

MOBILE DEVELOPMENT

With jQuery Mobile & PhoneGap
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AGENDA

- Learn to build mobile web sites using jQueryMobile and HTML5
- Learn about PhoneGap for building native iPhone/iOS & Android Apps

JQUERYMOBILE

A touch optimized HTML5
Framework for building mobile
websites and apps.



ALPHA

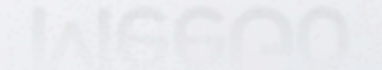
jQuery Mobile is currently in Alpha 2, so keep in mind that not all features are implemented or stable at this time.



TOUCH OPTIMIZED?

- 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.
- Optimized Form Controls

MOBILE OS SUPPORT



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!

WHAT'S IN JQUERY MOBILE?

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

LET'S GET STARTED

```
<!doctype html>
<html>
  <head>
    <title>jQuery Mobile Example</title>
    <link rel="stylesheet"
      href="jquery.mobile-1.0a2/jquery.mobile-1.0a2.css" />
    <script src="jquery-1.4.4.min.js"></script>
    <script src="jquery.mobile-1.0a2/jquery.mobile-1.0a2.js"></script>
  </head>
  <body>

  </body>
</html>
```

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

DATA-ROLE'S

- 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"

DATA-WHAT?

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

PAGES

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

EXAMPLE PAGES

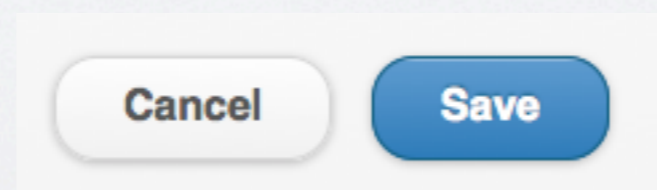
```
<div data-role="page" id="home">
  <div data-role="header">
    <h1>Home</h1>
    <a href="#settings" data-role="button">
      Settings
    </a>
  </div>
</div>
<div data-role="page" id="settings" data-theme="b">
  <div data-role="header">
    <h1>Settings</h1>
  </div>
  <div data-role="content">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

THEME'S

- 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"`



BUTTON ICONS

- Comes with several icons
- You can use your own custom icons easily.

Swatch "A" themed buttons



Swatch "B" themed buttons

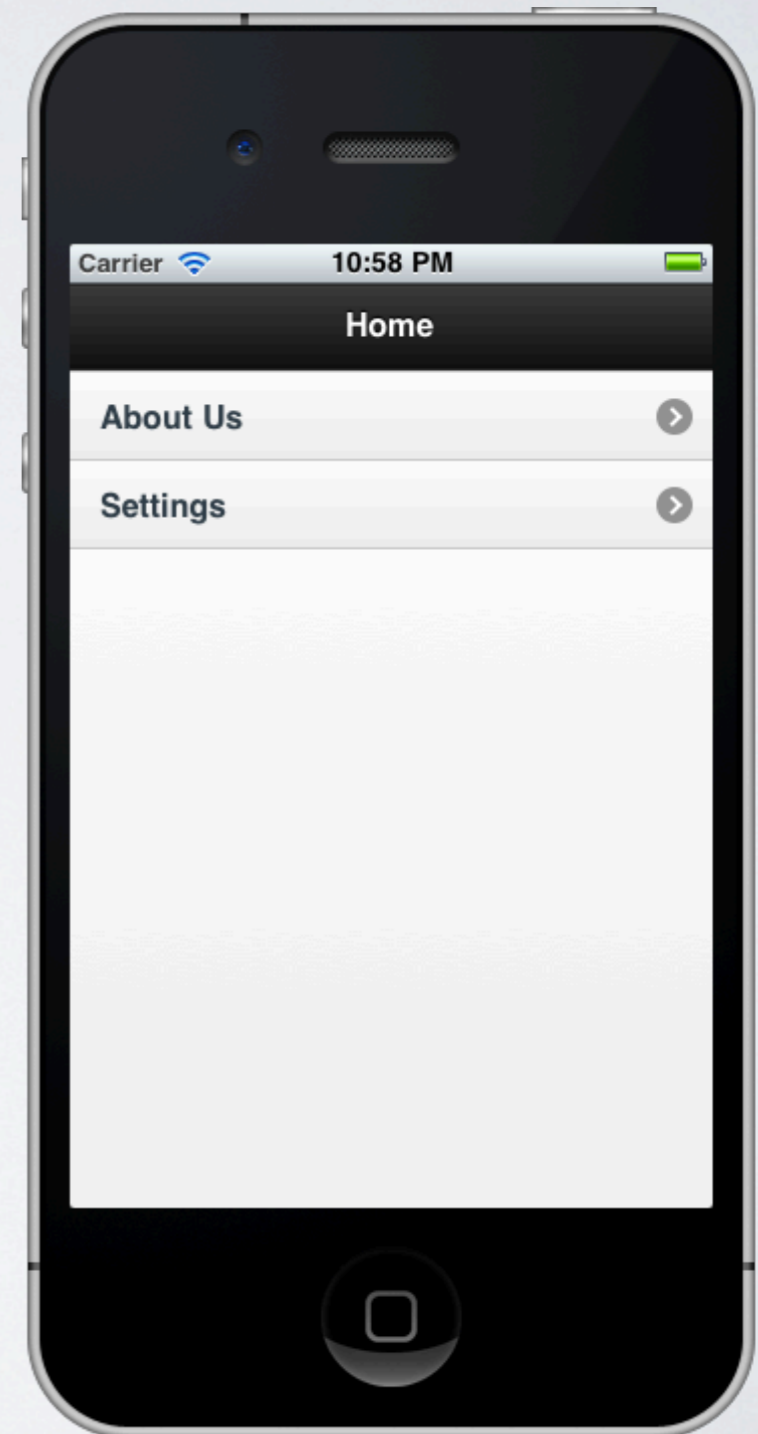


Swatch "C" themed buttons



LISTVIEW

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

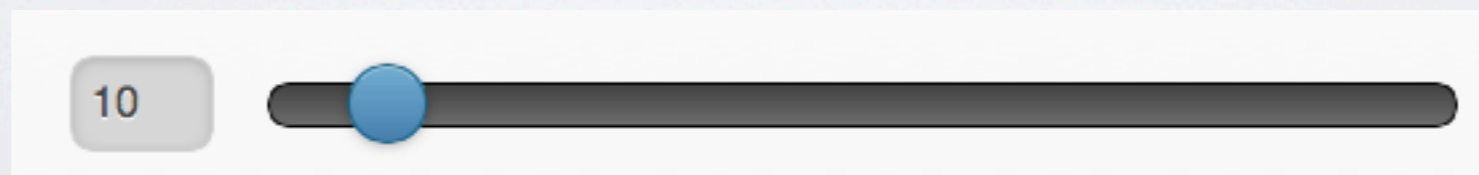


More Advanced List View
options available, see docs.

WORKING WITH FORMS

- Form Element's should be wrapped in a div with a data-role="fieldcontain" attribute.

```
<form>  
  <div data-role="fieldcontain">  
    <label for="slider">Slider:</label>  
    <input type="range" name="slider" id="slider" value="0" min="0" max="100" />  
  </div>  
</form>
```



ALPHA LIMITATIONS

- JavaScript API's seem to be in flux. It can be tricky to update content dynamically.
- Still waiting on some handy things like a date picker.
- Overall it's a very functional alpha, but there certainly are some bugs.

JQUERY MOBILE

- We've just scratched the surface of what you can do with jQuery Mobile.
 - Checkout: <http://jquerymobile.com/>

PHONEGAP

www.phonegap.com

WHAT IS PHONEGAP?

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

PHONEGAP.JS

- 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 More see docs.phonegap.com for a full reference.

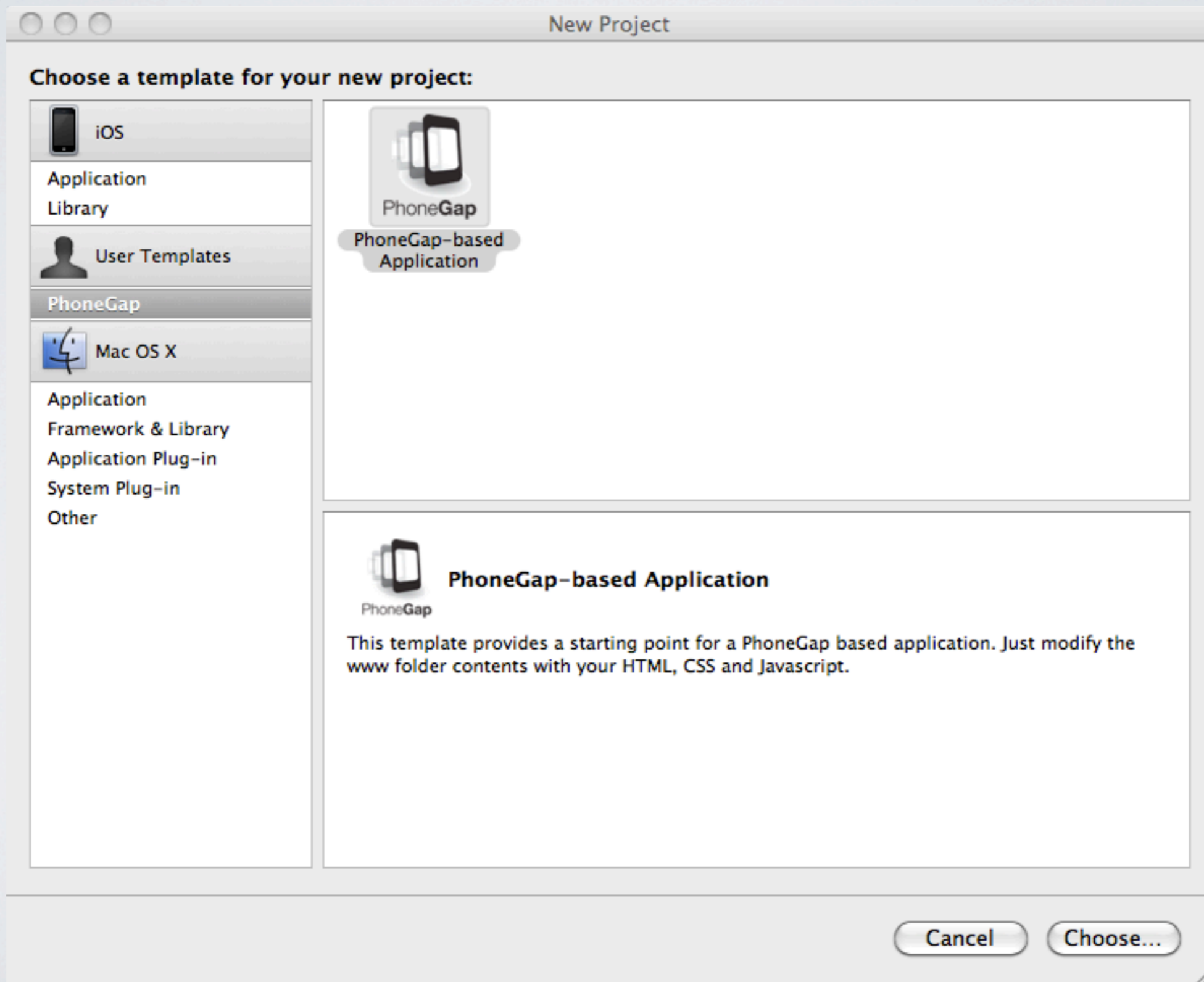
PHONEGAP PLUGINS

- There are several plugins for accessing functionality that may be platform specific. For Example:
 - Keychain Access (for storing sensitive data on iOS)
 - PayPal API Plugin
 - Native iPhone Controls

CREATING AN IOS APP

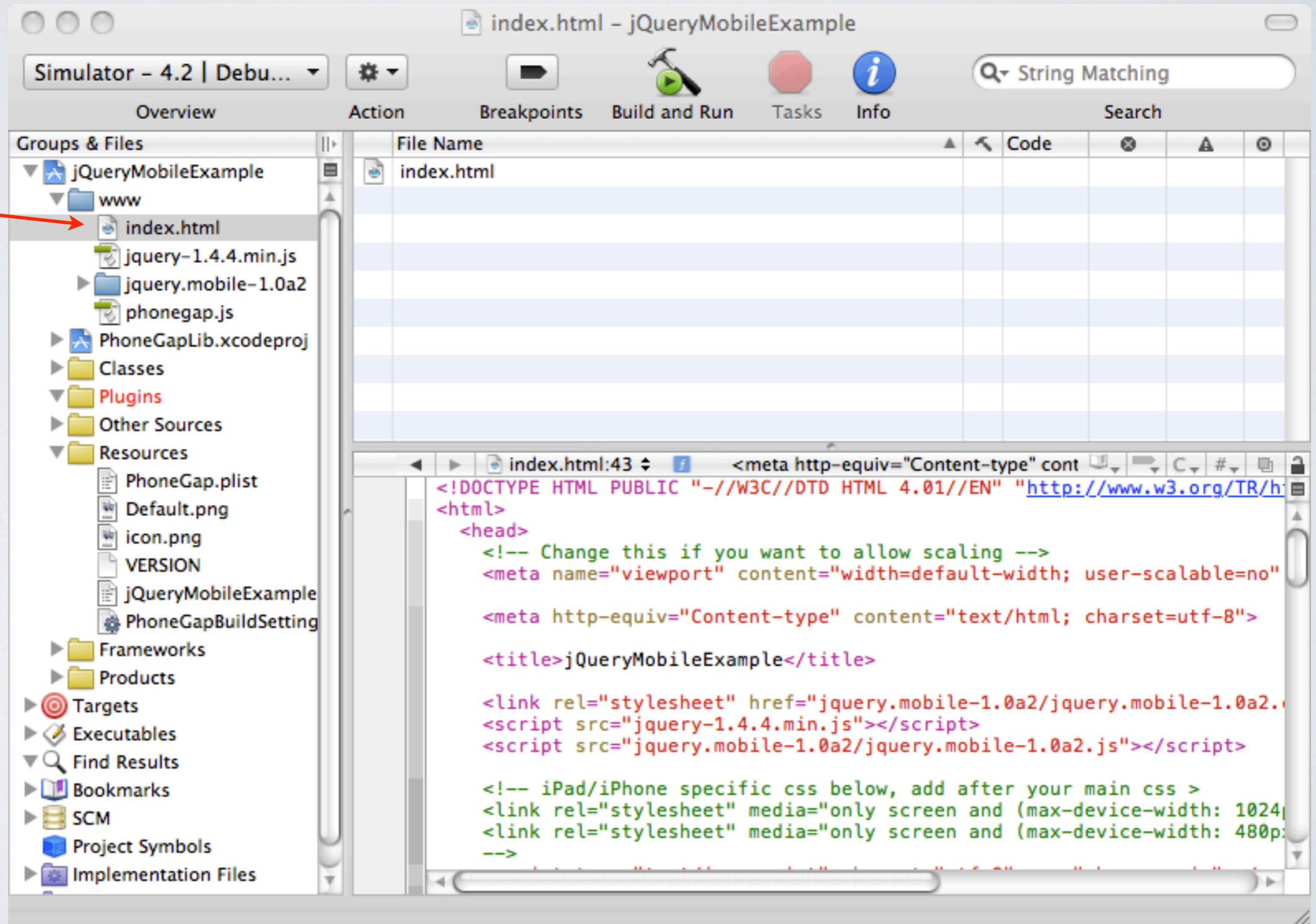
- Download Xcode and the iOS SDK from Apple
- Download PhoneGap
- Run the PhoneGapLibInstaller.pkg installer
- Launch Xcode, create a new project, and select the PhoneGap Template
- Click *Build & Run* to launch the iOS Simulator.

CREATING AN IOS APP



CREATING AN IOS APP

Edit
index.html



CREATING AN IOS APP

- Place any css, js, or images your app will use in the **www** folder.
- Edit Resources/Default.png this is your startup image.
- Edit Resources/icon.png this is your app icon.
- Edit Resources/AppName-Info.plist settings such as Bundle Display Name.

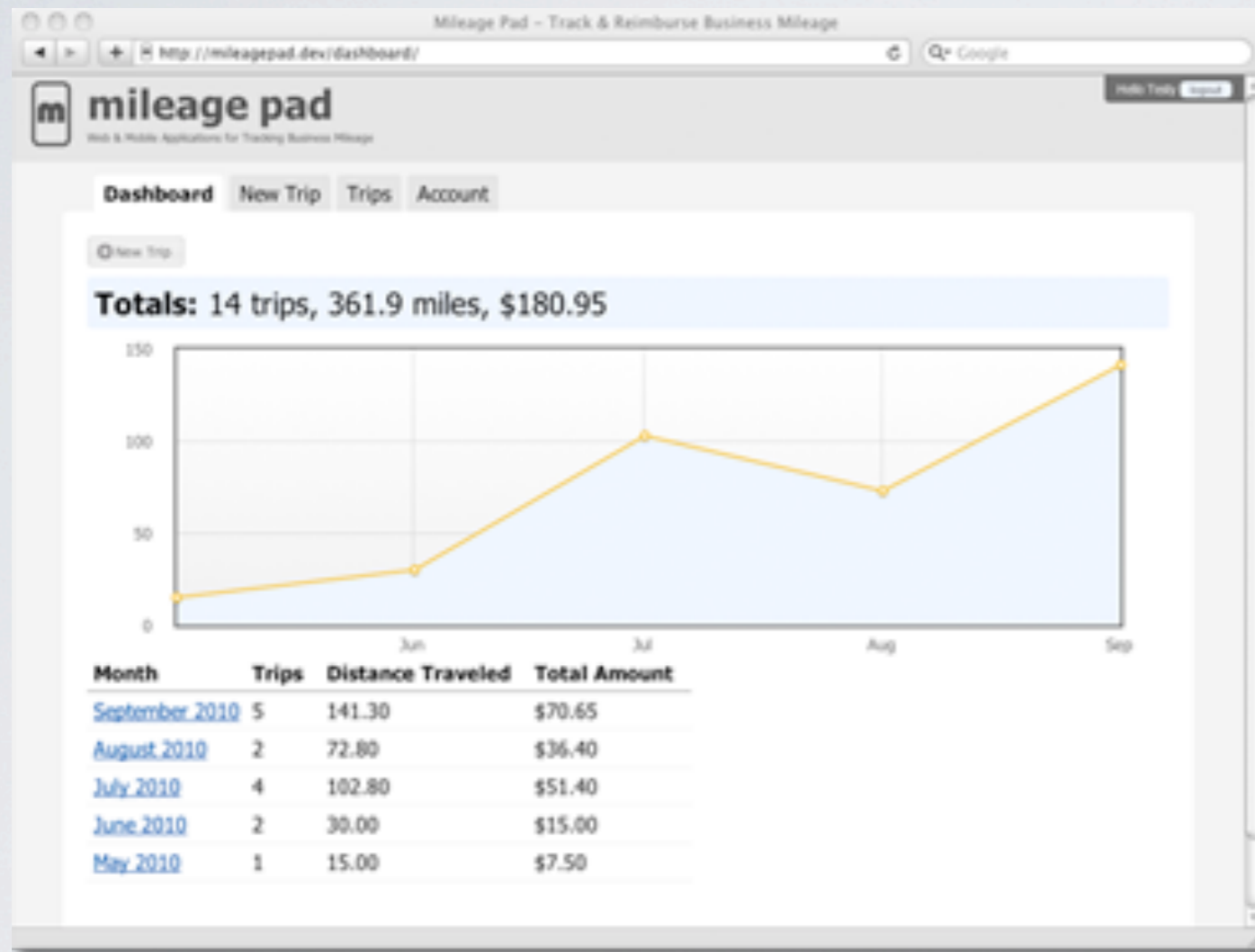
IPHONE DEMO

CREATING AN ANDROID APP

- Download and install the Android SDK
 - Tips: <http://www.petefreitag.com/item/763.cfm>
- Install Android Eclipse Plugin
- Create a New Android Project in Eclipse
 - See: <http://wiki.phonegap.com/w/page/30862722/phonegap-android-eclipse-quickstart>

ANDROID DEMO

DEMO MILEAGEPAD.COM



Carrier 12:49 AM

Back Trip

Category:

Date: 12/14/2010

Distance: 22

Purpose: Bank, Utica NY

Save Trip

ColdFusion Powered:
MileagePad.com

QUESTIONS?

Thank You!

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