

jQuery and the Missing Mobile Link



Mark Drew
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London AJAX UG 2011

Hi!



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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

Model Glue and ColdBox (MVC) Contributor

ColdBox Contributor

Agenda



PhoneGap



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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.



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Touch Optimised?

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



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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.

Optimised Form Controls

(No the mouse isn't touching himself!!)

Mobile OS Support



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Mobile OS Support

Platform	Version	Native	Opera Mobile		Opera Mini		Fennec		Ozone	Netfront	Phonegap
			8.5	8.65	9.5	10.0	4.0	5.0	1.0	1.1	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

Railo But I don't know JQuery!



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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!



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- 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

Railo But what about the code?



A screenshot of a Mac OS X text editor window titled "simple.html". The code in the editor is as follows:

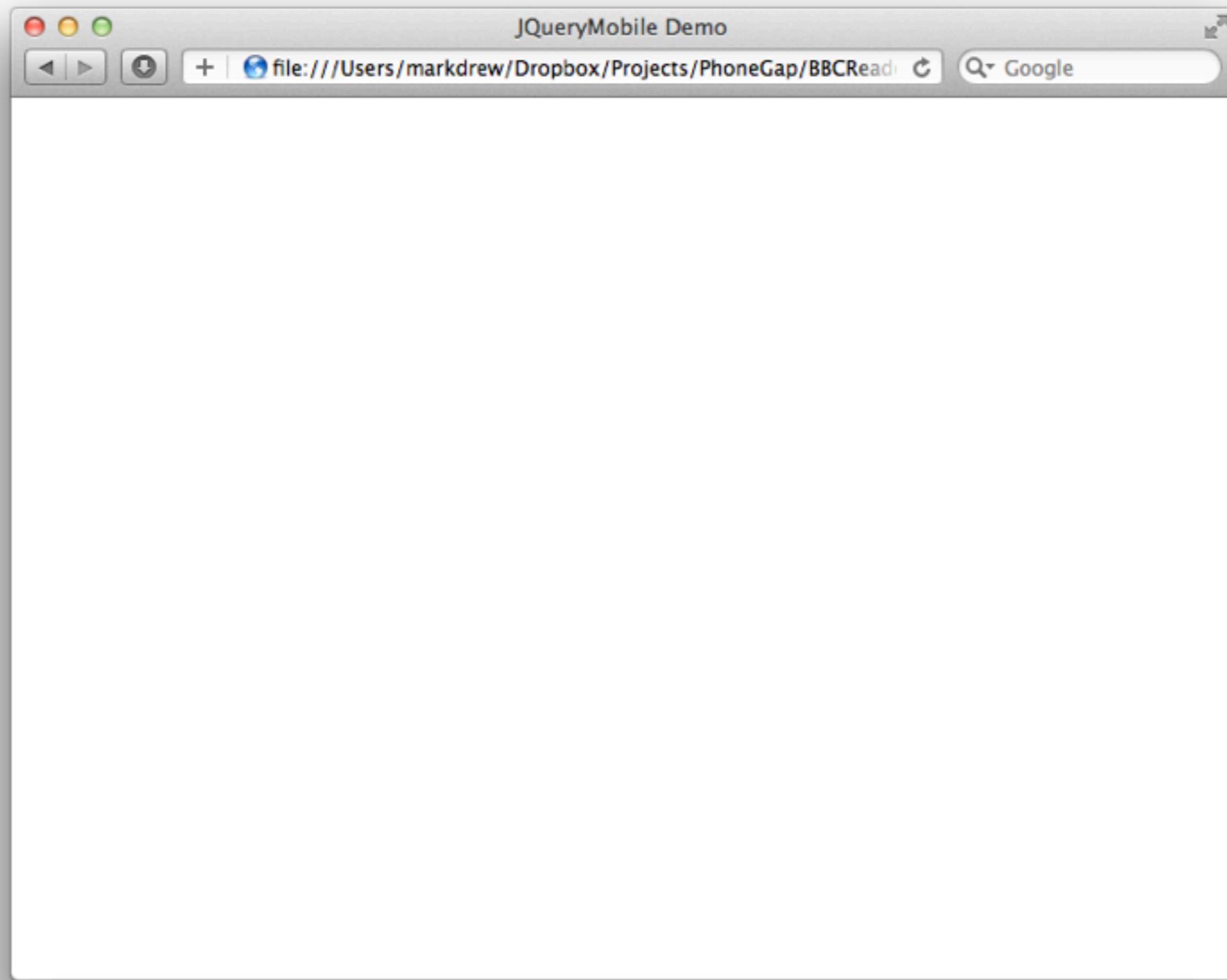
```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JQueryMobile Demo</title>
5   <script type="text/javascript" src="jquery-1.6.2.min.js"></script>
6   <script type="text/javascript" src="jquery.mobile-1.0a4.1.min.js"></script>
7   <link rel="stylesheet" href="jquery.mobile-1.0a4.1.min.css" />
8 </head>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

The editor interface shows line numbers 1 through 11 on the left, and status bars at the bottom indicating "Line: 4 Column: 37" and "HTML".

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- 1) HTML5 Doctype
- 2) jQuery Core JS
- 3) jQuery Mobile JS
- 2) jQuery Mobile CSS

Railo But what about the code?



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Data-Role?

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



```
1 <div id="category_1"></div>
2
3 <div data-id="category_1"></div>
```

Line: 3 Column: 33 HTML Tab Size: 4 ID: category_1

HTML



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

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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 `<div id="cat#cat.id#"></div>` you can do `<div data-id="#cat.id#">...</div>` 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"`



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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"`

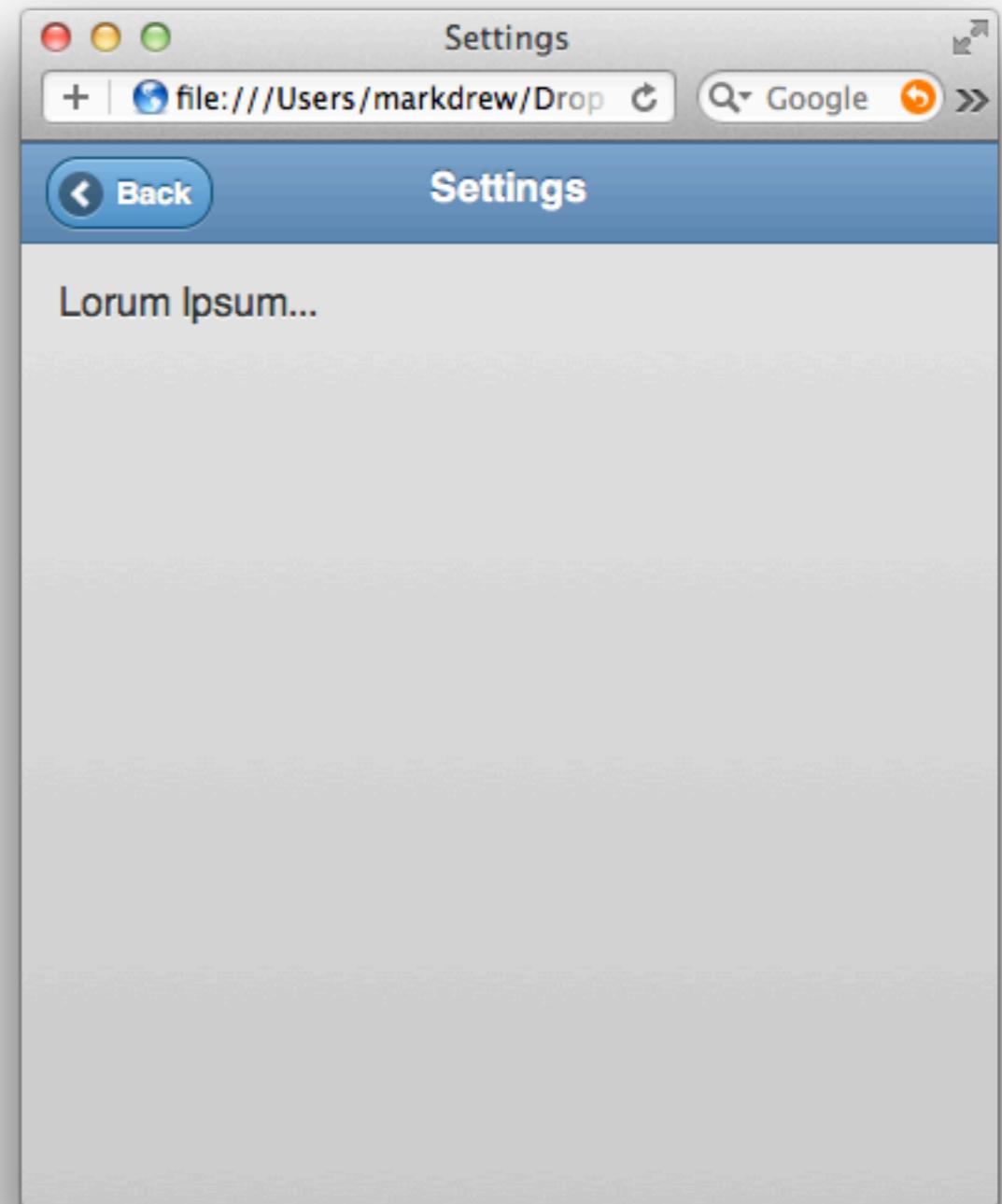
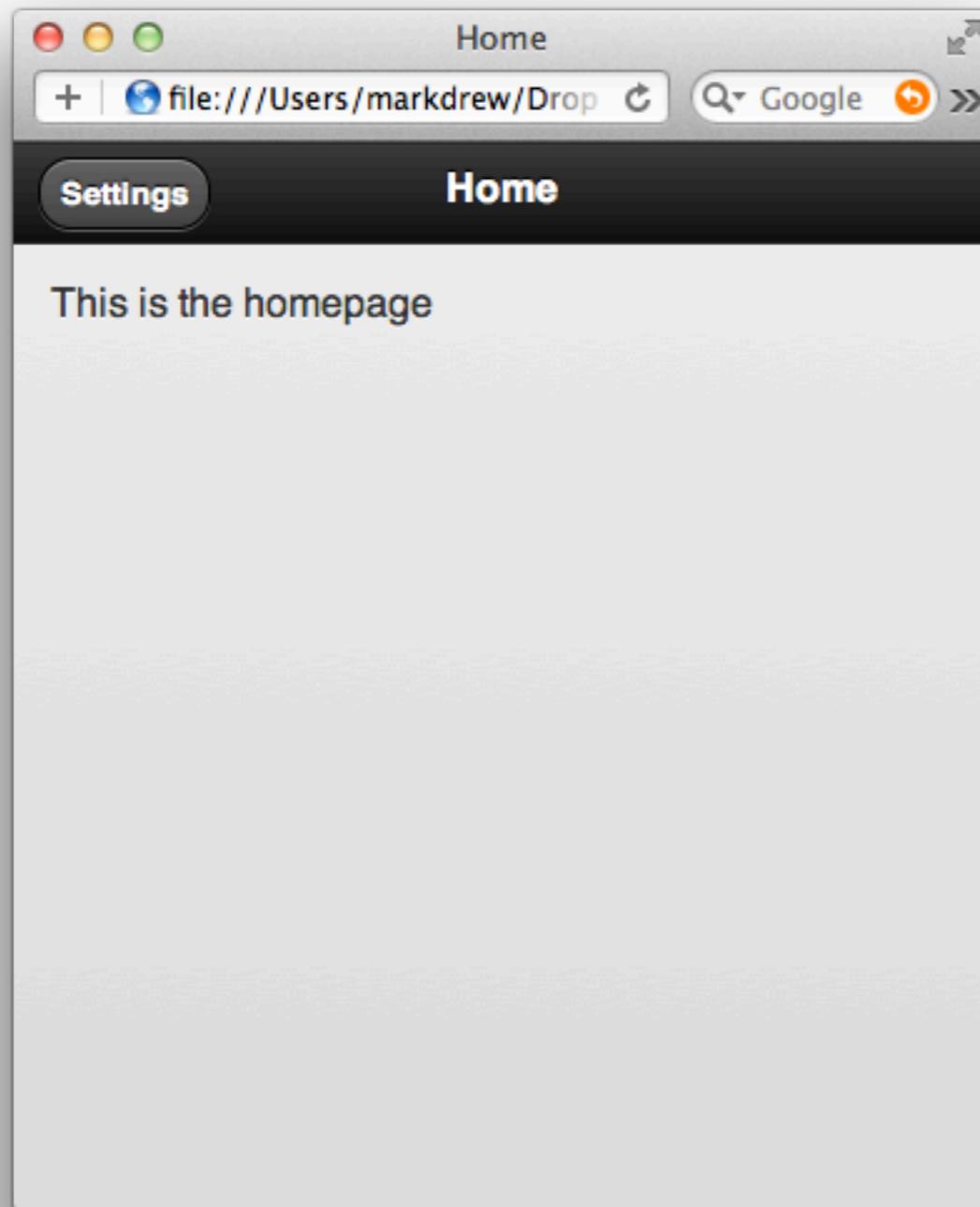
Pages

```
<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>
```

```
<\p>
<\p>
  Lorum Ipsum...
<div data-role="content">
```

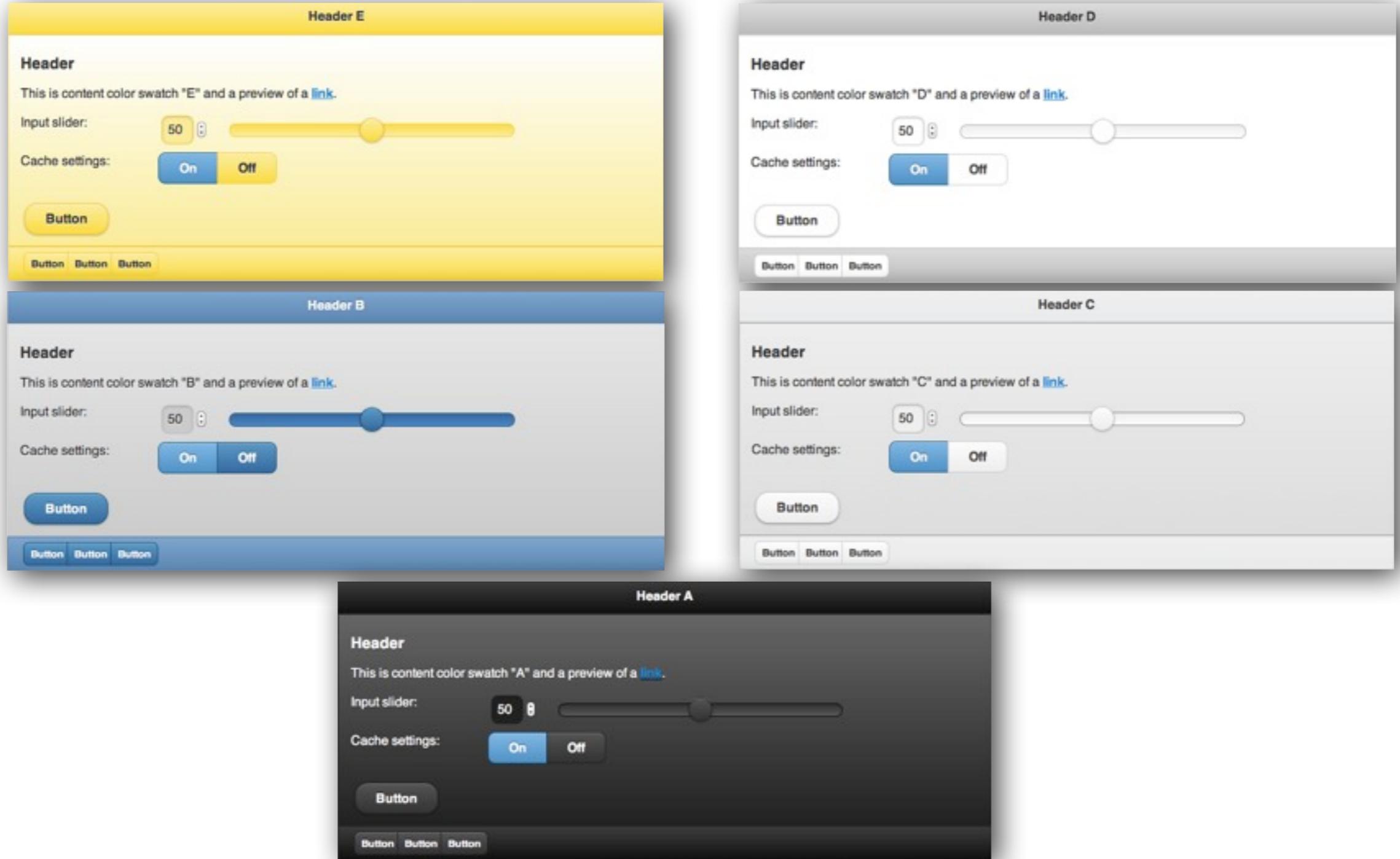
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Pages



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Themes



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- 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

Left arrow - data-icon="arrow-l"

 My button

Right arrow - data-icon="arrow-r"

 My button

Up arrow - data-icon="arrow-u"

 My button

Down arrow - data-icon="arrow-d"

 My button

Delete - data-icon="delete"

 My button

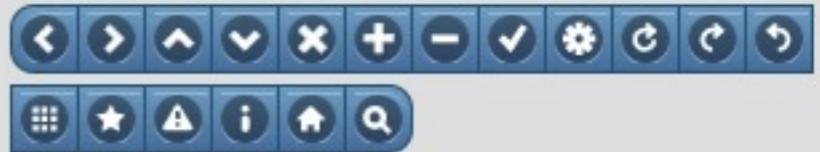
Plus - data-icon="plus"

 My button

Swatch "A" themed buttons



Swatch "B" themed buttons



Swatch "C" themed buttons



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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"`

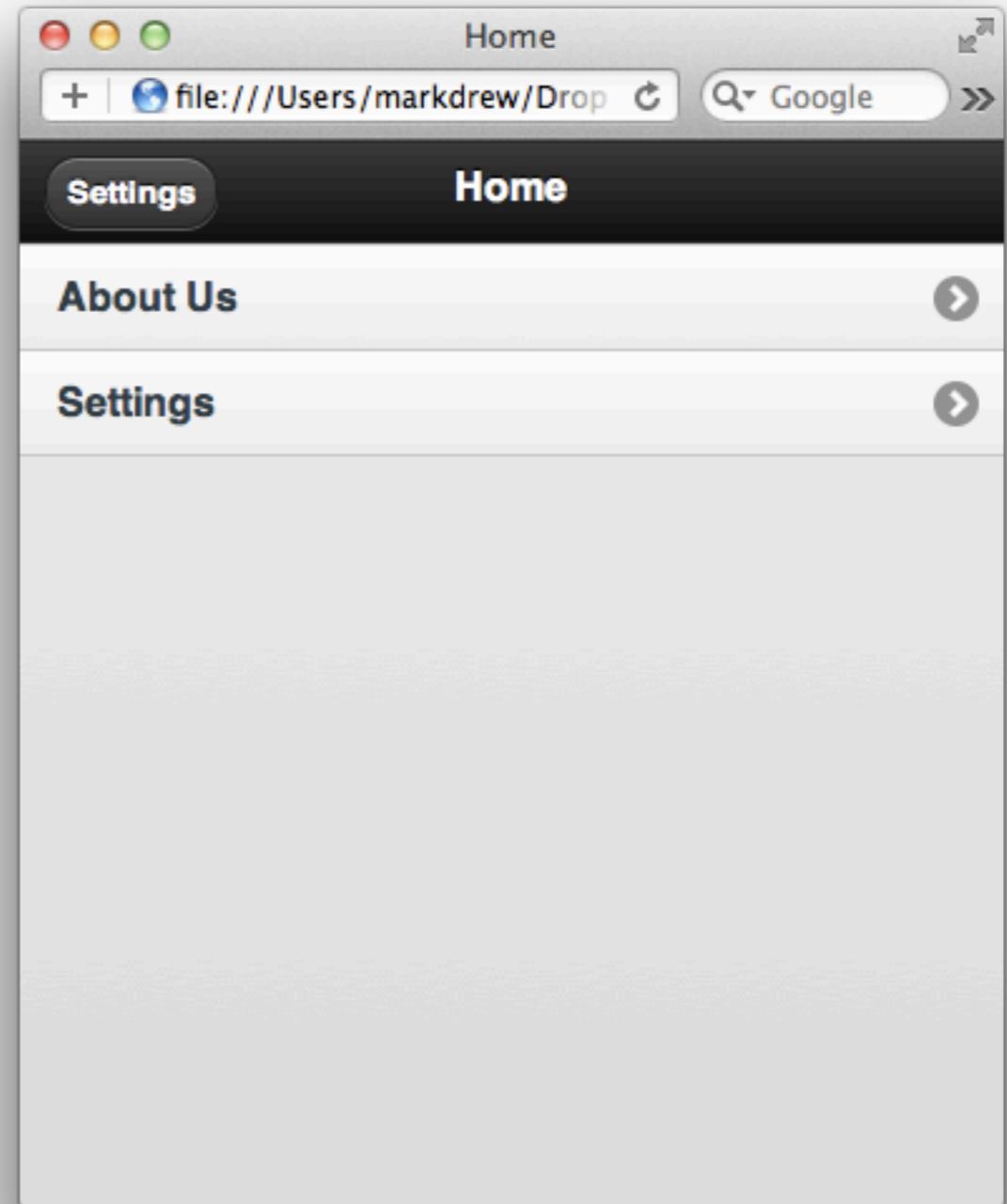
By default the icon goes on the left, you can put it on the right, top or bottom by specifying `data-iconpos` or to just use the icon use `data-iconpos="notext"`

Comes with several icons

- You can use your own custom icons easily.

List View

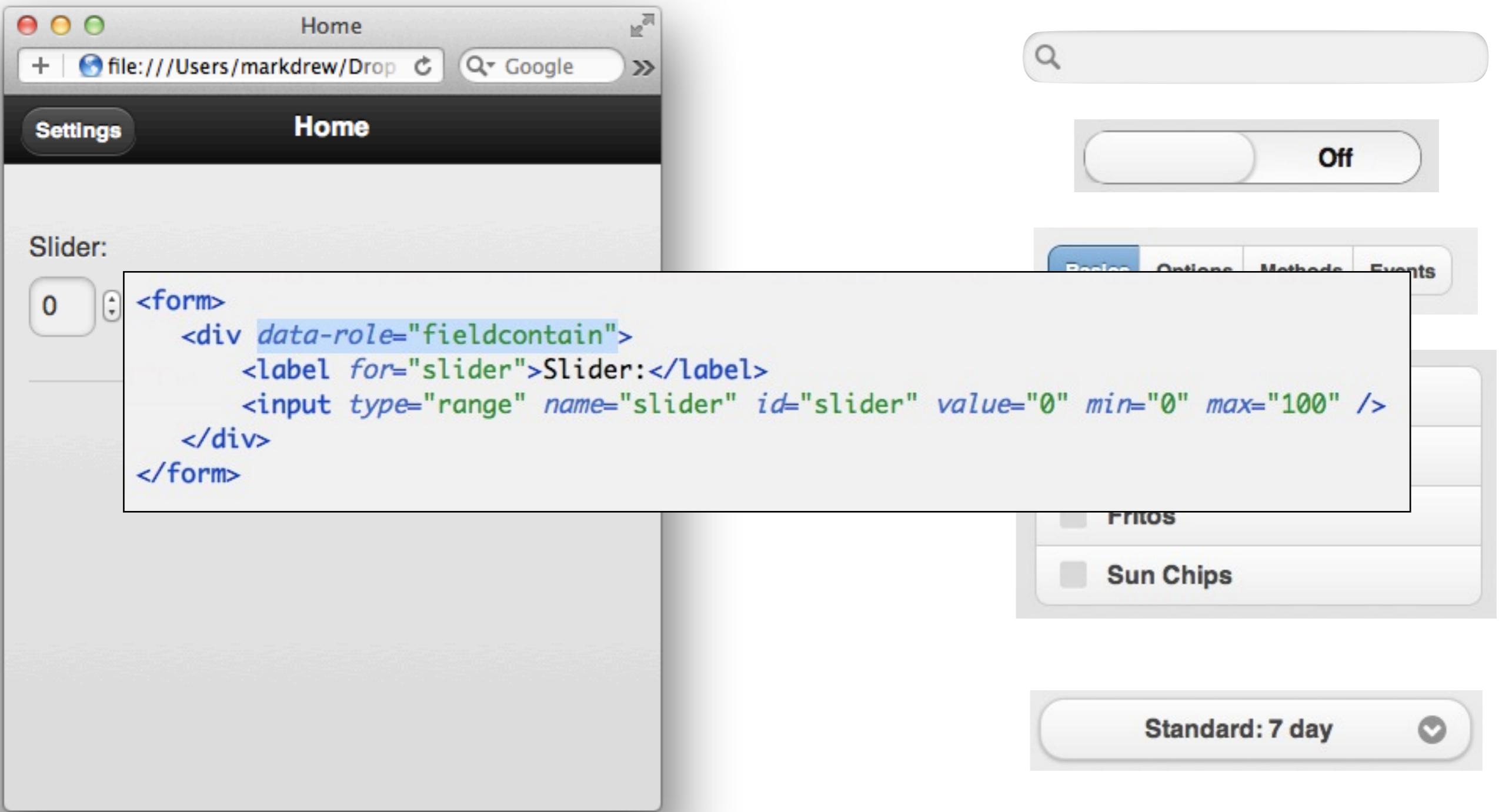
```
<ul data-role="listview" data-theme="c">
  <li><a href="#about">About Us</a></li>
  <li><a href="#settings">Settings</a></li>
</ul>
```



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

Forms



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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



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JQuery Mobile



<http://jquerymobile.com/>

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Better support for toolbar fixed (in IOS5 coming this Autumn!)

pushState: Now, clean URLs with Ajax-based navigation

New beforechangeevent: 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



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PhoneGap

PhoneGap



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

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Phonegap.js



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- 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

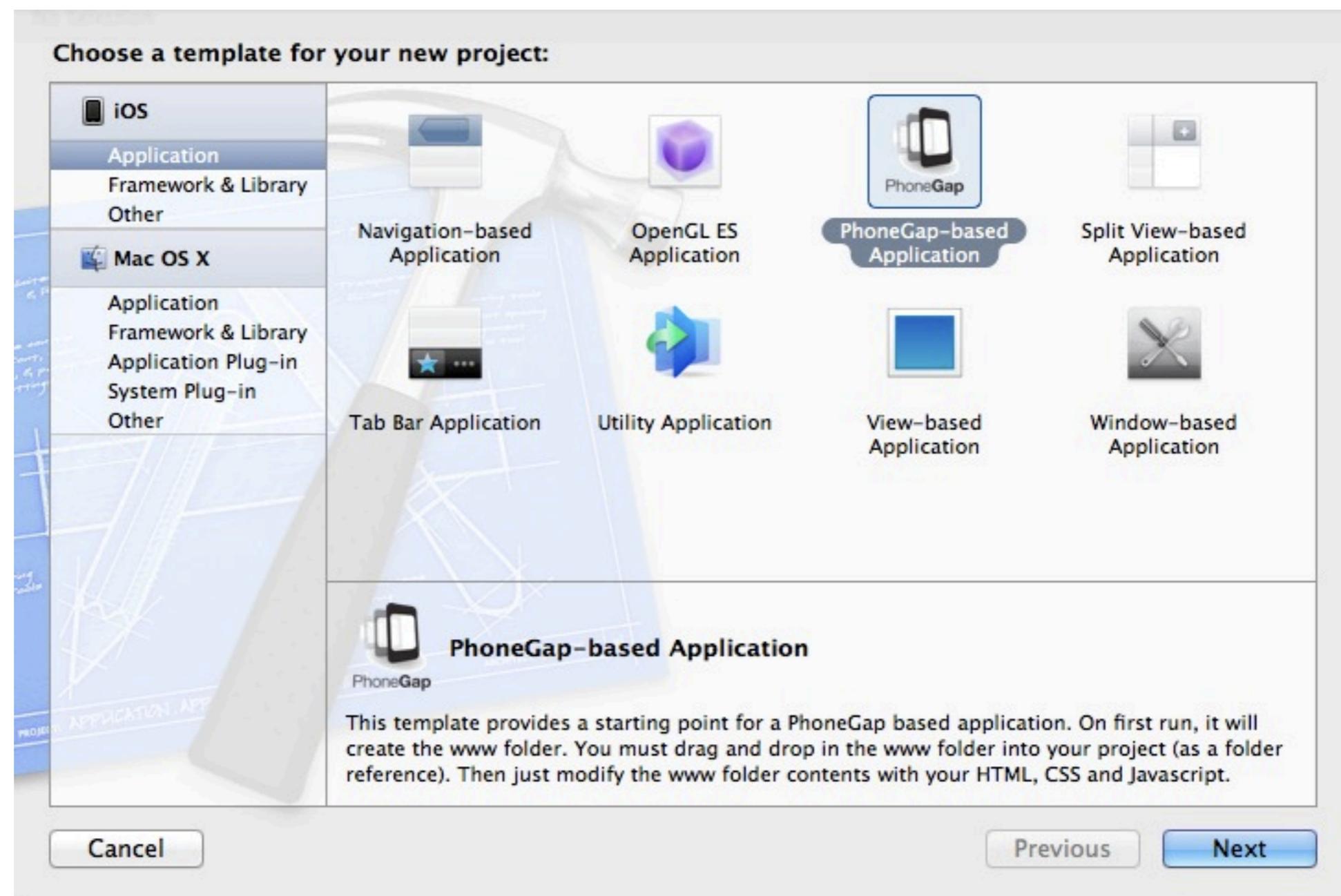
	iOS iPhone / iPhone 3G	iOS iPhone 3GS and newer	Android	OS 4.6-4.7	OS 5x	OS 6.0+	hp WebOS	Symbian	Bada
ACCELEROMETER	✓	✓	✓	✗	✓	✓	✓	✓	✓
CAMERA	✓	✓	✓	✗	✓	✓	✓	✓	✓
COMPASS	✗	✓	✓	✗	✗	✗	✗	✗	✓
CONTACTS	✓	✓	✓	✗	✓	✓	✗	✓	✓
FILE	✓	✓	✓	✗	✓	✓	✗	✗	✗
GEOLOCATION	✓	✓	✓	✓	✓	✓	✓	✓	✓
MEDIA	✓	✓	✓	✗	✗	✗	✗	✗	✗
NETWORK	✓	✓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

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- Buy XCode on the Apple App Store
- Download PhoneGap (from <http://phonegap.com>)
- Run the /iOS/PhoneGap-10.0.0.dmg image
- Run the PhoneGap-10.0.0.pkg file
- Launch Xcode, create a new project, and select the PhoneGap Template
- Click Build & Run to launch the iOS Simulator.

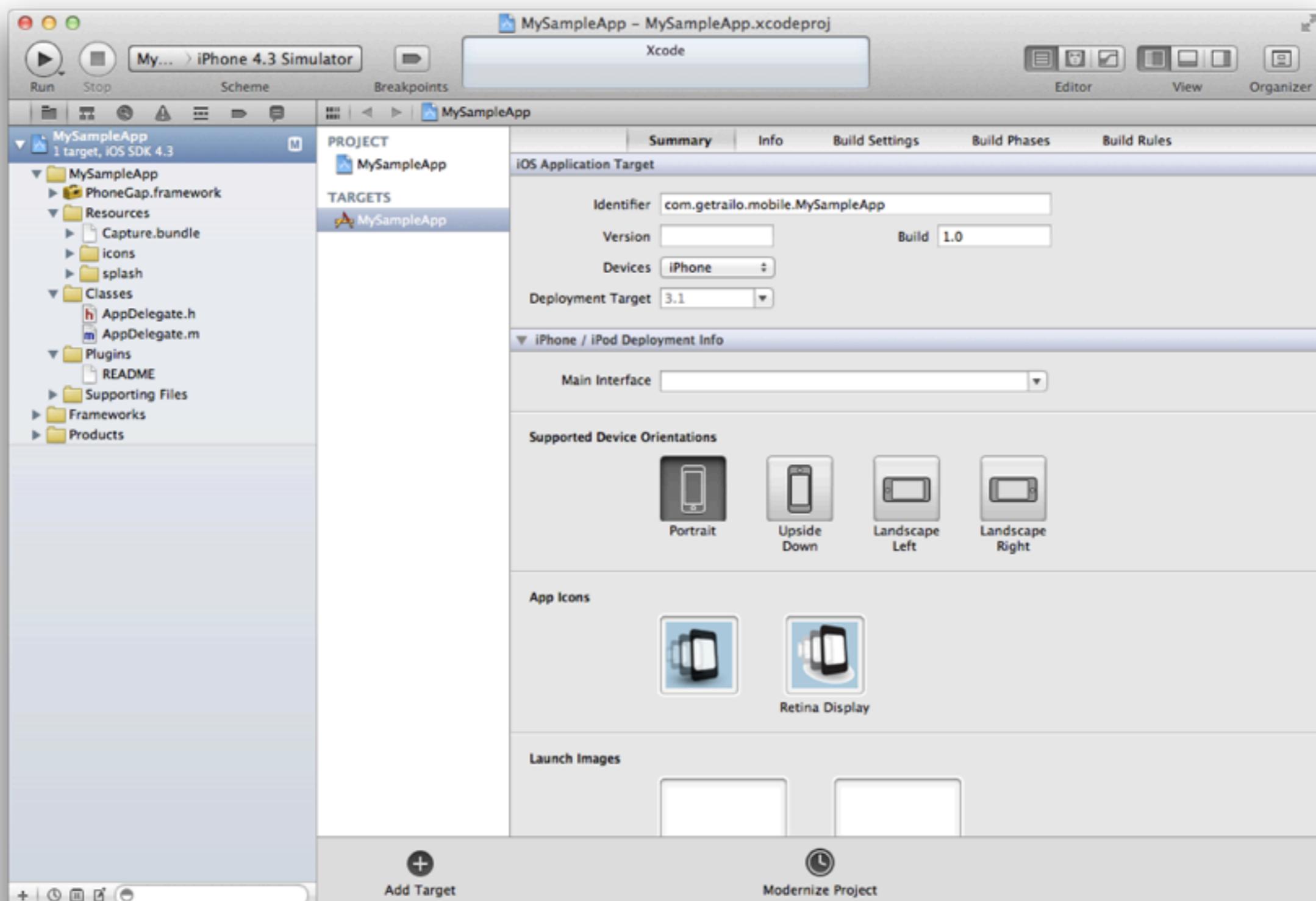
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Creating an iOS App



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Creating an iOS App



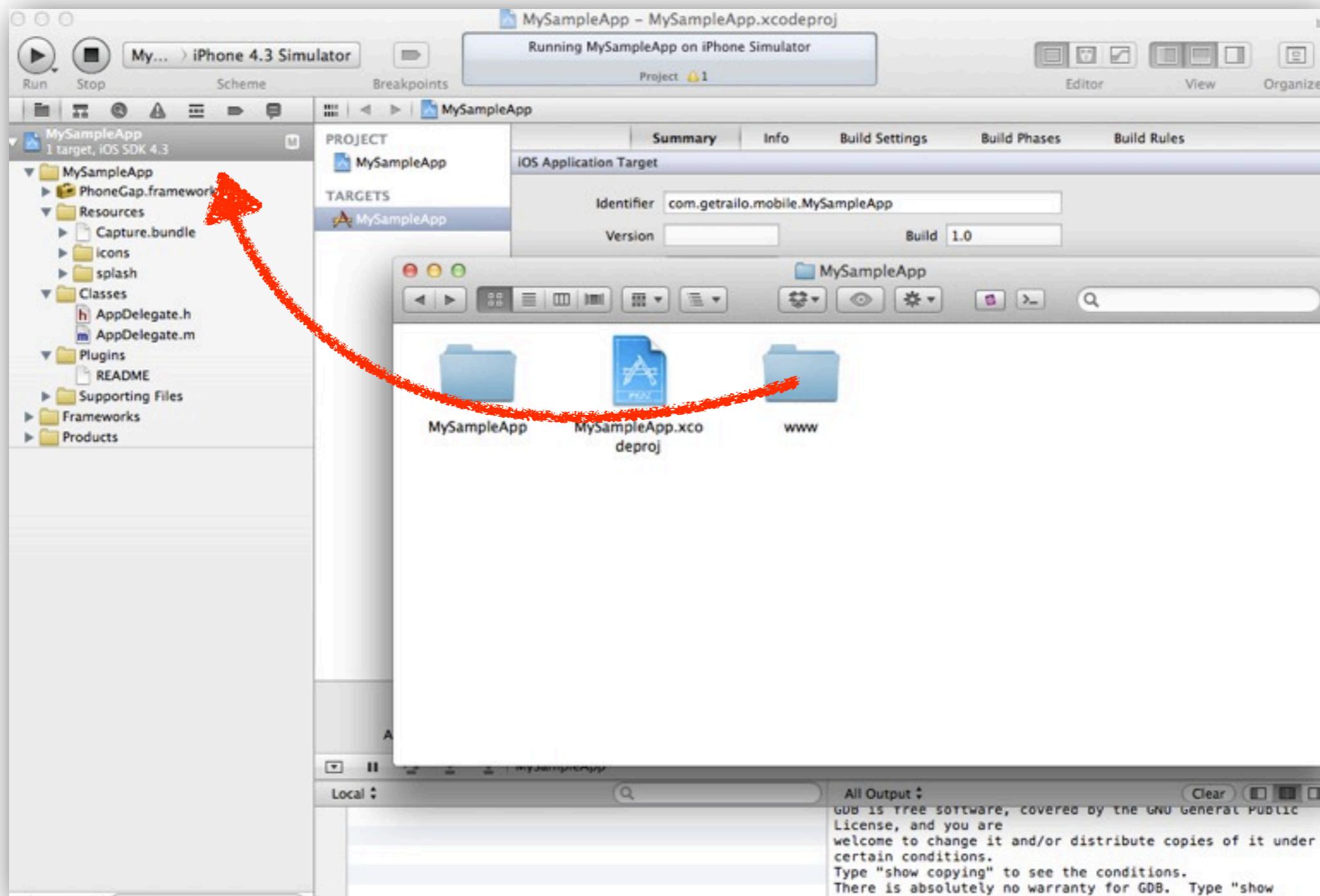
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Creating an iOS App



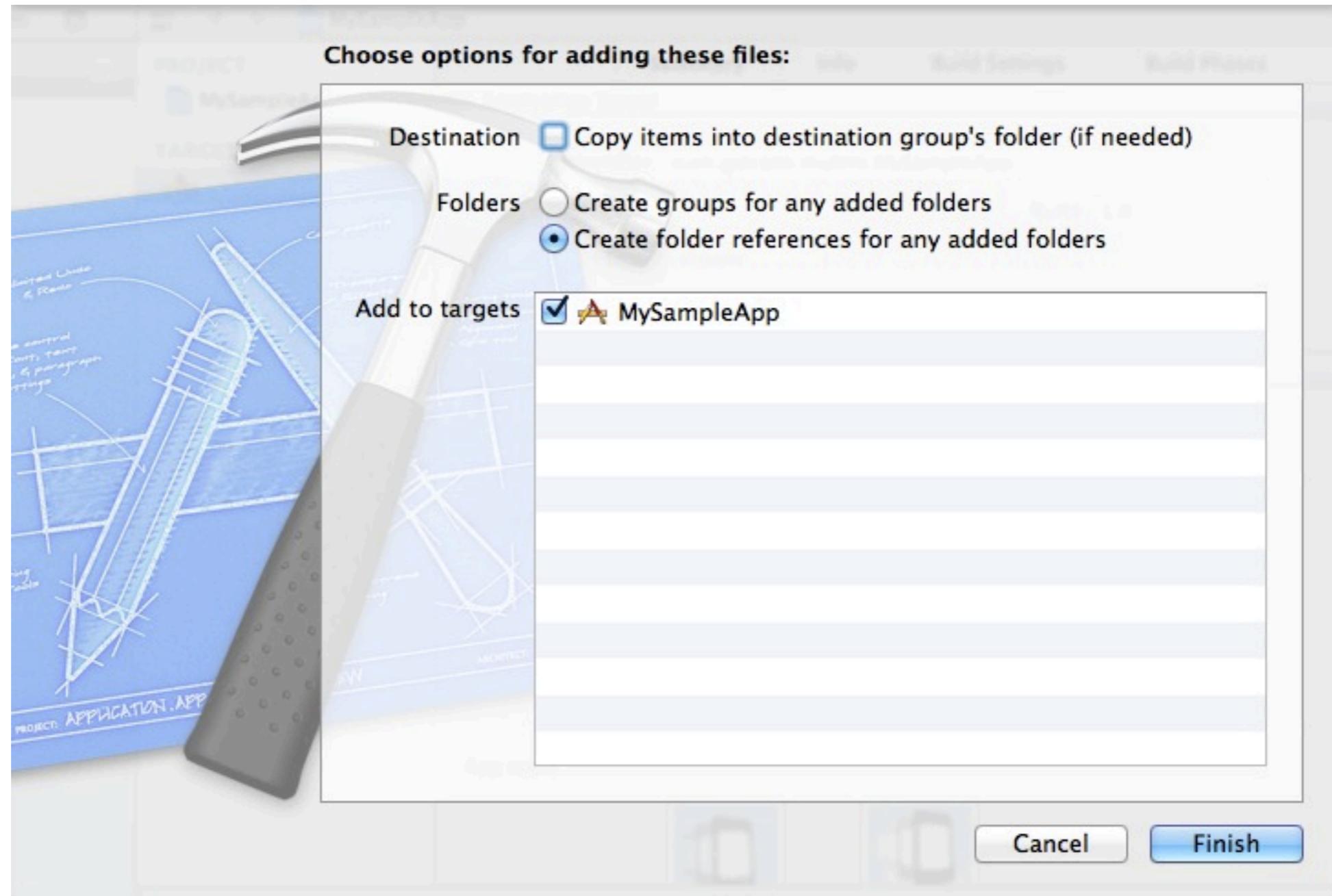
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Creating an iOS App



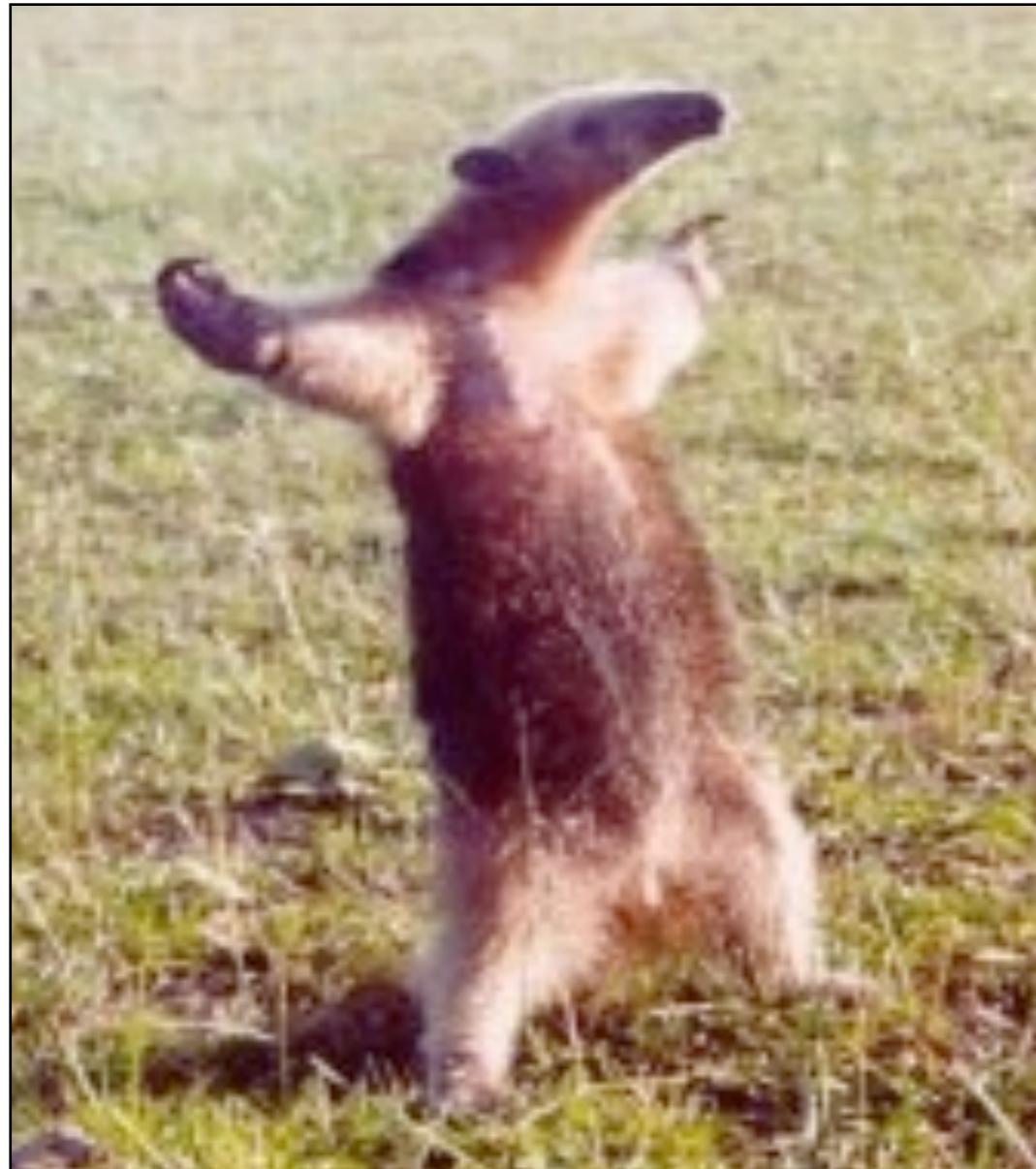
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Creating an iOS App



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Creating an iOS App



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Demo!

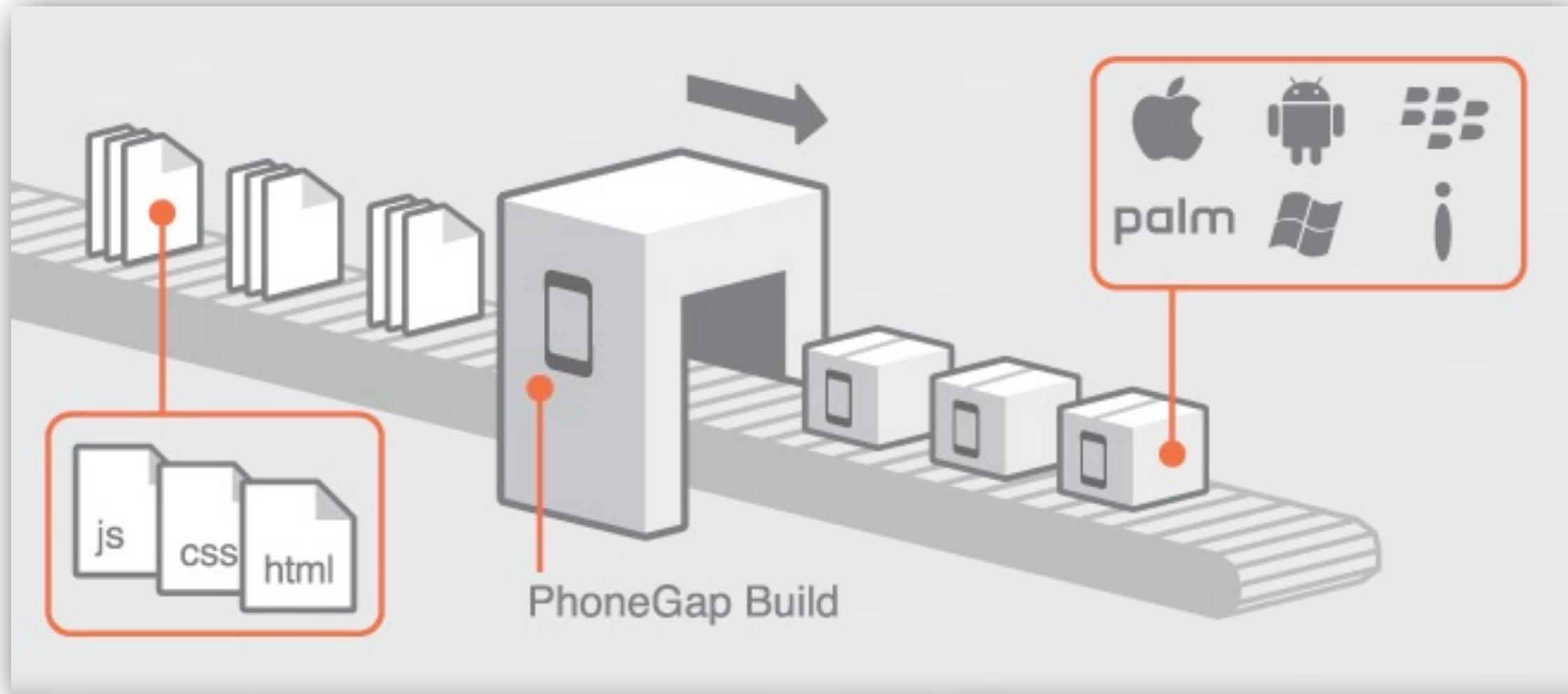
PhoneGap
Client Side Application



https://github.com/cyber sonic/jquerymobile_phonegap_demo

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PhoneGap Build



SUPPORTED



COMING SOON

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Thoughts?



[https://github.com/cyberonic/](https://github.com/cyberonic/jquerymobile_phonegap_demo)
jquerymobile phonegap demo