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.
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

- iOS
- Android
- BlackBerry
- bada
- Windows Phone
- palm webOS
- symbian
- MeeGo
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)
- Button’s (Including a set of stock icons)
- Form Controls (Slider’s, Toggles, enhanced radio, checkbox, etc)
- List View Control
LET'S GET STARTED

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

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

```html
<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">
    Lorum 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
• 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.
LISTVIEW

More Advanced List View options available, see docs.

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WORKING WITH FORMS

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

```html
<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/
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

Choose a template for your new project:

- iOS
  - Application
  - Library
  - User Templates
- PhoneGap
- Mac OS X
  - Application
  - Framework & Library
  - Application Plug-in
  - System Plug-in
  - Other

PhoneGap-based Application

This template provides a starting point for a PhoneGap based application. Just modify the www folder contents with your HTML, CSS and Javascript.
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
ColdFusion Powered:
MileagePad.com
QUESTIONS?

Thank You!
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