

# Going Mobile with jQuery

Nathaniel T. Schutta

# Who am I?

- Nathaniel T. Schutta  
<http://www.ntschutta.com/jat/>
- @ntschutta
- Foundations of Ajax & Pro Ajax and Java Frameworks
- UI guy
- Author, speaker, teacher
- More than a couple of web apps

# The Plan

- Why mobile?
- Why jQuery Mobile?
- Basics
- Events
- Methods, layout, themes
- Native vs. HTML

Market is moving.

Mobile.

Next big thing.

Growing fast.

Faster than Google's  
internal predictions.

<http://mashable.com/2011/02/28/schmidt-mobile-growth/>

Super Bowl ads.

Chrysler: 102x mobile  
vs. 48x desktop.

GoDaddy: 315x mobile  
vs. 38x desktop.

Millions of mobile  
devices...more daily.



i\* - iPad, iPhone etc.

Smart phone market is  
growing rapidly.

[http://www.asymco.com/2010/12/20/  
what-has-android-done-for-apple/](http://www.asymco.com/2010/12/20/what-has-android-done-for-apple/)

Half of US population  
by end of 2011.

<http://www.asymco.com/2010/12/04/half-of-us-population-to-use-smartphones-by-end-of-2011/>



@NielsenWire  
Nielsen

Apps represent 56% of smartphone usage,  
email/messaging 19%, phone 15%, web  
browsing 9% - Nielsen's Carson on apps  
**#consumer360**

21 Jun via [TweetDeck](#)

TWEET DECK

[https://twitter.com/#!/NielsenWire/  
status/83235442341842944](https://twitter.com/#!/NielsenWire/status/83235442341842944)

iOS users download  
about 5 apps a month.

[http://www.asymco.com/2011/01/18/ios-  
users-download-about-5-apps-every-month/](http://www.asymco.com/2011/01/18/ios-users-download-about-5-apps-every-month/)

Apple has already passed  
10 billion downloads.

<http://www.apple.com/itunes/10-billion-app-countdown/>

Now over 14 billion apps.

[http://www.asymco.com/2011/06/13/  
itunes-now-costs-1-3-billionyr-to-run/](http://www.asymco.com/2011/06/13/itunes-now-costs-1-3-billionyr-to-run/)

A vibrant, action-packed scene from the Angry Birds game. In the center, a large, red, feathery bird with a black mask and a yellow beak is shown in mid-air, looking intensely at the viewer. Behind it, several grey stone structures resembling castle towers are being demolished by powerful explosions, sending clouds of smoke and debris flying. To the left, a green pig with an orange tuft of hair is seen running away from the destruction. In the top right corner, a white pig with a black mask and a green pig with a blue mask are also in flight. A small blue bird is visible in the bottom right corner. The background features a bright blue sky with fluffy white clouds and a lush green grassy field at the bottom.

# ANGRY BIRDS HD

LOADING...

Somewhat successful!

Gets business' attention!

Remember when we  
“needed a website?”

Almost like apps today...

What do we do?

Just build a  
native app right?

Well, maybe. Maybe not.

Do you \*need\*  
a native app?

Is HTML5 enough?

Something like 3 billion  
HTML capable phones.

Yes, 3 billion.

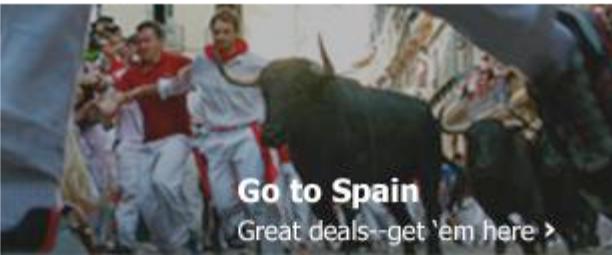
[http://www.quirksmode.org/blog/archives/2011/01/operator\\_billin.html](http://www.quirksmode.org/blog/archives/2011/01/operator_billin.html)

Delta.

AT&T 3G 1:32 PM

**DELTA**  [Log in](#)

[Flight Status & Updates >](#)

  
**Go to Spain**  
Great deals--get 'em here >

[Itineraries & Check-in >](#)

[Flight Schedules >](#)

[Book a Flight >](#)

[Book Award Trip >](#)

[Deals & Offers >](#)

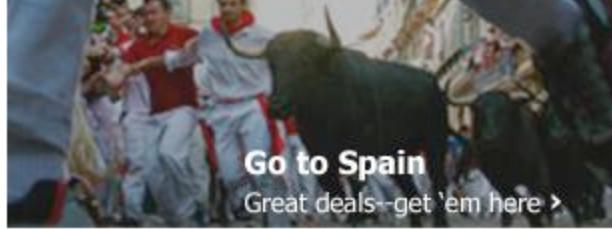




AT&T 3G 1:34 PM

**UsableNet Inc.**

mobile.usablenet.com/... X Google

  
**Go to Spain**  
Great deals--get 'em here >

[Itineraries & Check-in >](#)

[Flight Schedules >](#)

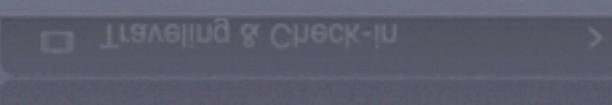
[Book a Flight >](#)

[Book Award Trip >](#)

[Deals & Offers >](#)

[Traveling & Check-in >](#)





AT&T 3G 1:34 PM

**Delta mobile**

mobile.usablenet.com/... C Google

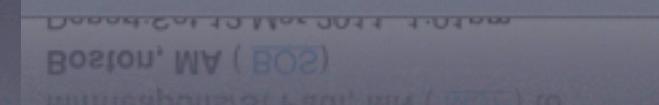
**DELTA** 

**My Trips**

Nathaniel T Schutta , here are your upcoming and saved trips.  
4 Itineraries displayed matching [6490162374](#)

**Minneapolis/St Paul, MN ( MSP) to Madison, WI (MSN)**  
Depart:Fri 25 Feb 2011, 5:15pm  
Confirmation # **HHW7CP**

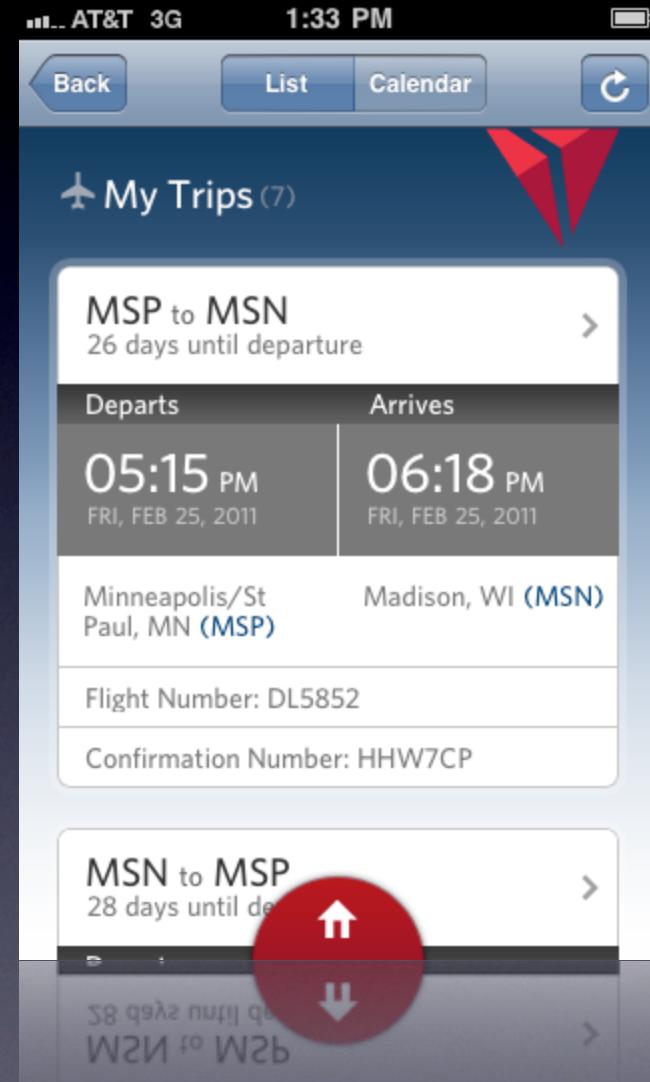
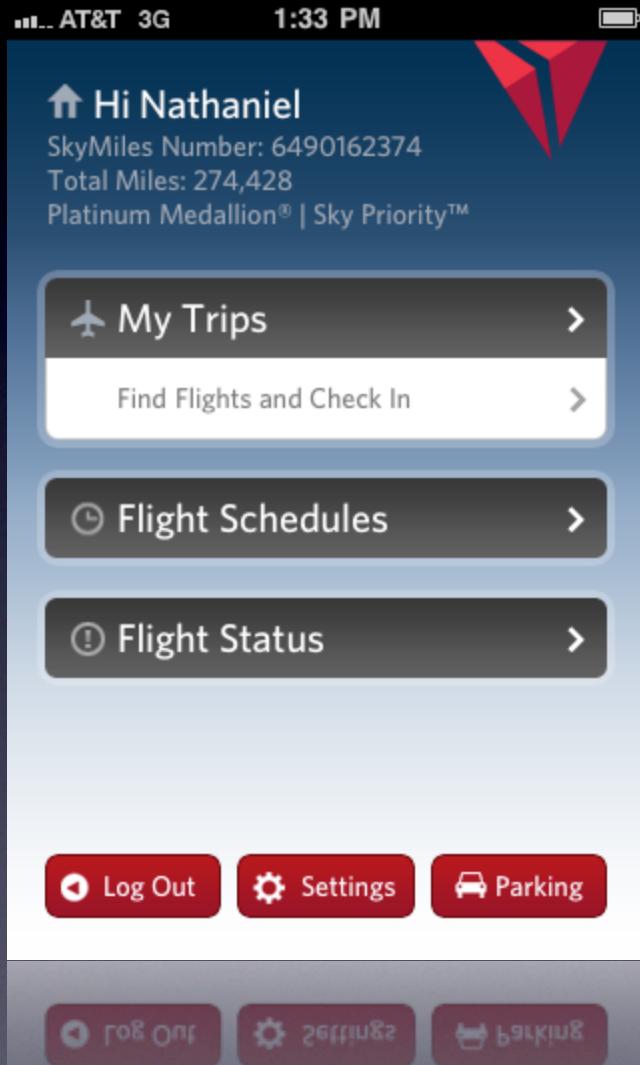
**Minneapolis/St Paul, MN ( MSP) to Boston, MA ( BOS)**  
Depart:Sat 12 Mar 2011 1:01pm



That works.

It's serviceable.

Here's a native look.



AT&T 3G 1:34 PM

Delta mobile  
mobile.usablenet.com/... Google

**DELTA**

**My Trips**

Nathaniel T Schutta , here are your upcoming and saved trips.  
4 Itineraries displayed matching [6490162374](#)

**Minneapolis/St Paul, MN ( MSP) to Madison, WI (MSN)**  
Depart:Fri 25 Feb 2011, 5:15pm  
Confirmation # **HHW7CP**

**Minneapolis/St Paul, MN ( MSP) to Boston, MA ( BOS)**  
Depart:Sat 12 Mar 2011 1:01pm

**(BOS) AM,notsoB**  
**of (BZN) NM, like I've been doing all day**

AT&T 3G 1:33 PM

Back List Calendar

**My Trips (7)**

**MSP to MSN**  
26 days until departure

Departs	Arrives
05:15 PM FRI, FEB 25, 2011	06:18 PM FRI, FEB 25, 2011

Minneapolis/St Paul, MN (MSP)      Madison, WI (MSN)

Flight Number: DL5852  
Confirmation Number: HHW7CP

**MSN to MSP**  
28 days until de

Which do you prefer?

Could we make the  
mobile site better?

Building native apps  
isn't always easy.

Some key questions.

# Which OSes?

Can we support  
multiple OSes?

# Which handsets?

# Which carriers?

# Which app markets?

Android fragmentation,  
Black Berry, Palm...

Ovi Store: Recommended

http://store.ovi.com/ Google

html5 Gmail Saved Tabs Firebug Lite Dropbox GitHub pinboard read later

Sign in | Register

Select your cell phone | English (US)

# Bowling Superstars

Home Search for content for your cell phone

Recommended Applications Games Audio & Video Personalization

FREE SNAKE

Snake Revolution Arcade ★★★★★

eBuddy Mobile Messenger Social Networks ★★★★★

Snaptu Social Networks ★★★★★

gn GULF NEWS

Gulf News News & Info ★★★★★

WhatsApp Messenger Social Networks ★★★★★

Super Miners Demo Puzzle ★★★★★

KORA ROAD TO HELL

Road to Hell 3D Sports ★★★★★

Free Jumpy bug

JumpyBug Arcade ★★★★★

dubizzle.com

City guides & Maps ★★★★★

Shazam

Music ★★★★★

CricThrill

Sports ★★★★★

Moodagent Free

Music ★★★★★

Wow, that looks great!

But here's step 2...

Ovi Store: Recommended

http://store.ovi.com/ Google

html5 Gmail Saved Tabs Firebug Lite Dropbox GitHub pinboard read later

Sign In | Register

Select your cell phone | English (US)

## Nokia Cell Phone Selector

Browse content made specifically for your cell phone by selecting it in the list below.  
Don't have a Nokia cell phone or just want to browse the store? No problem - just pick any device you'd like. You can always change it later!

Show me:

Classic    Flip  
Slide    Full keyboard  
Touch    All cell phones

Nokia 2700 Classic	Nokia 2710 Navigation Edition	Nokia 2730 classic	Nokia 3120 classic	Nokia 3600 slide
Nokia 3710 fold	Nokia 3720 classic	Nokia 5130 XpressMusic	Nokia 5220 XpressMusic	Nokia 5228

OK

★★★★★ ★★★★★ ★★★★★ ★★★★★ ★★★★★

Road to Hell 3D Sports JumpyBug Arcade dubizzle.com City guides & Maps Shazam Music CricThrill Sports Moodagent Free Music

Bummer.

Not so user friendly...

Some mobile apps -  
exclusive to handsets.

Still want to build  
a native app?

Reality - cost.

Time.

Skill sets.

What do you do?

Great! HTML5.

Mobile browsers excellent  
HTML5 support.

More likely than  
desktop peers.

The web...and HTML5,  
gives us an out.

How do we get  
consistent look and feel?

How about a touch  
optimized framework?

Do we start from scratch?

No!

Though some people do...

Leverage a library.

# jQuery Mobile.

# Why jQuery Mobile?

Unified UI.

Support for a wide  
variety of hardware.

Support for vast majority  
of mobile browsers.

**A-grade** - Full enhanced experience with Ajax-based animated page transitions.

- **Apple iOS 3.2-5.0** - Tested on the original iPad (4.3 / 5.0), iPad 2 (4.3), original iPhone (3.1), iPhone 3 (3.2), 3GS (4.3), and 4 (4.3 / 5.0)
- **Android 2.1-2.3** - Tested on the HTC Incredible (2.2), original Droid (2.2), Nook Color (2.2), HTC Aria (2.1), Google Nexus S (2.3). Functional on 1.5 & 1.6 but performance may be sluggish, tested on Google G1 (1.5)
- **Android Honeycomb** - Tested on the Samsung Galaxy Tab 10.1 and Motorola XOOM
- **Windows Phone 7-7.5** - Tested on the HTC Surround (7.0) HTC Trophy (7.5), and LG-E900 (7.5)
- **Blackberry 6.0** - Tested on the Torch 9800 and Style 9670
- **Blackberry 7** - Tested on BlackBerry® Torch 9810
- **Blackberry Playbook** - Tested on PlayBook version 1.0.1 / 1.0.5
- **Palm WebOS (1.4-2.0)** - Tested on the Palm Pixi (1.4), Pre (1.4), Pre 2 (2.0)
- **Palm WebOS 3.0** - Tested on HP TouchPad
- **Firebox Mobile (Beta)** - Tested on Android 2.2
- **Opera Mobile 11.0**: Tested on the iPhone 3GS and 4 (5.0/6.0), Android 2.2 (5.0/6.0)
- **Meego 1.2** - Tested on Nokia 950 and N9
- **Kindle 3 and Fire**: Tested on the built-in WebKit browser for each
- **Chrome Desktop 11-15** - Tested on OS X 10.6.7 and Windows 7
- **Firefox Desktop 4-8** - Tested on OS X 10.6.7 and Windows 7
- **Internet Explorer 7-9** - Tested on Windows XP, Vista and 7 (minor CSS issues)
- **Opera Desktop 10-11** - Tested on OS X 10.6.7 and Windows 7

**B-grade** - Enhanced experience except without Ajax navigation features.

- **Blackberry 5.0**: Tested on the Storm 2 9550, Bold 9770
- **Opera Mini (5.0-6.0)** - Tested on iOS 3.2/4.3
- **Nokia Symbian^3** - Tested on Nokia N8 (Symbian^3), C7 (Symbian^3), also works on N97 (Symbian^1)

**C-grade** - Basic, non-enhanced HTML experience that is still functional

- **Blackberry 4.x** - Tested on the Curve 8330
- **Windows Mobile** - Tested on the HTC Leo (WInMo 5.2)
- **All older smartphone platforms and featurephones** - Any device that doesn't support media queries will receive the basic, C grade experience

**Not Officially Supported** - May work, but haven't been thoroughly tested or debugged

- **Samsung Bada** - The project doesn't currently have test devices or emulators, but current support is known to be fairly good. Support level undecided for 1.0

Markup driven.

Build on clean HTML.

Progressive enhancement.

Supports accessibility.

Built on jQuery core.

# Familiar syntax.

Small - 12k compressed.

# HTML5.

Did I mention  
accessibility?

Leverages ThemeRoller.

Widget auto-  
initialization.

Happens before  
document.ready.

Touch events.

# Plugins!

# Page Structure.

# HTML5.

# Divs with data-roles.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Page Title</title>
    <link rel="stylesheet" href="../javascript/jqueryMobile/jquery.mobile-1.0a2.css" />
    <script src="../javascript/jquery-1.4.3.js" type="text/javascript"></script>
    <script src="../javascript/jqueryMobile/jquery.mobile-1.0a2.js" type="text/javascript"></script>
  </head>
  <body>
    <div data-role="page">
      <div data-role="header">
        <h1>Page Title</h1>
      </div>
      <div data-role="content">
        <p>Page content goes here.</p>
      </div>
      <div data-role="footer">
        <h4>Page Footer</h4>
      </div>
    </div>
  </body>
</html>
```

Lab time!

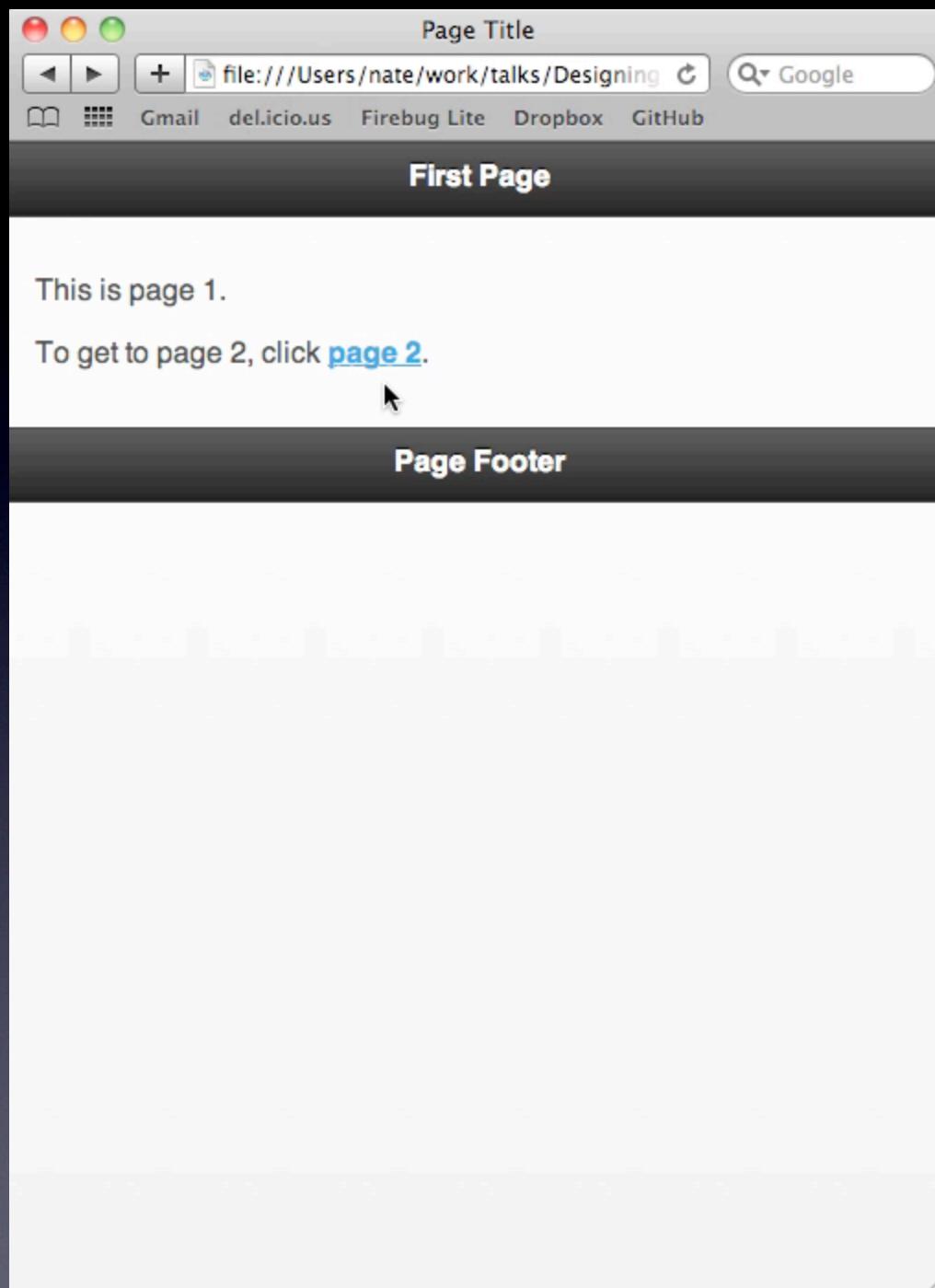
# Page Structure

- Create a basic page with a header, content area and a footer
- \${extract}/jQuery\_mobile\_workshop/labs/page\_structure/one\_page.html

One document can  
contain multiple pages.

Stack the divs.

Just give each page a  
unique ID.



```
<div data-role="page" id="page1">
    <div data-role="header">
        <h1>First Page</h1>
    </div>
    <div data-role="content">
        <p>This is page 1.</p>
        <p>To get to page 2, click <a href="#page2">page 2</a>.</p>
    </div>
    <script href="http://jquerymobile/jquery.mobile-1.0a2.css" type="text/javascript"></script>
    <div data-role="footer">
        <h4>Page Footer</h4>
    </div>
</div>

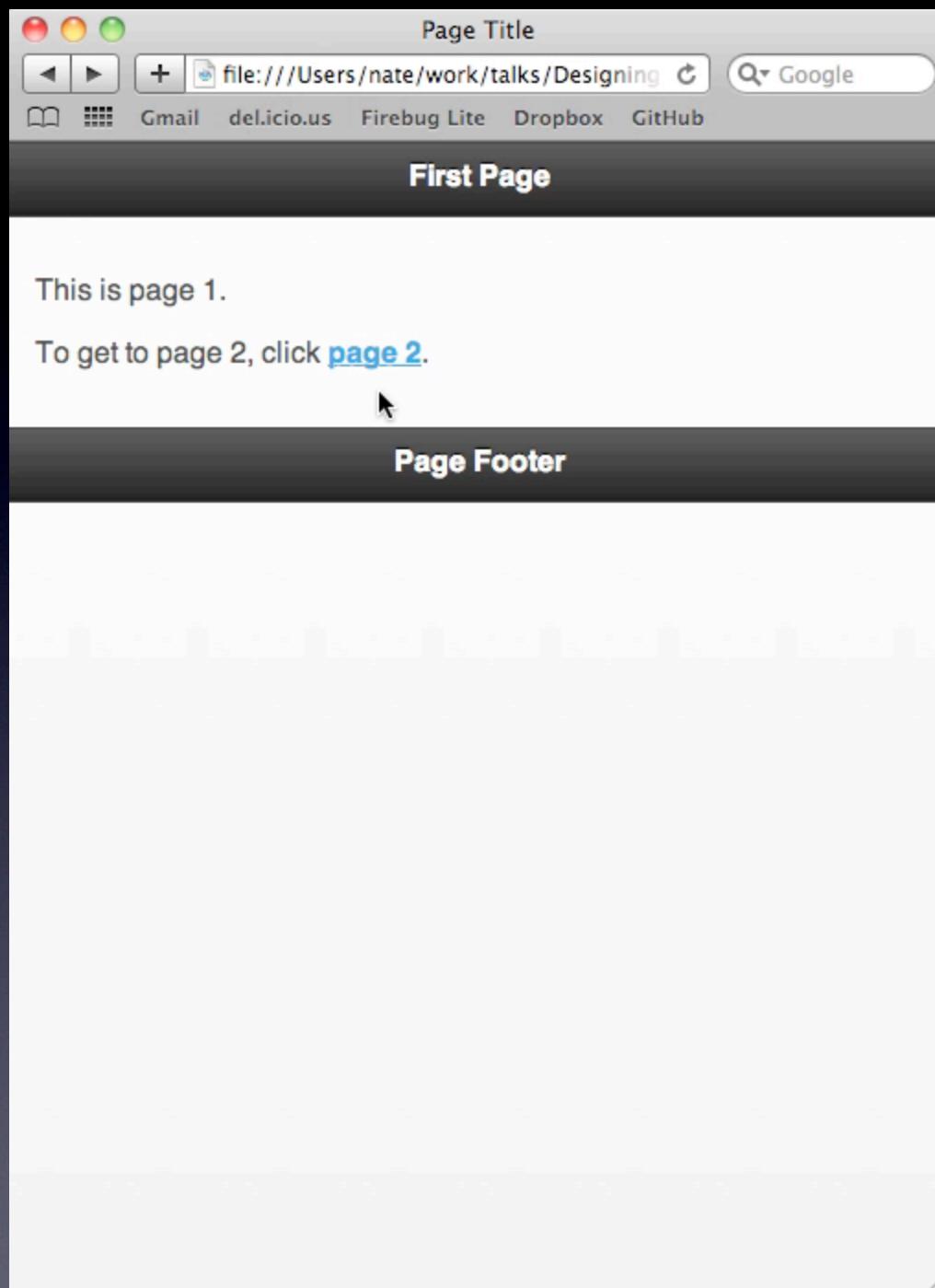
<div data-role="page" id="page2">
    <div data-role="header">
        <h1>Second Page</h1>
    </div>
    <div data-role="content">
        <p>This is page 2.</p>
        <p>More stuff goes here.</p>
    </div>
    <div data-role="footer">
        <h4>Page Footer</h4>
    </div>
</div>
```

# Page transitions.

CSS based.

- slide
- slideup
- slidedown
- pop
- fade
- flip

Add a data  
transition attribute.



```
<div data-role="page" id="page1">
  <div data-role="header">
    <h1>First Page</h1>
  </div>
  <div data-role="content">
    <p>This is page 1.</p>
    <p>To get to page 2, click <a href="#page2">page 2</a>.</p>
  </div>
  <div data-role="footer">
    <h4>Page Footer</h4>
  </div>
</div>

<div data-role="page" id="page2">
  <div data-role="header">
    <h1>Second Page</h1>
  </div>
  <div data-role="content">
    <p>This is page 2.</p>
    <p>More stuff goes here.</p>
  </div>
  <div data-role="footer">
    <h4>Page Footer</h4>
  </div>
</div>
```

Lab time!

# Page Structure - 2

- Add a second page
- Create a link from the first to the second
- Try different transitions
- \${extract}/jQuery\_mobile\_workshop/labs/page\_structure/two\_page.html

# Why data-x?

# HTML5.

data- is a storage area.

Markup is valid.

And you still get the  
bits you need.

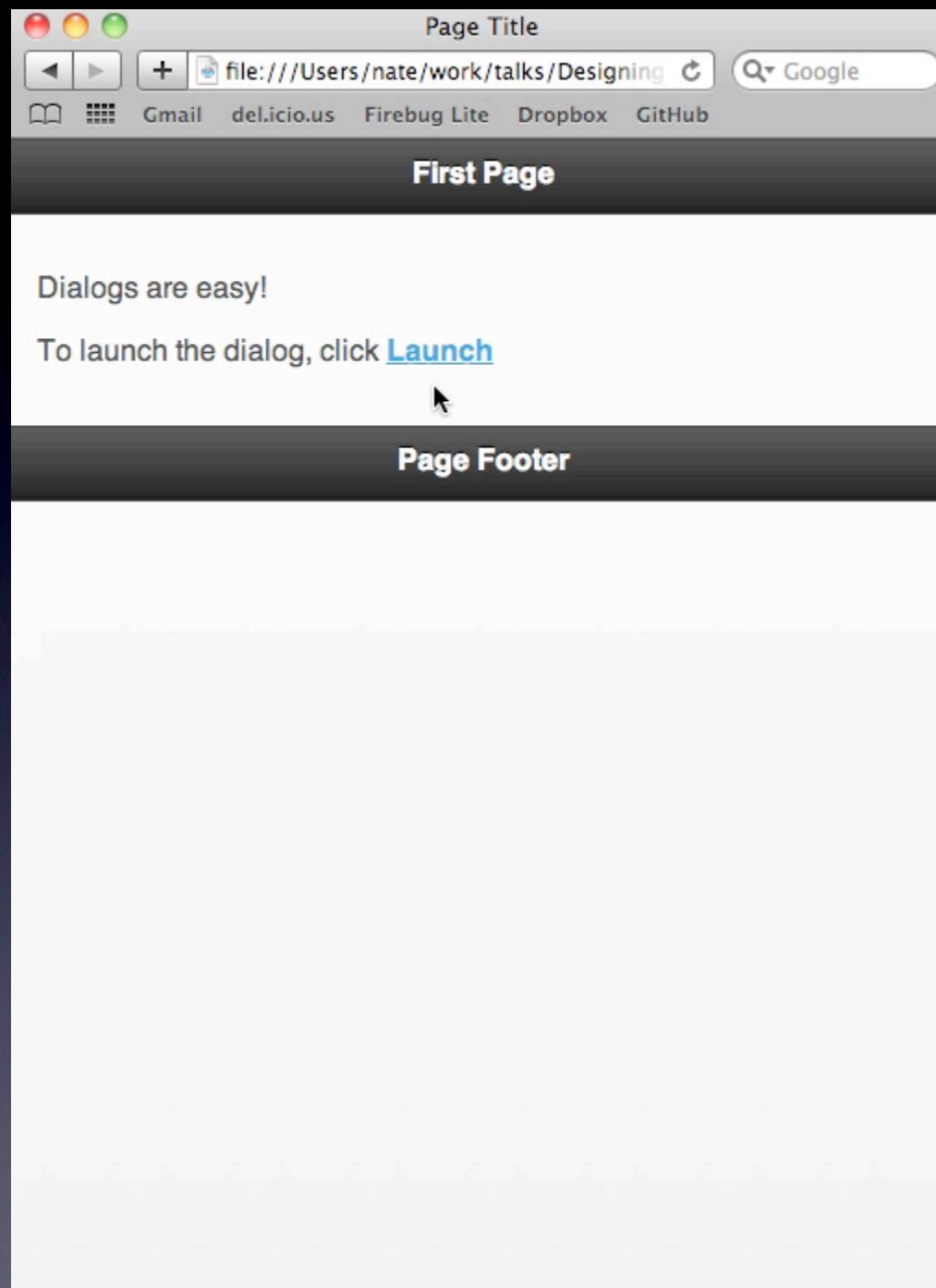
# Dialogs.

Any page can be a dialog.

We modify the link  
again...dialog relation.

Standard page  
transitions work.

Pop, slideup and flip are  
most “dialog like.”



```
<div data-role="page" id="page1">
<div data-role="header">
<h1>First Page</h1>
</div>
<div data-role="content">
<p>Dialogs are easy!</p>
<p>To launch the dialog, click
<a href="#" data-transition="pop" data-rel="dialog">Launch</a>
</p>
</div>
<div data-role="footer">
<h4>Page Footer</h4>
</div>
</div>
```

Lab time!

# Dialogs

- Create a basic page that links to the existing dialog.html
- Try different transitions
- Add a cancel link to the dialog
- \${extract}/jQuery\_mobile\_workshop/labs/dialog/page\_with\_dialog.html

Linked pages are loaded  
via an Ajax call.

Navigation modifies the  
location hash.

Allows for bookmarking!

Don't want an Ajax call?

# Modify link attributes.

Add: rel=external or  
specify a target.

# Toolbars.

# Headers and footers.

Header = page title and  
up to two buttons.

Footer = text and buttons.

Nav bar widget.

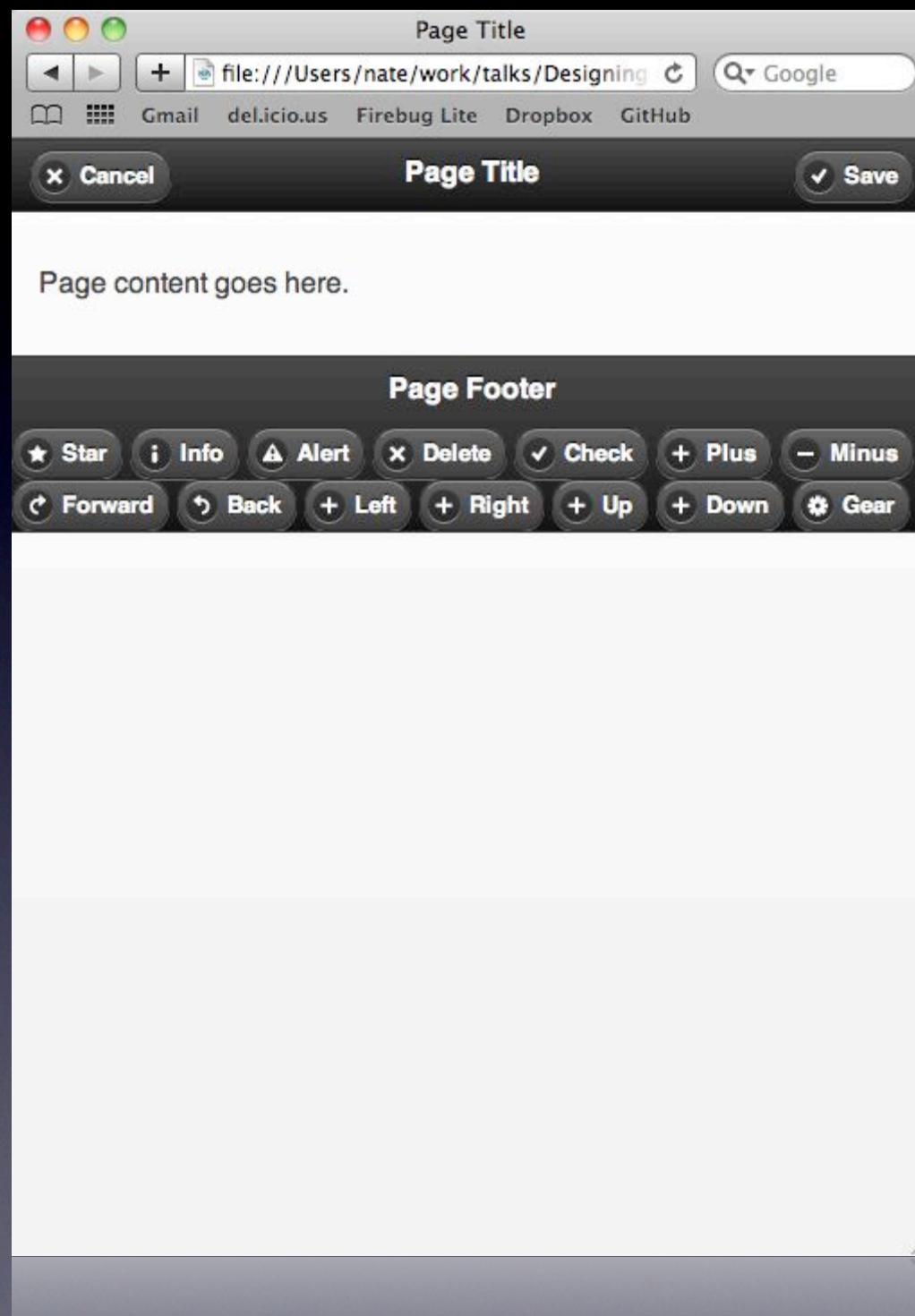
Where do the buttons  
come from again?

First link - left button.  
Second link - right button.

And we get icons!

Sprite.

Simply add an attribute.



```
<div data-role="page">
  <div data-role="header">
    <h1>Page Title</h1>
    <a href="index.html" data-icon="delete">Cancel</a>
    <a href="index.html" data-icon="check">Save</a>
  </div>
  <div data-role="content">
    <p>Page content goes here.</p>
  </div>
  <div data-role="footer">
    <h4>Page Footer</h4>
    <a href="index.html" data-role="button" data-icon="star">Star</a>
    <a href="index.html" data-role="button" data-icon="info">Info</a>
    <a href="index.html" data-role="button" data-icon="alert">Alert</a>
    <a href="index.html" data-role="button" data-icon="delete">Delete</a>
    <a href="index.html" data-role="button" data-icon="check">Check</a>
    <a href="index.html" data-role="button" data-icon="plus">Plus</a>
    <a href="index.html" data-role="button" data-icon="minus">Minus</a>
    <a href="index.html" data-role="button" data-icon="forward">Forward</a>
    <a href="index.html" data-role="button" data-icon="back">Back</a>
    <a href="index.html" data-role="button" data-icon="left">Left</a>
    <a href="index.html" data-role="button" data-icon="right">Right</a>
    <a href="index.html" data-role="button" data-icon="up">Up</a>
    <a href="index.html" data-role="button" data-icon="down">Down</a>
    <a href="index.html" data-role="button" data-icon="gear">Gear</a>
  </div>
</div>
```

And much more!

Navbars, persistent  
footers, fullscreen...

Lab time!

# Toolbars

- jQuery Mobile can add a back button
- Have jQuery Mobile create the back button
- Change the back button's text
- \${extract}/jQuery\_mobile\_workshop/labs/toolbars/two\_page\_back\_button.html

# Toolbars - 2

- Add a left and right button to the header
- Add a few buttons to the footer
- Experiment with different icons
- \${extract}/jQuery\_mobile\_workshop/labs/toolbars/two\_page\_toolbar.html

# Forms!

Basically the same as  
any old web app.

Form tag, action, method.

One caveat...

Control ids must be  
unique across site.

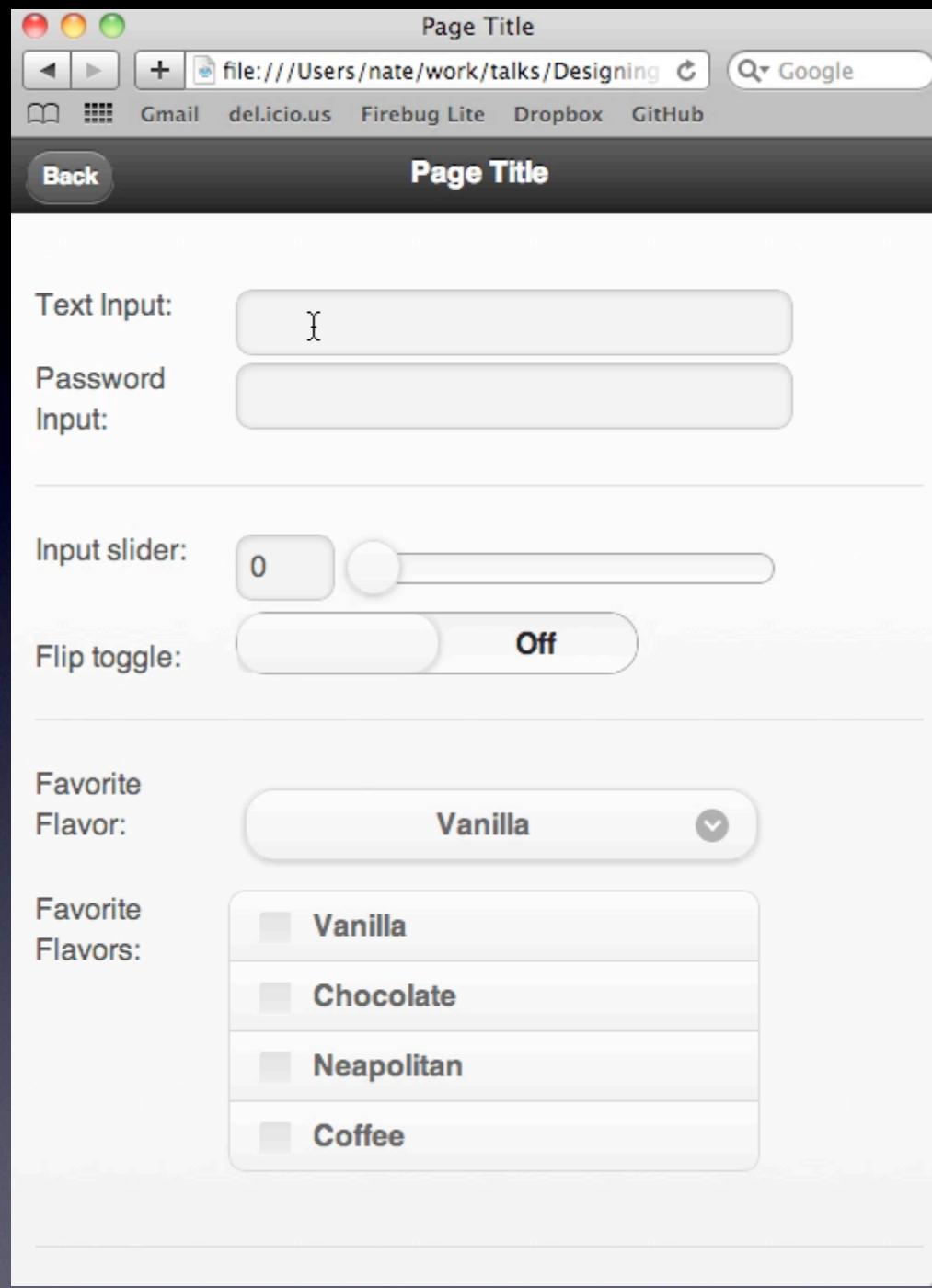
DOM can have multiple  
pages present.

Field containers get  
special styling.

Enhanced controls.

Degrades gracefully.

- text
- search
- slider
- flip toggle switch
- radio buttons
- checkbox
- multiselects



```
<div data-role="fieldcontain">
    <label for="name">Text Input:</label>
    <input type="text" name="name" id="name" value="" />
    <label for="password">Password Input:</label>
    <input type="password" name="password" id="password" value="" />
</div>
<div data-role="fieldcontain">
    <label for="slider">Input slider:</label>
    <input type="range" name="slider" id="slider" value="0" min="0" max="100" />
    <label for="slider2">Flip toggle:</label>
    <select name="slider2" id="slider2" data-role="slider">
        <option value="off">Off</option>
        <option value="on">On</option>
    </select>
</div>
<div data-role="fieldcontain">
    <label for="select-choice-1" class="select">Favorite Flavor:</label>
    <select name="select-choice-1" id="select-choice-1">
        <option value="Vanilla">Vanilla</option>
        <option value="Chocolate">Chocolate</option>
        <option value="Neapolitan">Neapolitan</option>
        <option value="Coffee">Coffee</option>
    </select>
    <fieldset data-role="controlgroup">
        <legend>Favorite Flavors:</legend>
        <input type="checkbox" name="checkbox-1" id="checkbox-1" class="custom" />
        <label for="checkbox-1">Vanilla</label>
        <input type="checkbox" name="checkbox-2" id="checkbox-2" class="custom" />
        <label for="checkbox-2">Chocolate</label>
        <input type="checkbox" name="checkbox-3" id="checkbox-3" class="custom" />
        <label for="checkbox-3">Neapolitan</label>
        <input type="checkbox" name="checkbox-4" id="checkbox-4" class="custom" />
```

Lab time!

# Forms

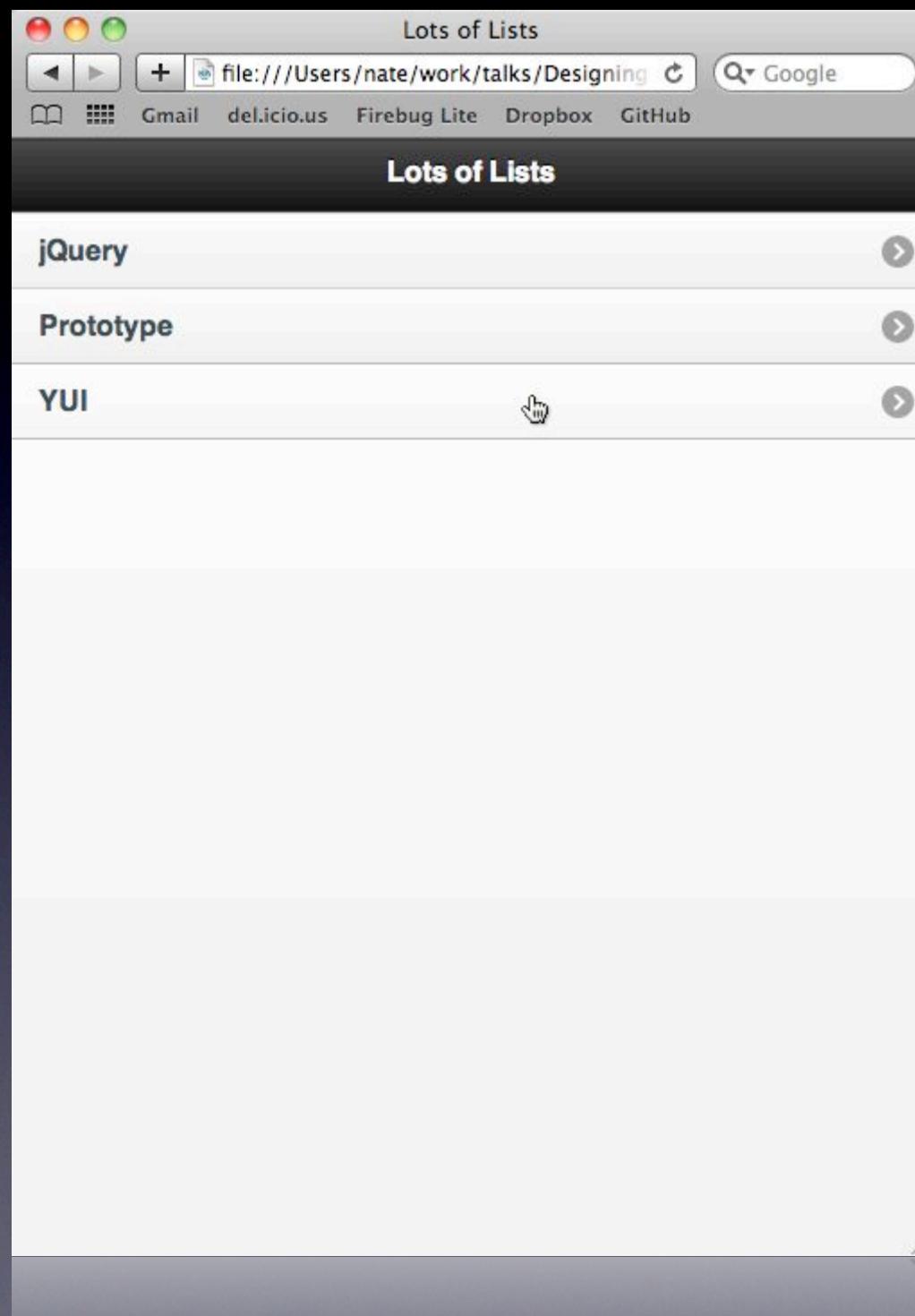
- Add a form
- Experiment with various form elements
- Add a field container
- Add a flip toggle switch
- \${extract}/jQuery\_mobile\_workshop/labs/forms/forms.html

Lists.

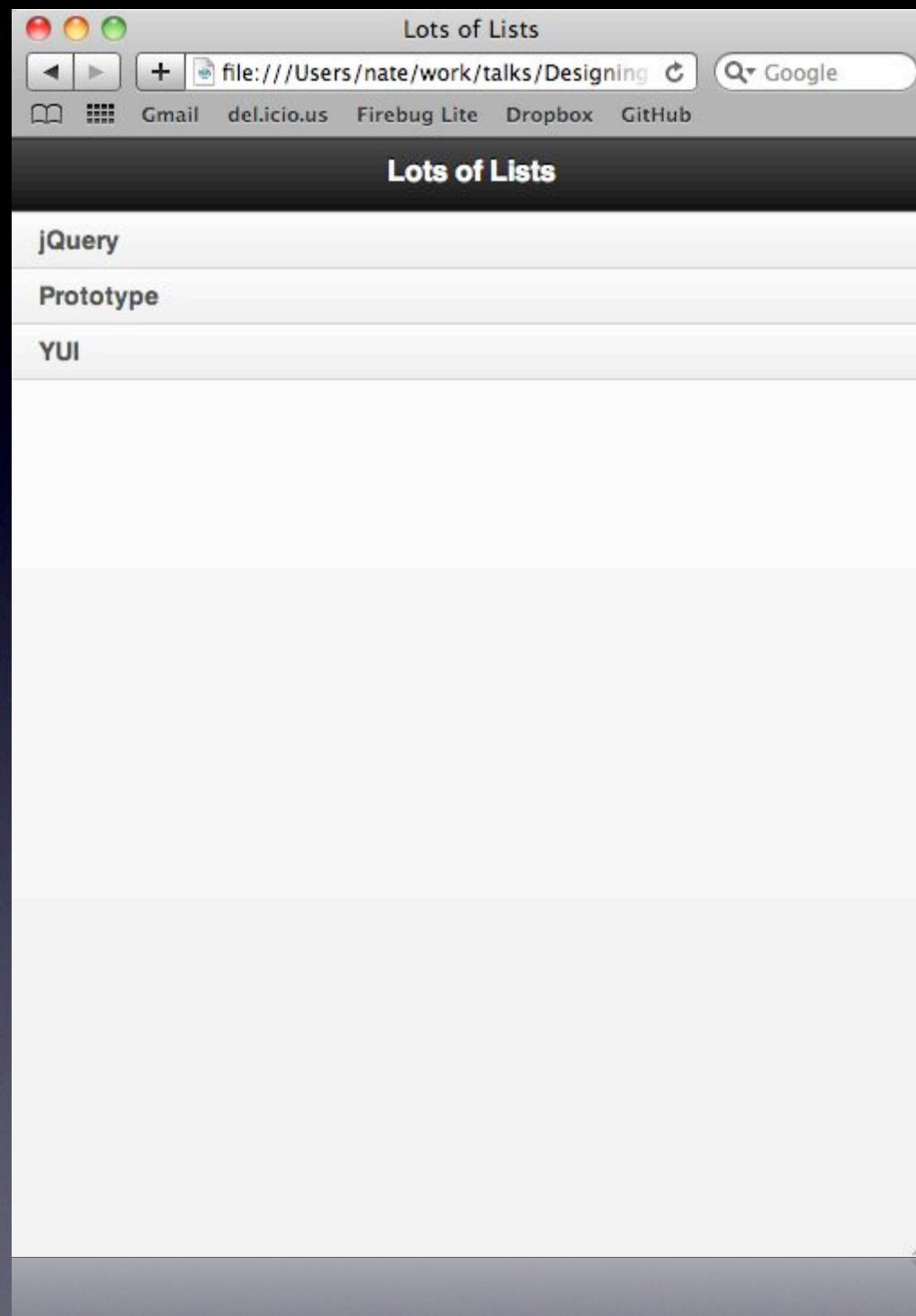
# Tables of data.

Very common.

Display, navigation, etc.



```
<div data-role="content">
  <ul data-role="listview">
    <li><a href="jquery.html">jQuery</a></li>
    <li><a href="prototype.html">Prototype</a></li>
    <li><a href="yui.html">YUI</a></li>
  </ul>
</div>
```



```
<div data-role="content">
  <ul data-role="listview">
    <li>jQuery</li>
    <li>Prototype</li>
    <li>YUI</li>
  </ul>
</div>
```

Name	Date Modified
mobileLists.html	Today, 7:32 PM
mobileListsCounts.html	Today, 7:57 PM
mobileListsDividers.html	Today, 7:48 PM
jquery	
mobile_list_divider.jpg	Today, 8:09 PM
mobile_list_count.jpg	Today, 8:08 PM

Lots of Lists

file:///Users/nate/work/talks/Designing Google

B Gmail del.icio.us Firebug Lite Dropbox GitHub

**Lots of Lists**

A

Accura >

Audi >

B

BMW >

C

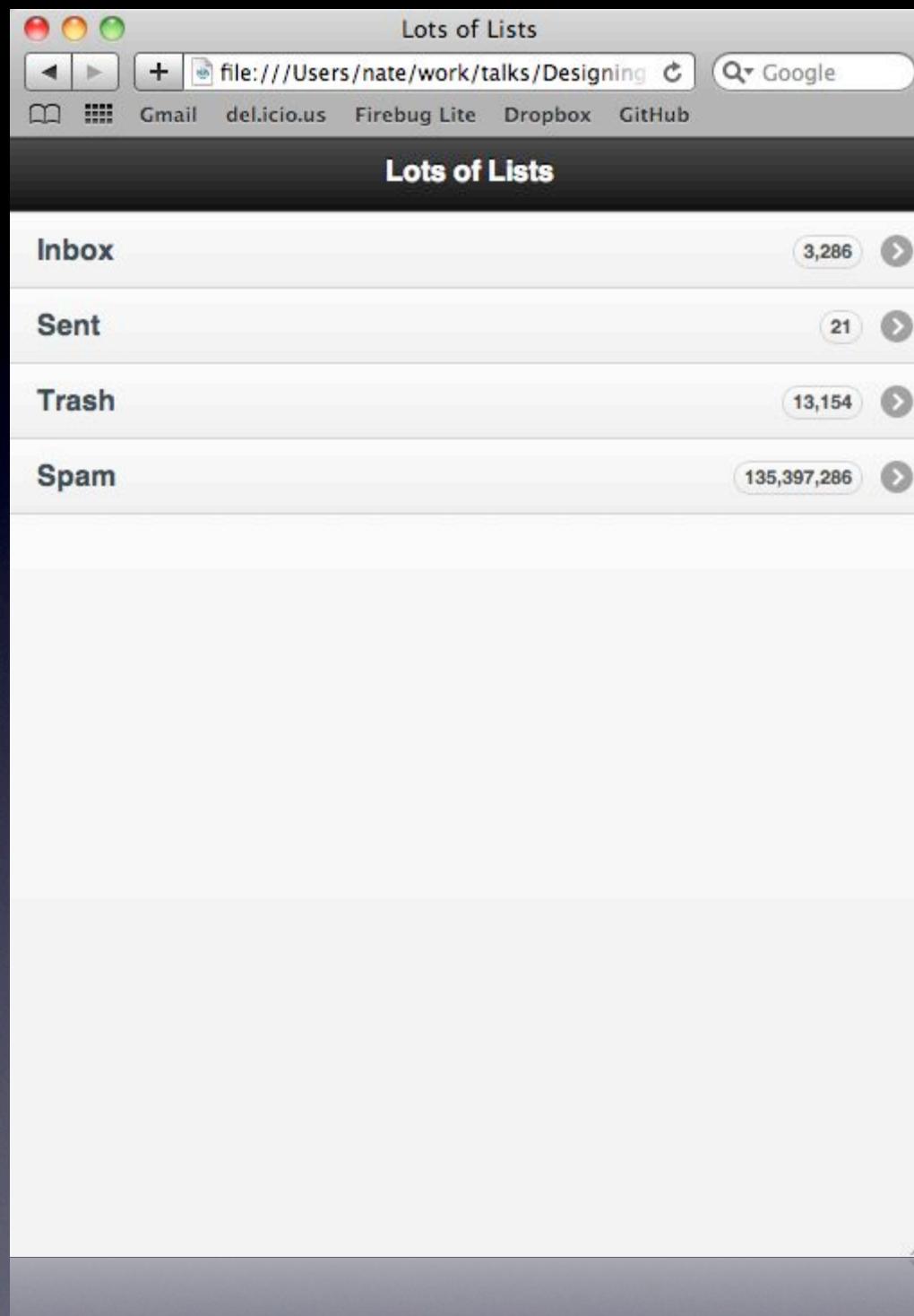
Cadillac >

Chrysler >

The screenshot shows a web browser window with a dark theme. The title bar reads "Lots of Lists". The address bar shows a local file path: "file:///Users/nate/work/talks/Designing". Below the address bar is a menu bar with links: B, Gmail, del.icio.us, Firebug Lite, Dropbox, and GitHub. The main content area is titled "Lots of Lists". It contains three sections: "A" which lists "Accura" and "Audi" each followed by a right-pointing arrow; "B" which lists "BMW" followed by a right-pointing arrow; and "C" which lists "Cadillac" and "Chrysler" each followed by a right-pointing arrow.

```
<div data-role="content">
  <ul data-role="listview">
    <li data-role="list-divider">A</li>
    <li><a href="accura.html">Accura</a></li>
    <li><a href="audi.html">Audi</a></li>
    <li data-role="list-divider">B</li>
    <li><a href="bmw.html">BMW</a></li>
    <li data-role="list-divider">C</li>
    <li><a href="cadillac.html">Cadillac</a></li>
    <li><a href="chrysler.html">Chrysler</a></li>
  </ul>
</div>
```

Name	Date Modified
mobileLists.html	Today, 7:32 PM
mobileListsCounts.html	Today, 7:57 PM
mobileListsDividers.html	Today, 7:48 PM
jquery	
mobileListCount.jpg	Today, 7:57 PM
mobileDividerList.jpg	Today, 7:49 PM
mobileListRead.jpg	Today, 7:36 PM
mobileList.jpg	Today, 7:33 PM
mobile_dialog_2.jpg	Today, 7:02 PM
mobile_form.mov	Today, 5:11 PM
mobile_form_select.jpg	Today, 5:08 PM
mobile_form_slider.jpg	Today, 5:07 PM
mobile_form_text.indd	Today, 5:07 PM



```
<div data-role="content">    sler</a></li>
    <ul data-role="listview">
        <li><a href="inbox.html">Inbox</a><span class="ui-li-count">3,286</span></li>
        <li><a href="sent.html">Sent</a><span class="ui-li-count">21</span></li>
        <li><a href="trash.html">Trash</a><span class="ui-li-count">13,154</span></li>
        <li><a href="spam.html">Spam</a><span class="ui-li-count">135,397,286</span></li>
    </ul>
</div>
```

Lab time!

# Lists

- Create a page with a standard list
- Create a page with a read only list
- Add list dividers
- Add “counts”
- Convert a list to a numbered list
- \${extract}/jQuery\_mobile\_workshop/labs/lists/\*.html

Custom events.

Adds a set of custom events.

Bind with `live()` or `bind()`.

# Touch events.

- tap
- taphold
- swipe
- swipeleft
- swiperight

# Orientation/Scrolling.

- orientationchange
- scrollstart
- scrollstop

# Page show and hide.

- `pagebeforeshow`
- `pagebeforehide`
- `pageshow`
- `pagehide`

Page transitions involve  
4 page events...

Two for each page.

Page events reference to  
next or previous page.

Page initialization events.

Markup “converted” to  
custom controls.

You can add custom  
code before/after init.

You can also add your own init code.

And you can stop the  
auto init if you want.

Page events only fire  
ONCE per page.

Not the same as hide/show.

# Page initialization.

- pagebeforecreate
- pagecreate

To prevent auto init...

...bind to pagebeforecreate,  
return false.

One animation event...

animationComplete

# Methods.

`$.mobile` exposes several methods/properties.

`$mobile.changePage`

# Arguments.

to  
transition (string)  
reverse (boolean)  
changeHash(boolean)

# to

- string - url
- jQuery object
- array - [from, to]
- object - form data

```
function transition() {
    $.mobile.changePage("mobileLists.html", "slideup");
}
```

`$.mobile.pageLoading`

Show/hide page  
loading message.

`$mobile.path`  
`$mobile.base`

`$.mobile.silentScroll`

Scrolls without firing  
scroll events.

`$.mobile.activePage`

A reference to the  
page in view.

# Layout helpers.

CSS.

Not too surprising ;)

Updated as needed.

You can reference  
the class.

.portrait  
.landscape

# Width breakpoints.

320, 480, 768, 1024.

.min-width-480px

jQuery Mobile plugins  
leverage extensively.

Want your own  
width breakpoint?

`$.mobile.addResolutionBreakpoints`

Support for  
media queries.

\$.mobile.media

What about tablets?

# 960 Grid.

<http://jeromeetienne.github.com/jquery-mobile-960/>

# Layout grids.

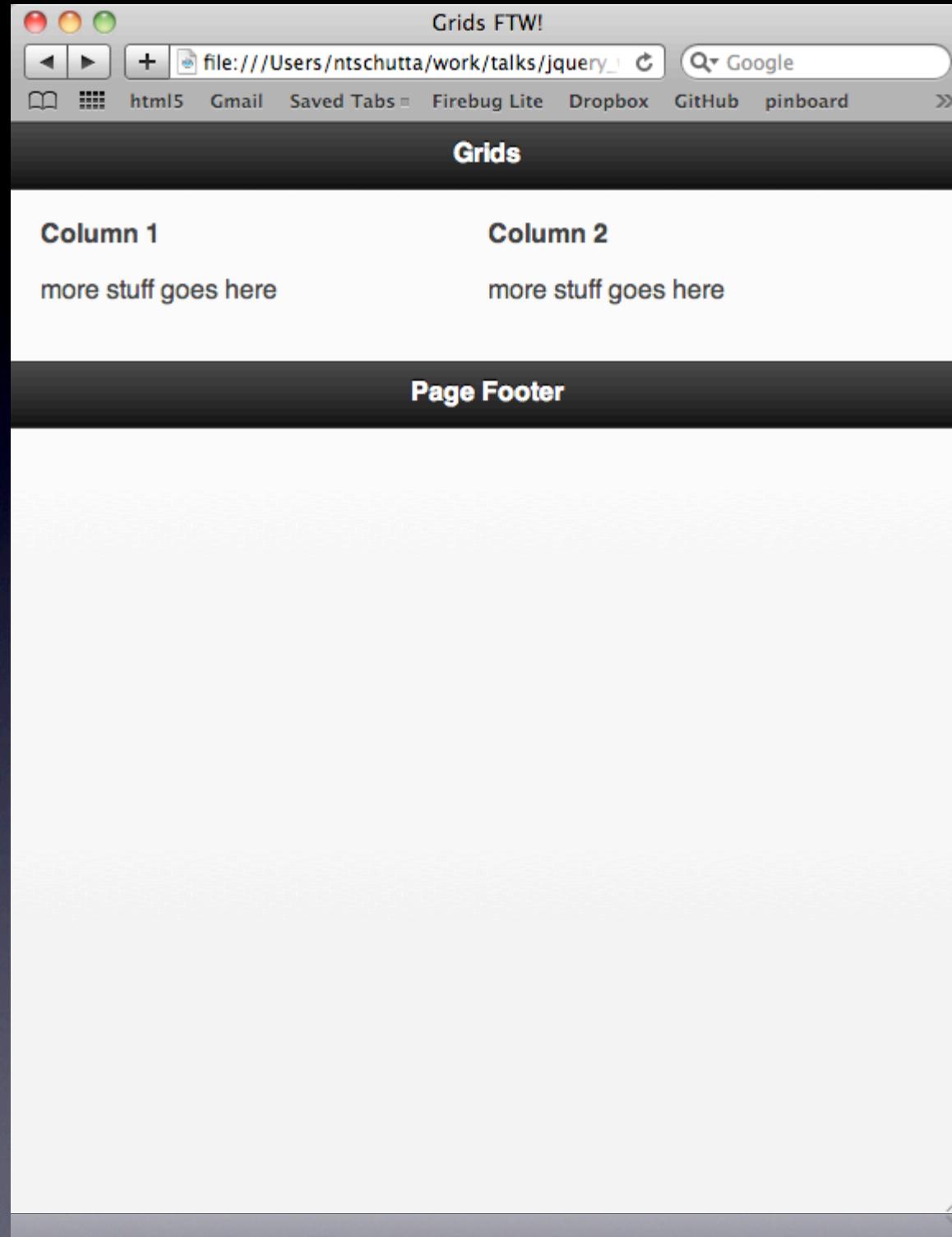
Includes various grids.

Be aware of screen sizes...

Two presets...

2 column: ui-grid-a  
3 column: ui-grid-b

Grids are 100% width,  
invisible, no margins/padding.



```
<div data-role="page">
  <div data-role="header">
    <h1>Grids</h1>
  </div>
  <div data-role="content">
    <div class="ui-grid-a">
      <div class="ui-block-a"><strong>Column 1</strong><p>more stuff goes here</p></div>
      <div class="ui-block-b"><strong>Column 2</strong><p>more stuff goes here</p></div>
    </div>
  </div>
  <div data-role="footer">
    <h4>Page Footer</h4>
  </div>
</div>
```

Can be combined  
with themes.

Works with any container.

Also has support for  
3, 4 an 5 column grids.

You can even have  
multi row grids.

Collapsible content.

Wait for it...

**data-role="collapsible"**

Add any header element.

Form Elements

file:///Users/ntschutta/work/talks/jquery\_+ Google

html5 Gmail Saved Tabs Firebug Lite Dropbox GitHub pinboard

Back Collapsible Form Elements

**(-)** Collapse This Section

Text Input:

Password Input:

**(-)** Collapse This Section

Input slider: 0

Flip toggle: Off

**(+)** Collapsed On Load

The screenshot shows a web browser window titled 'Form Elements' with a URL bar containing 'file:///Users/ntschutta/work/talks/jquery\_+' and a search bar for 'Google'. The bookmarks bar includes links for html5, Gmail, Saved Tabs, Firebug Lite, Dropbox, GitHub, and pinboard. A 'Back' button is visible on the left. The main content area has a dark header bar with the title 'Collapsible Form Elements'. Below it are three sections, each enclosed in a rounded rectangle with a minus sign icon on the left. The first section contains 'Text Input:' and 'Password Input:' fields. The second section contains an 'Input slider:' with a value of '0' and a 'Flip toggle:' switch set to 'Off'. The third section is collapsed, indicated by a plus sign icon on the left. The entire page has a light gray background.

```
<div data-role="collapsible">
  <h3>Collapse This Section</h3>
  <div data-role="fieldcontain">
    <label for="slider">Input slider:</label>
    <input type="range" name="slider" id="slider" value="0" min="0" max="100" />
    <label for="slider2">Flip toggle:</label>
    <select name="slider2" id="slider2" data-role="slider">
      <option value="off">Off</option>
      <option value="on">On</option>
    </select>
  </div>
</div>
<div data-role="collapsible" data-collapsed="true">
  <h3>Collapsed On Load</h3>
  <div data-role="fieldcontain">
    <label for="select-choice-1" class="select">Favorite Flavor:</label>
    <select name="select-choice-1" id="select-choice-1">
      <option value="Vanilla">Vanilla</option>
      <option value="Chocolate">Chocolate</option>
      <option value="Neapolitan">Neapolitan</option>
      <option value="Coffee">Coffee</option>
    </select>
    <fieldset data-role="controlgroup">
      <legend>Favorite Flavors:</legend>
      <input type="checkbox" name="checkbox-1" id="checkbox-1" class="custom" />
      <label for="checkbox-1">Vanilla</label>
      <input type="checkbox" name="checkbox-2" id="checkbox-2" class="custom" />
      <label for="checkbox-2">Chocolate</label>
      <input type="checkbox" name="checkbox-3" id="checkbox-3" class="custom" />
      <label for="checkbox-3">Neapolitan</label>
      <input type="checkbox" name="checkbox-4" id="checkbox-4" class="custom" />
      <label for="checkbox-4">Coffee</label>
    </fieldset>
  </div>
</div>
```

Lab time!

# Collapsible Sets

- Add collapsible sets to the form
- Have one (or more) sections open on load
- \${extract}/jQuery\_mobile\_workshop/labs/collapsible/collapsible.html

Can also create  
an accordion.

# collapsible-set

# Themes.

# Strength of jQuery.

Unified visual design.

Uses CSS3 properties.

No images for rounded  
corners, gradients, etc.

Themes use color swatches.

Can mix and match.

Themes are open ended,  
allows for variety.

CSS3 gradients for  
background.

Icon set.

Separation of color  
and texture...

Default theme 5  
swatches: a, b, c, d, e.

ThemeRoller For  
jQuery Mobile.

Beta...

[Download Theme](#)[Help](#) [Import](#) [Share](#)

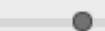
Inspector:

[On](#) [Off](#)

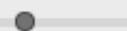
Drag a color onto an element below or in the panel or pick one from the

[Adobe Kuler swatches](#)

LIGHTNESS



SATURATION



A



B



## Welcome to ThemeRoller for jQuery Mobile

You can create up to 26 theme "swatches" lettered from A-Z, each with a unique color scheme that can be mixed and matched for unlimited possibilities.

To start, either drag a QuickSwatch color onto an element in the preview or use the inspector panel on the left to get crafty. We recommend building themes with at least 3 swatches (A-C).

[Get Rolling](#)

Option 1

Text Input

0

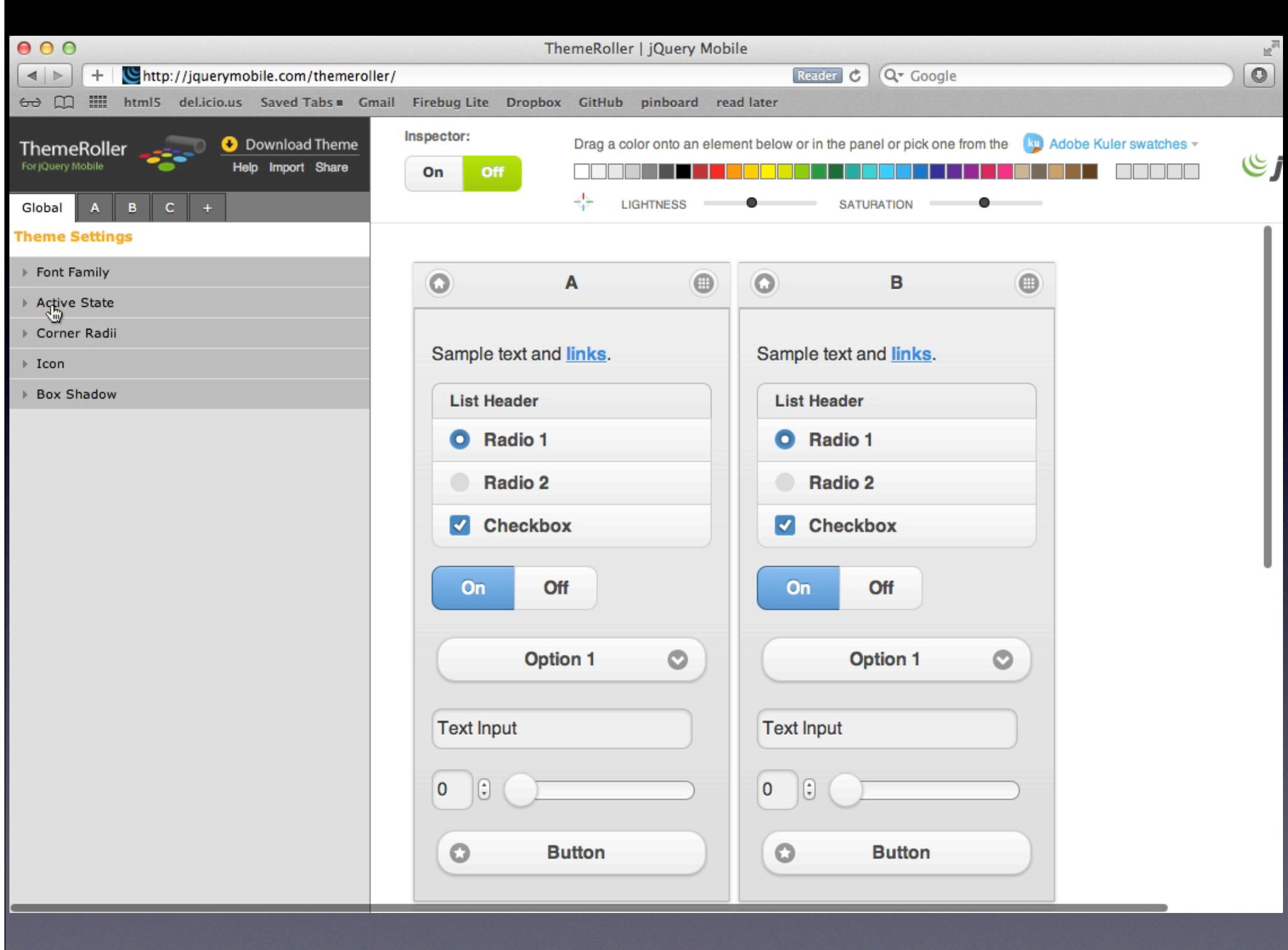


Option 1

Text Input

0





Lab time!

# Themes

- Wifi willing...
- <http://jquerymobile.com/themeroller/>
- Using jQuery ThemeRoller, create your own theme
- Try your theme out on various labs
- \${extract}/jQuery\_mobile\_workshop/labs/collapsible/collapsible.html

Default header: a.  
Default body: c.

Swatches default styles  
for buttons et al.

Buttons in a bar  
automatically match.

Changes cascade down.

“Active” state same  
across a theme.

Can't override.

Consistent user feedback.

# Native or HTML5?

Pros...and cons.

# “Web” vs. “Native”.

[http://www.tbray.org/ongoing/When/  
201x/2011/06/14/Native-vs-Web](http://www.tbray.org/ongoing/When/201x/2011/06/14/Native-vs-Web)

Many native apps could  
be written in HTML5.

Should they is the  
interesting question.

# Uncanny valley...

[http://en.wikipedia.org/wiki/Uncanny\\_valley](http://en.wikipedia.org/wiki/Uncanny_valley)



<http://www.flickr.com/photos/usarak/5431814673/>

By U.S. Army Alaska





プリーキューツー

ATR Intelligent Robo

ロボットはどちらがいいのか  
見かけに魅力的  
これらの疑問を  
開発されたのが

How should a robot be  
Why is a human attractive  
appearances? Repliee  
developed for studying

近い将来Repliee  
ンドロイドが社会に  
活躍する日が来  
しりません。

In the near future, and  
may work in our society.

インストラ  
介護・保育  
Instruction

# Applies to interfaces too...

<http://billhiggins.us/blog/2007/05/17/the-uncanny-valley-of-user-interface-design/>

# CrossPlatformMobile.

<http://martinfowler.com/bliki/CrossPlatformMobile.html>

# Pretenders: Why mobile Web apps should stop trying to act like native apps.

<http://cvil.ly/2011/06/19/pretenders-why-mobile-web-apps-should-stop-trying-to-act-like-native-apps/>

# Why Mobile Web Apps Should Stop Trying to Act Like Native Apps.

<http://daringfireball.net/linked/2011/06/20/pretenders>

Let's try.

# I love TriplIt!

<http://www.tripit.com>

Incredibly useful for  
anyone that travels.

Great website, also has  
a mobile app.

AT&T 3G 3:07 PM

All Trips Itinerary People Share

All clear. Tript Pro is monitoring this trip.

**Fort Lauderdale, FL, December...**  
Nov 30, 2010 - Dec 4, 2010

4 Who's Close: Craig Walls, Matthew J McCulloug...

**Wed, Dec 1**

10:20 AM Minneapolis/St. Paul... >  
CST Delta Air Lines 1403

3:03 PM Map of Fort Lauderdale... >  
EST Map of Fort Lauderdale, FL

**Sun, Dec 5**

1:20 PM Fort Lauderdale to... >  
EST Delta Air Lines 1946

Trips Points Network Refresh

Trip Planner Mobile

file:///Users/nate/Desktop/jquery\_works

Google

Gmail del.icio.us Firebug Lite Dropbox GitHub

Back Your Trip to Amsterdam Info

7 days, 12 Nov -> 19 Nov

Friday November 12

MSP -> AMS >

Directions to Holiday Inn >

Map of Amsterdam >

Transportation >

Sunday November 14

Venue >

Tuesday November 16

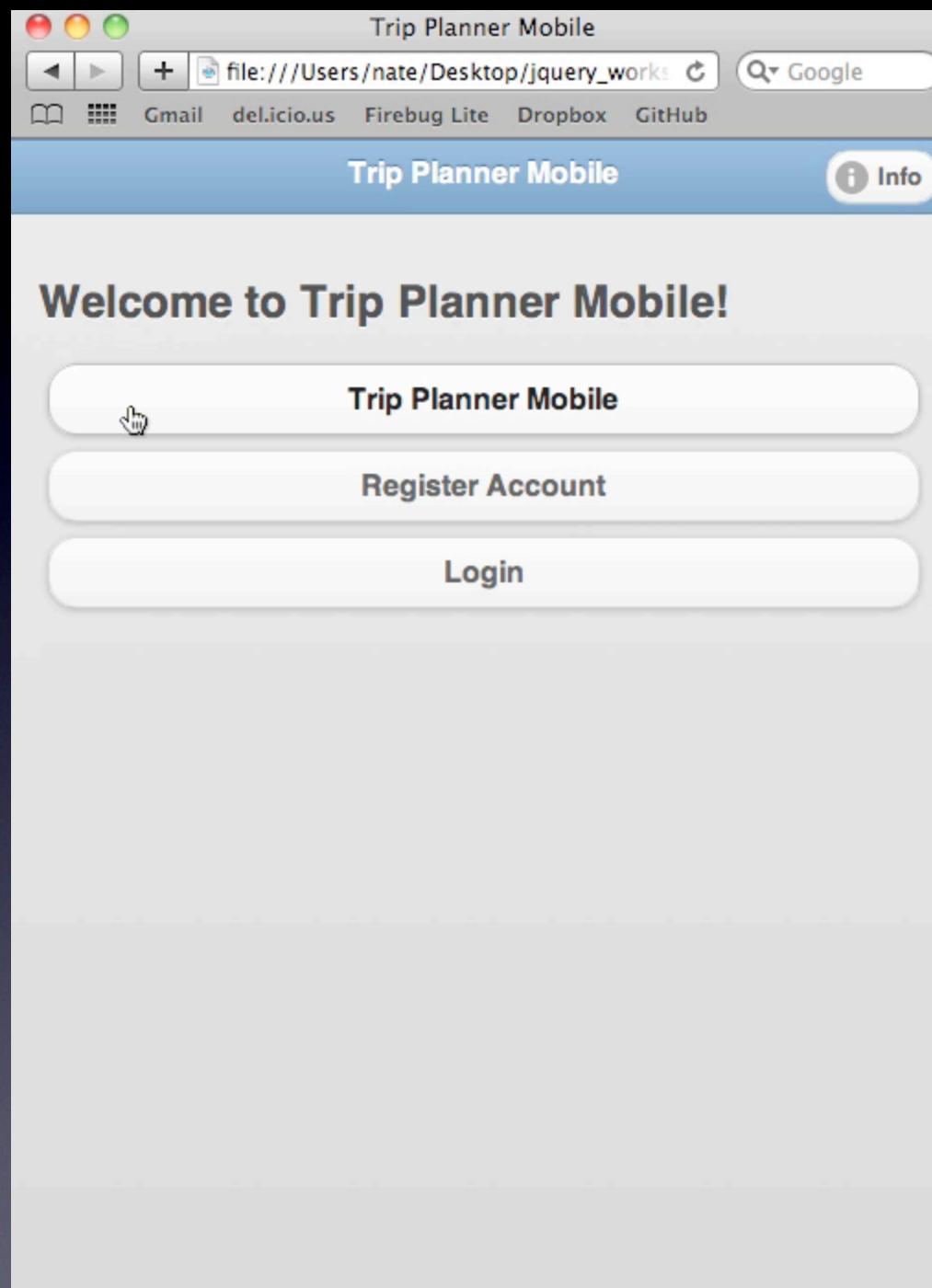
Transportation >

Speaker's dinner >

Friday November 19

AMS -> MPS >

Trips Points Network Refresh



Lab time!

# Trip Planner

- Using what we've learned, create a jQuery Mobile based “trip planner”
- Splash page
- Trip list
- Trip details
- \${extract}/jQuery\_mobile\_workshop/labs/trip\_planner/trip\_planner.html

```
<div data-role="page" id="trips" data-theme="b">
    <div data-role="header" data-theme="b">
        <h1>Trip Planner Mobile</h1>
        <a href="info.html" data-icon="info" data-theme="c" class="ui-btn-right">Info</a>
    </div>
    <div data-role="content">
        <h2>Welcome to Trip Planner Mobile!</h2>
        <a href="#trips" data-transition="pop" data-role="button" data-theme="c">Trip Planner Mobile</a>
        <a href="register.html" data-role="button" data-theme="c">Register Account</a>
        <a href="login.html" data-role="button" data-theme="c">Login</a>
    </div>
</div>

<div data-role="page" id="trips" data-theme="b">
    <div data-role="header" data-theme="b" data-nobackbtn="true">
        <h1>Your Trips</h1>
        <a href="info.html" data-icon="info" data-theme="c" class="ui-btn-right">Info</a>
    </div>
    <div data-role="content">
        <ul data-role="listview">
            <li data-role="list-divider">Your Trips</li>
            <li><a href="#trip1">Amsterdam, Netherlands</a><span class="ui-li-count">7 Days</span></li>
            <li><a href="#trip2">Fort Lauderdale, FL</a><span class="ui-li-count">3 Days</span></li>
            <li data-role="list-divider">Shared Trips</li>
            <li>No Shared Trips</li>
        </ul>
    </div>
    <div data-role="footer" data-theme="b" data-position="fixed">
        <a href="trips.html" data-role="button" data-icon="info">Trips</a>
        <a href="points.html" data-role="button" data-icon="star">Points</a>
        <a href="network.html" data-role="button" data-icon="gear">Network</a>
        <a href="refresh.html" data-role="button" data-icon="refresh">Refresh</a>
    </div>
</div>
```

```
<div data-role="page" id="trip1" data-theme="b">
  <div data-role="header" data-theme="b">
    <h1>Your Trip to Amsterdam</h1>
    <h1>7 days, 12 Nov -> 19 Nov</h1>
    <a href="info.html" data-icon="info" data-theme="c" class="ui-btn-right">Info</a>
  </div>
  <div data-role="content">
    <ul data-role="listview">
      <li data-role="list-divider">Friday November 12</li>
      <li><a href="flight1.html">MSP -> AMS</a></li>
      <li><a href="directions.html">Directions to Holiday Inn</a></li>
      <li><a href="map.html">Map of Amsterdam</a></li>
      <li><a href="transport.html">Transportation</a></li>
      <li data-role="list-divider">Sunday November 14</li>
      <li><a href="venue.html">Venue</a></li>
      <li data-role="list-divider">Tuesday November 16</li>
      <li><a href="transport2.html">Transportation</a></li>
      <li><a href="dinner.html">Speaker's dinner</a></li>
      <li data-role="list-divider">Friday November 19</li>
      <li><a href="flight2.html">AMS -> MPS</a></li>
    </ul>
  </div>
  <div data-role="footer" data-theme="b" data-position="fixed">
    <a href="trips.html" data-role="button" data-icon="info">Trips</a>
    <a href="points.html" data-role="button" data-icon="star">Points</a>
    <a href="network.html" data-role="button" data-icon="gear">Network</a>
    <a href="refresh.html" data-role="button" data-icon="refresh">Refresh</a>
  </div>
</div>
```

Did I mention jQuery  
Mobile just went 1.0?

Evolving rapidly.

Expect evolution.

# Questions?

# Thanks!

Please complete your surveys.