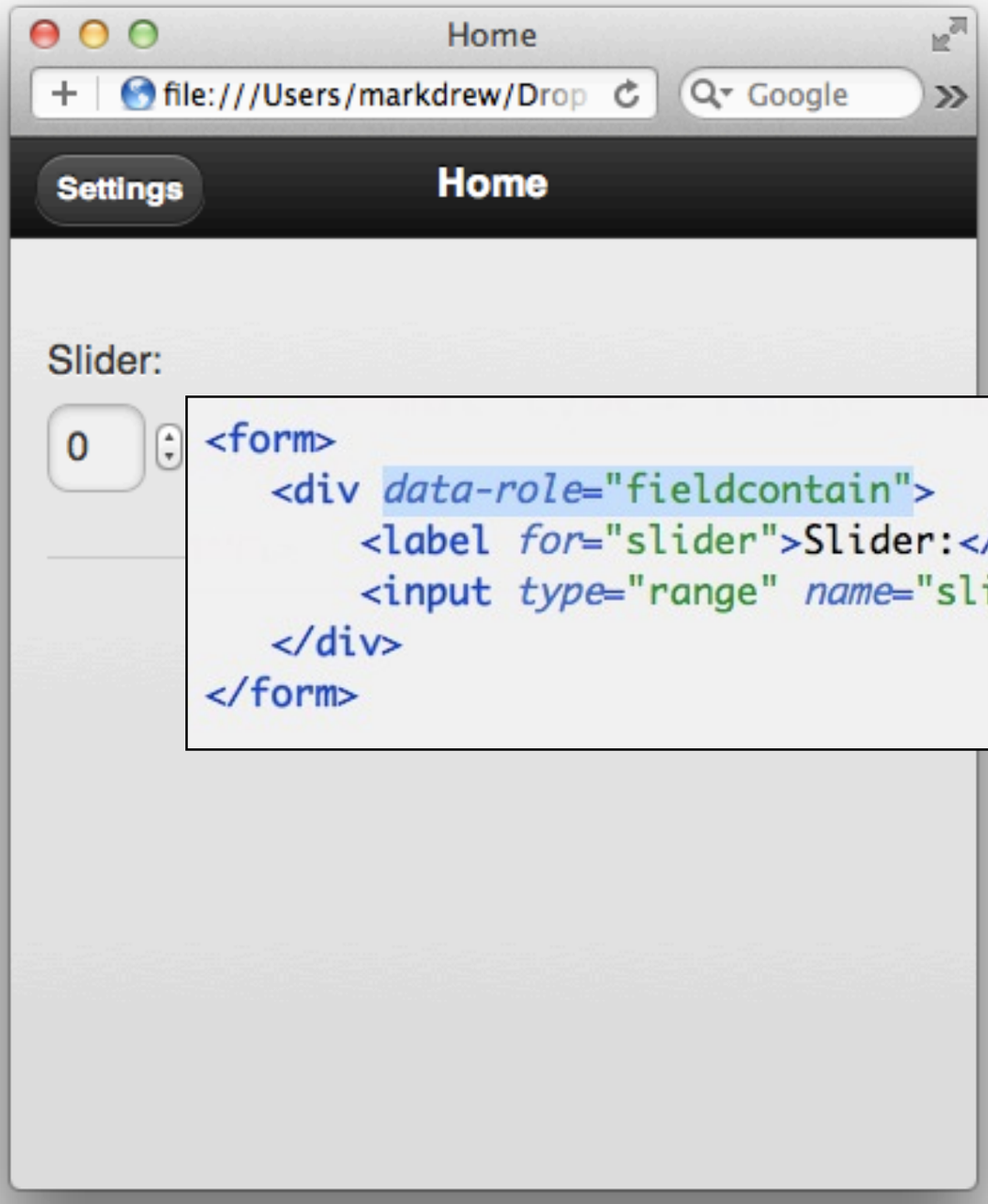
List View

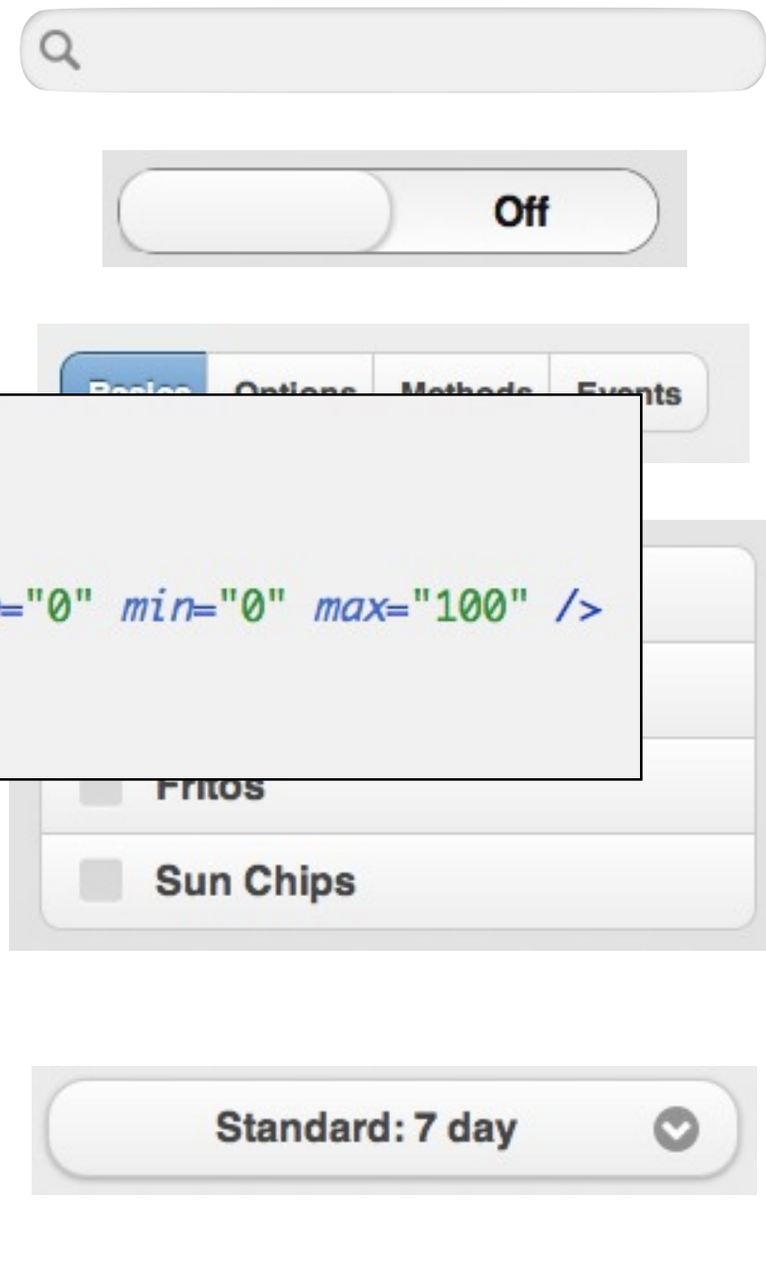



```
<ul data-role="listview" data-theme="c">
   <li><a href="#about">About Us</a></li>
   <li><a href="#settings">Settings</a></li>
</ul>
```


More Advanced List View options available
Such as inline lists, lists with images etc.
see docs.

Forms





JQuery makes mobile optimised form controls, such as Numbers Email etc.
Other Items include sliders, range dialogs
Search inputs, select, checkboxes
Form Element's should be wrapped in a div with a data- role="fieldcontain" attribute.

Demo!

JQuery Mobile
Server Side example

The bit where things go wrong!

JQuery Mobile

http://jquerymobile.com/

Better support for toolbar fixed (in IOS5 coming this Autumn!)
pushState: Now, clean URLs with Ajax-based navigation
New beforechangepage event: Simple hook for building dynamic pages with JavaScript

We've just scratched the surface of what you can do with jQuery Mobile.

- Checkout: http://jquerymobile.com/

Agenda

PhoneGap

Back to our agenda
Let's take a quick look at PhoneGap

PhoneGap

A Set of templates for building native iOS, Android, Blackberry, Symbian, and WebOS using HTML, CSS, and JavaScript

A Set of templates for building native iOS, Android, Blackberry, Symbian, and WebOS Applications using HTML, CSS, and JavaScript.
Mainly a set of plugins to the respective SDK, such as XCode

Phonegap.js

http://docs.phonegap.com

- phonegap.js contains a device neutral javascript API for accessing native device API's such as:
- Camera
- Accelerometer
- GPS
- Compass
- Address Book / Contacts
- Media (Audio / Video)
- Events and notifications
- And More see docs.phonegap.com for a full reference.

Platforms

	iOS iPhone / iPhone 3G	iOS iPhone 3GS and newer	Android	OS 4.6-4.7	OS 5.x	OS 6.0+	WebOS	Symbian	Bada
ACCELEROMETER	✓	✓	✓	✗	✓	✓	✓	✓	✓
CAMERA	✓	✓	✓	✗	✓	✓	✓	✓	✓
COMPASS	✗	✓	✓	✗	✗	✗	✗	✗	✓
CONTACTS	✓	✓	✓	✗	✓	✓	✗	✓	✓
FILE	✓	✓	✓	✗	✓	✓	✗	✗	✗
GEOLOCATION	✓	✓	✓	✓	✓	✓	✓	✓	✓
MEDIA	✓	✓	✓	✗	✗	✗	✗	✗	✗
NETWORK	✓	✓	✓	✓	✓	✓	✓	✓	✓
NOTIFICATION (ALERT)	✓	✓	✓	✓	✓	✓	✓	✓	✓
NOTIFICATION (SOUND)	✓	✓	✓	✓	✓	✓	✓	✓	✓
NOTIFICATION (VIBRATION)	✓	✓	✓	✓	✓	✓	✓	✓	✓
STORAGE	✓	✓	✓	✗	⚠	✓	✓	✓	✗

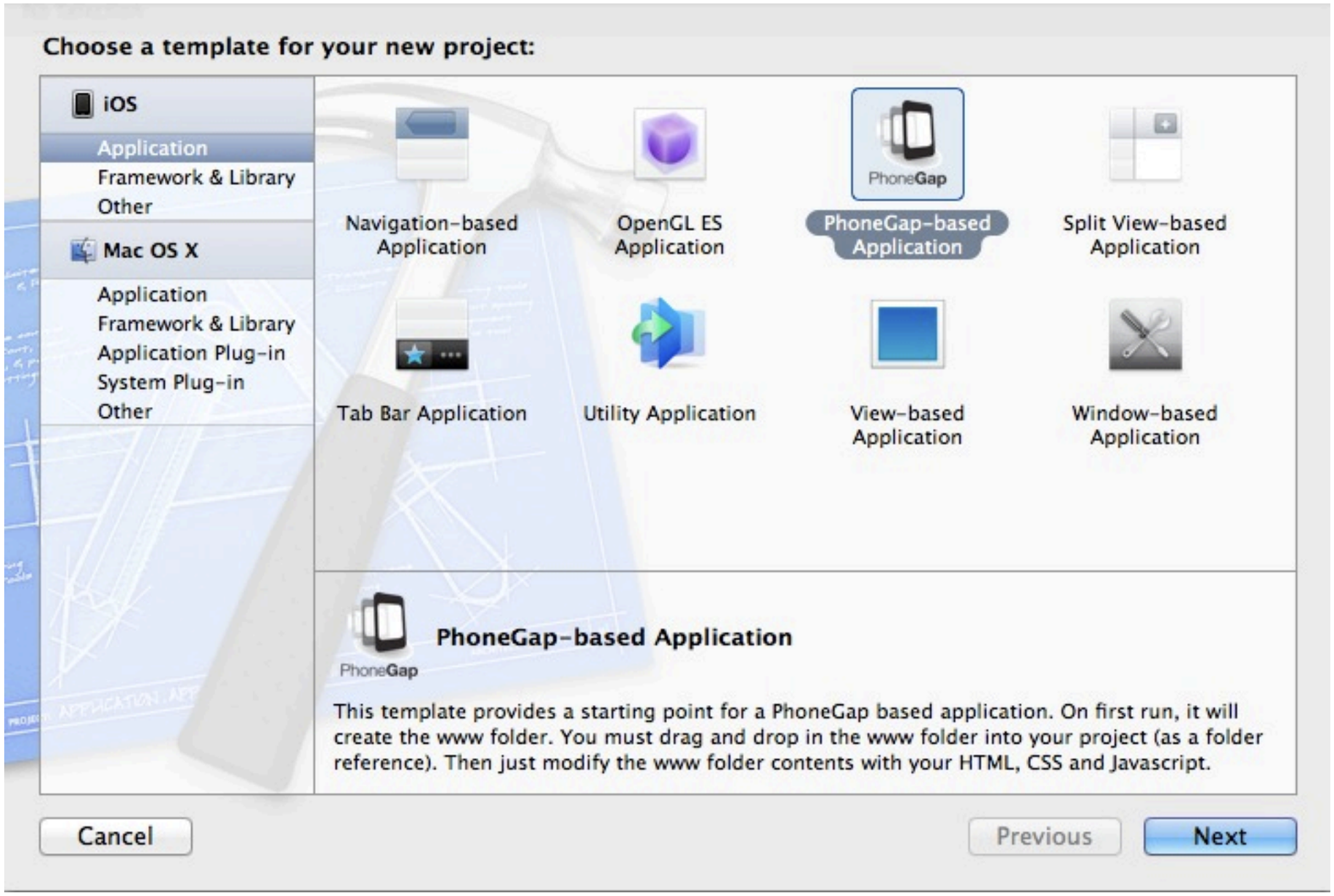
iOS
Android
Blackberry
HP WebOS
Symbian
Bada

Creating an iOS App

- Buy XCode on the Apple App Store
- Download PhoneGap (from http://phonegap.com)
- Run the /iOS/PhoneGap-1.0.0.dmg image
- Run the PhoneGap-1.0.0.pkg file
- Launch Xcode, create a new project, and select the PhoneGap Template
- Click Build & Run to launch the iOS Simulator.

Although there is an extra step... you need to add the www folder.

Creating an iOS App



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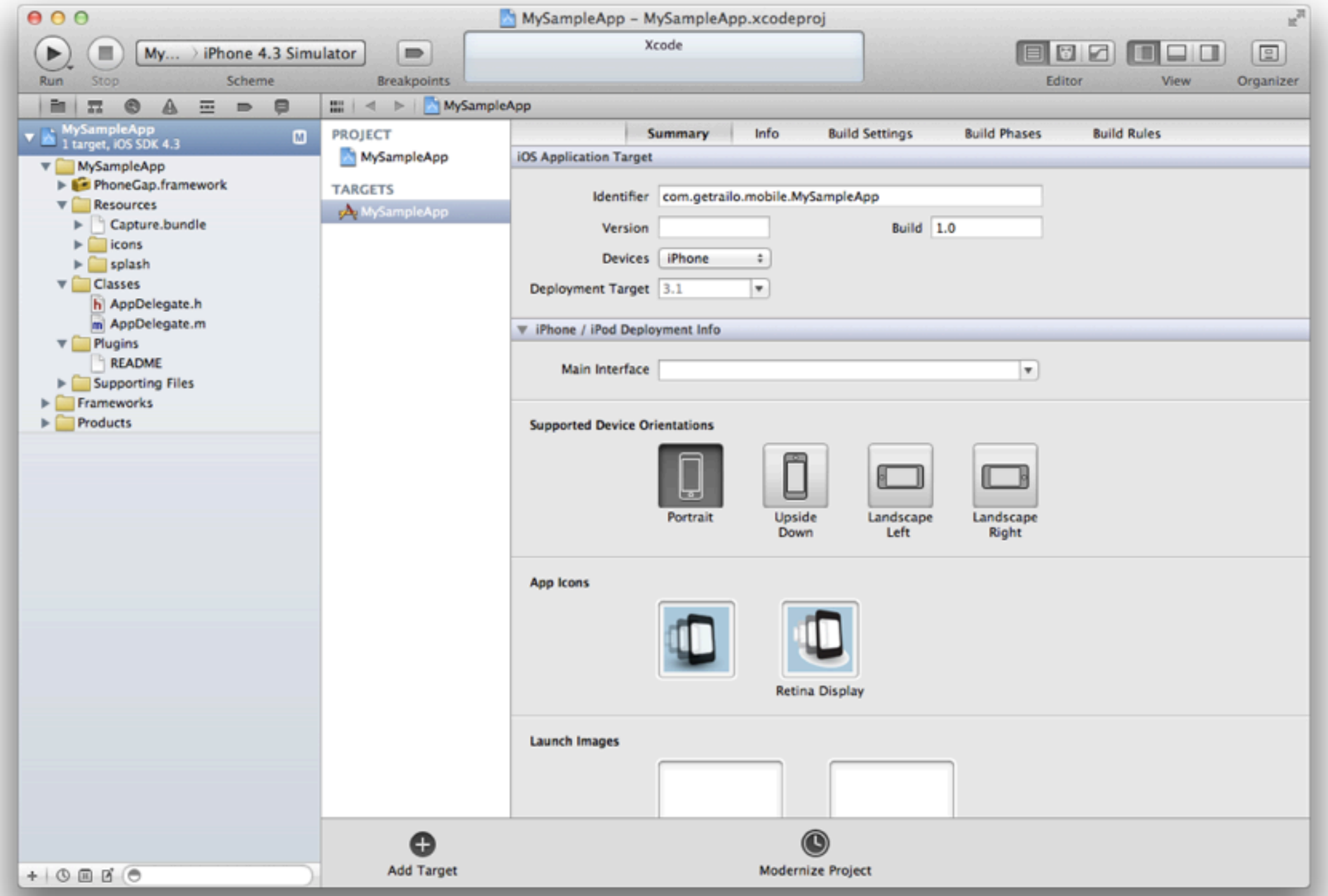

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Creating an iOS App

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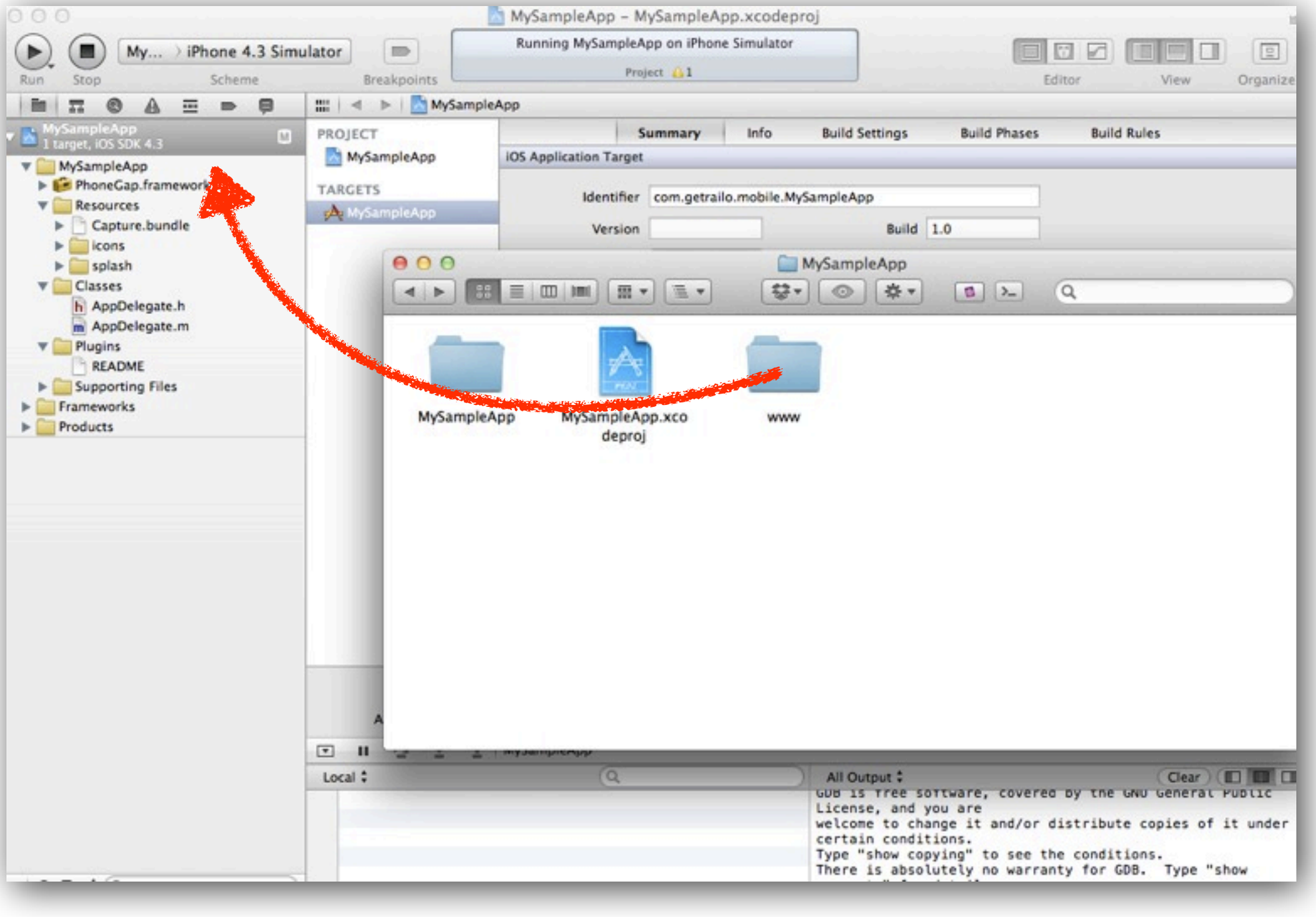
You need to move the www file onto the project

Creating an iOS App



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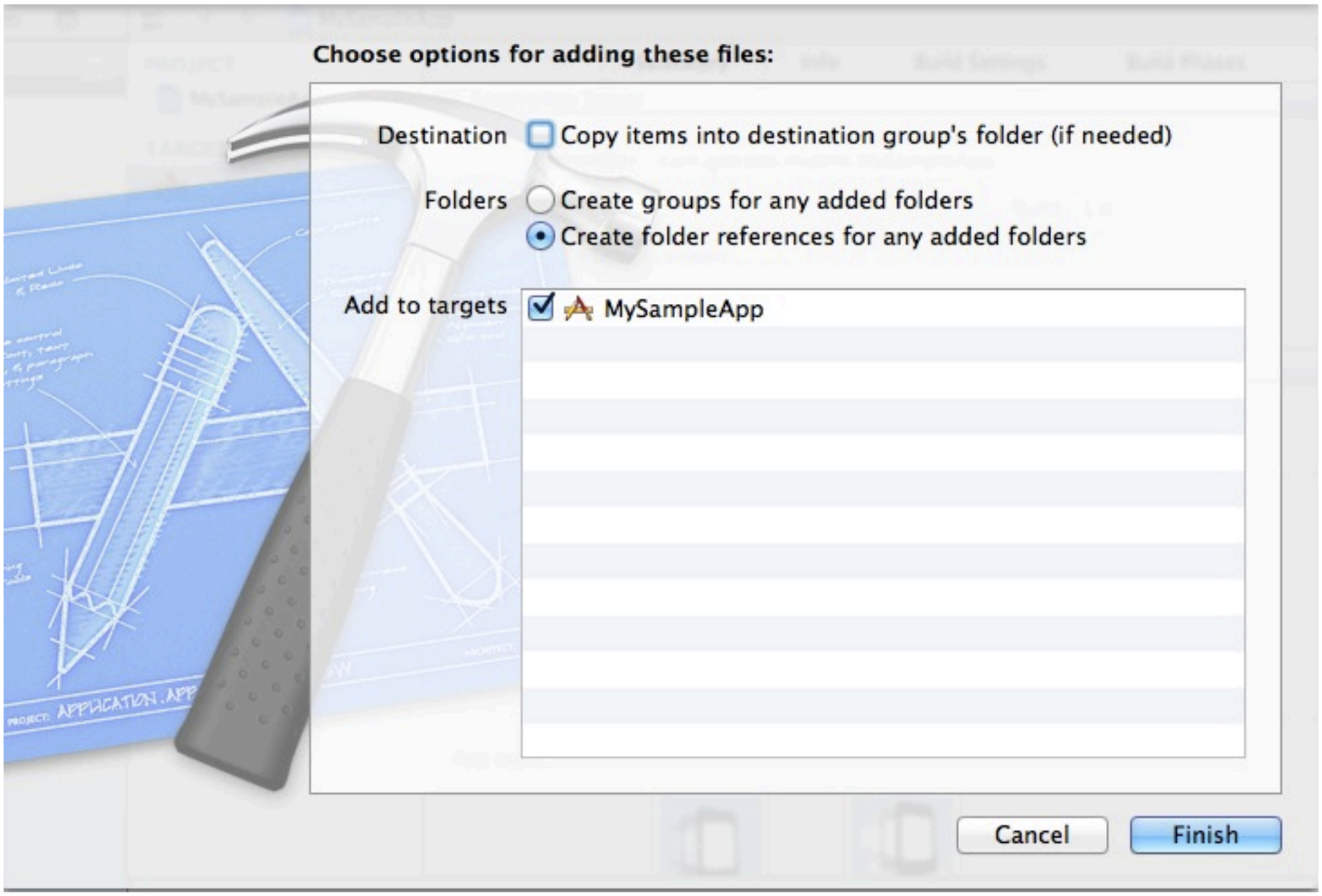

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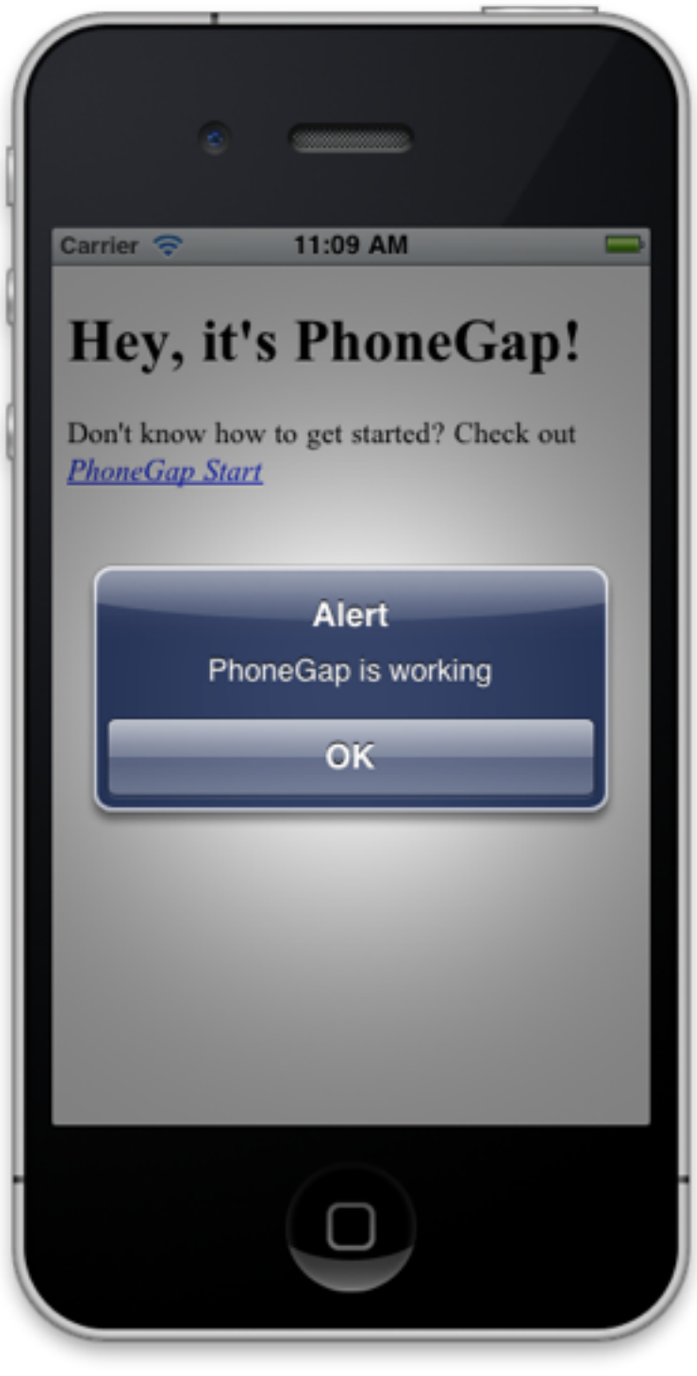

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And NOW it works!

Demo!

PhoneGap
Client Side Application

https://github.com/cybersonic/jquerymobile_phonegap_demo

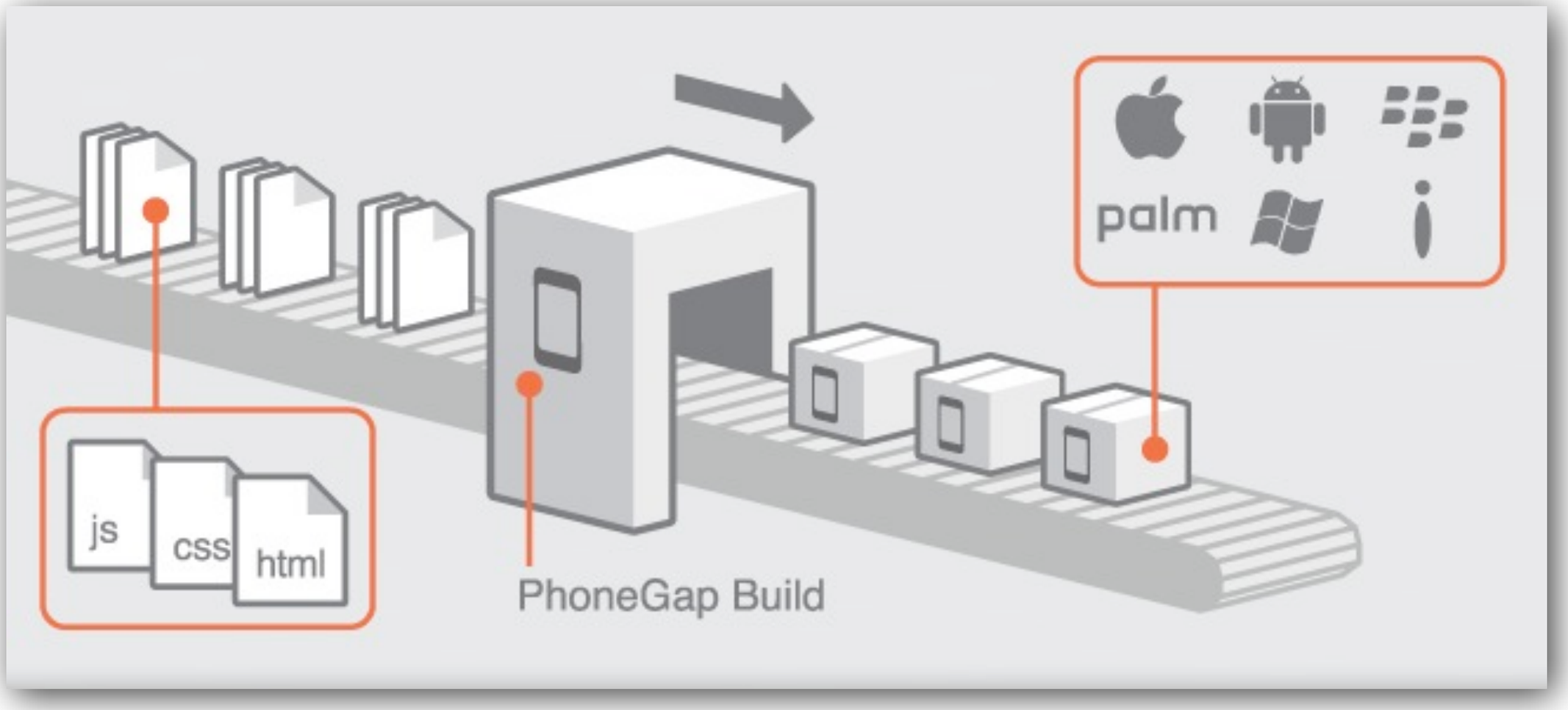
The bit where things go wrong!
Code available on github

Watch Out!

- You need to add external sites to a “White List”

Added this at the last minute when a demo wasn’t working

PhoneGap Build



SUPPORTED

iOS palm symbian OS

COMING SOON

MeeGo bada

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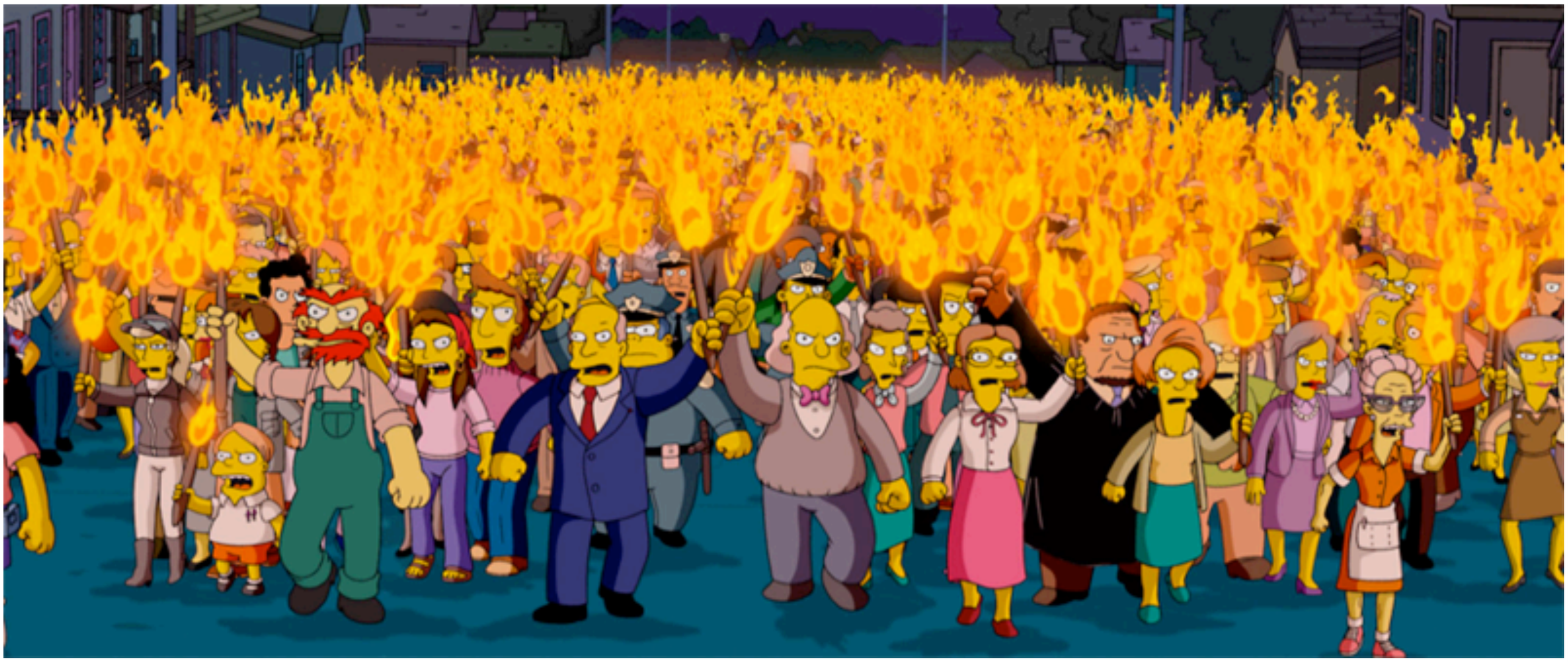

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