



# Lab 2: jQuery Mobile

# Lab structure

- jQuery introduction
- jQuery Mobile
  - Pages
  - List Views
  - Buttons
  - Toolbars
  - Form Elements
  - Content Formatting

# jQuery introduction

- jQuery is a cross-browser JavaScript Library
  - Simplifies DOM traversing and modification
  - Event handling
  - Animation
  - Ajax interaction
  - Extendable with plugins

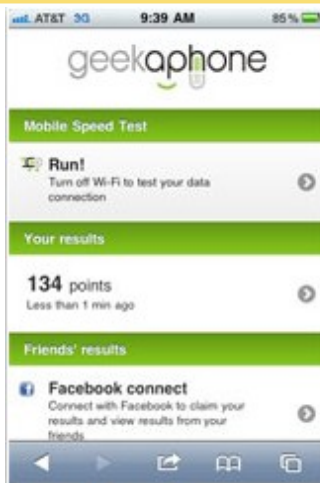
# jQuery examples

```
1 // Select all paragraphs
2 jQuery('p');
3 // or use the $(dollar) sign to make it shorter
4 $('p');
5
6 // Add class blue to all spans within content id
7 $('#content .span').addClass('blue');
8
9 // Add click-handler for current and future anchors
10 $( 'a' ).on( 'click', function( event ) {
11     console.log( 'got event', event );
12     event.preventDefault();
13     event.stopPropagation();
14 });
15
16 // Slowly enlarge h1 on mouse enter and restore on mouse leave
17 $( 'h1' ).on( 'mouseenter mouseleave', function( event ) {
18     var fs = parseInt( $( this ).css( "font-size" ), 10 );
19     if ( fs > 30 ) {
20         $( this ).animate( { fontSize: "30px" }, "slow" );
21     } else {
22         $( this ).animate( { fontSize: "50px" }, "slow" );
23     }
24 });
25
26 // Remove all handlers
27 $( 'h1' ).off();
```

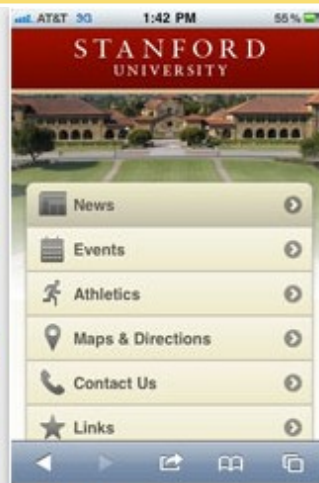
# jQuery Mobile

- touch-optimized
- progressive enhancement
- themeable design
- cross-platform & cross-browser
  - supports all major platforms
  - supports all major browsers
- hybrid app friendly

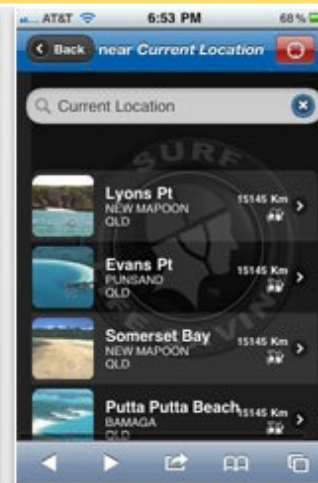
# jQuery Mobile examples



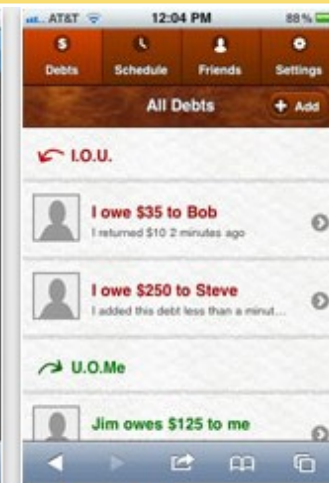
Geekaphone



Stanford



Beachsafe Mobile



I.O.U. Mate



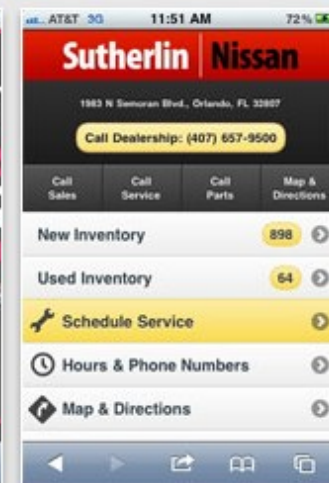
ChoreQuest



ihaveu



Audi A7 Bold Design



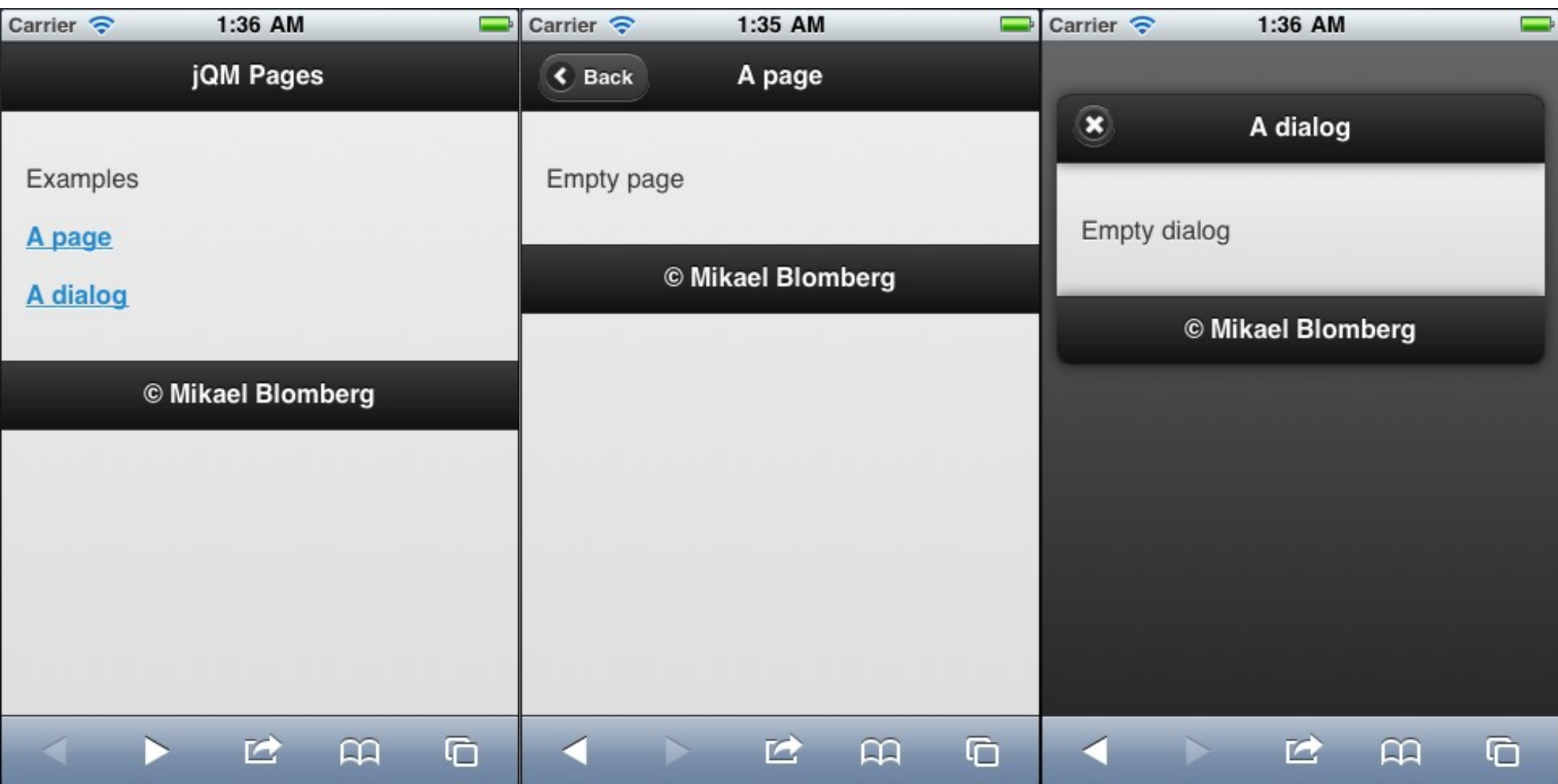
Sutherlin Nissan



# jQuery Mobile : Pages html page

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>jQuery Mobile Examples</title>
5     <meta name="viewport" content="width=device-width, initial-scale=1">
6     <link rel="stylesheet" href="http://code.jquery.com/mobile/1.0.1/jquery.mobile-1.0.1.min.css" />
7     <script src="http://code.jquery.com/jquery-1.7.1.js"></script>
8     <script src="scripts.js"></script>
9     <script src="http://code.jquery.com/mobile/1.0.1/jquery.mobile-1.0.1.min.js"></script>
10  </head>
11  <body>
12    <div id="main">
13      <header>
14        <h1>Examples</h1>
15      </header>
16      <div class="content">
17        <p class="none">
18          No examples
19        </p>
20      </div>
21      <footer>
22        <h6>&copy; Mikael Blomberg</h6>
23      </footer>
24    </div>
25  </body>
26 </html>
```

# jQuery Mobile : Pages goal





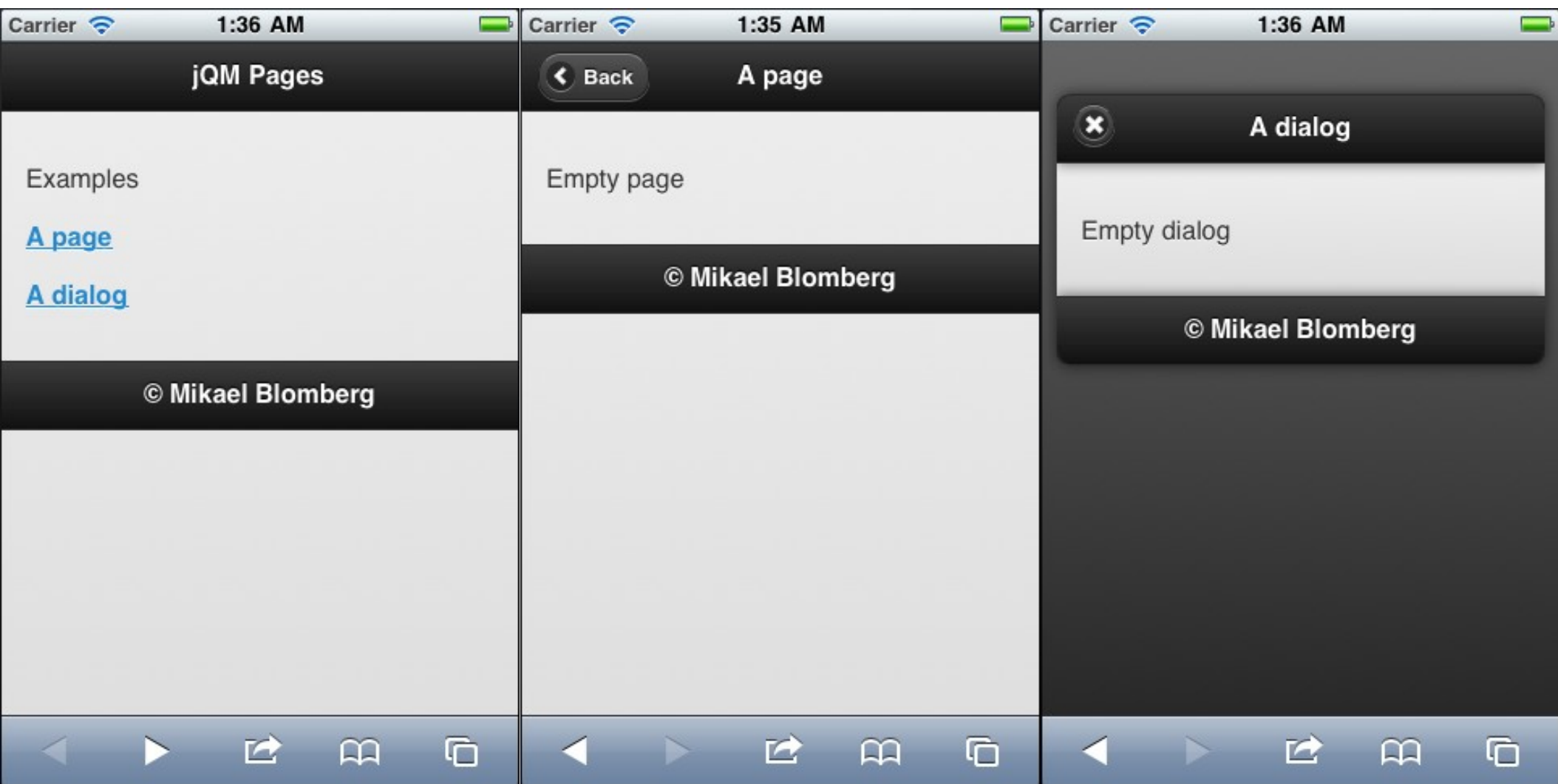
# jQuery Mobile : Pages

- A view is called “Page”
- jQuery Mobile uses data attributes
- Each page can have 3 data-roles
  - Header
  - Content
  - Footer
- A multi-page app is linked using #pageld

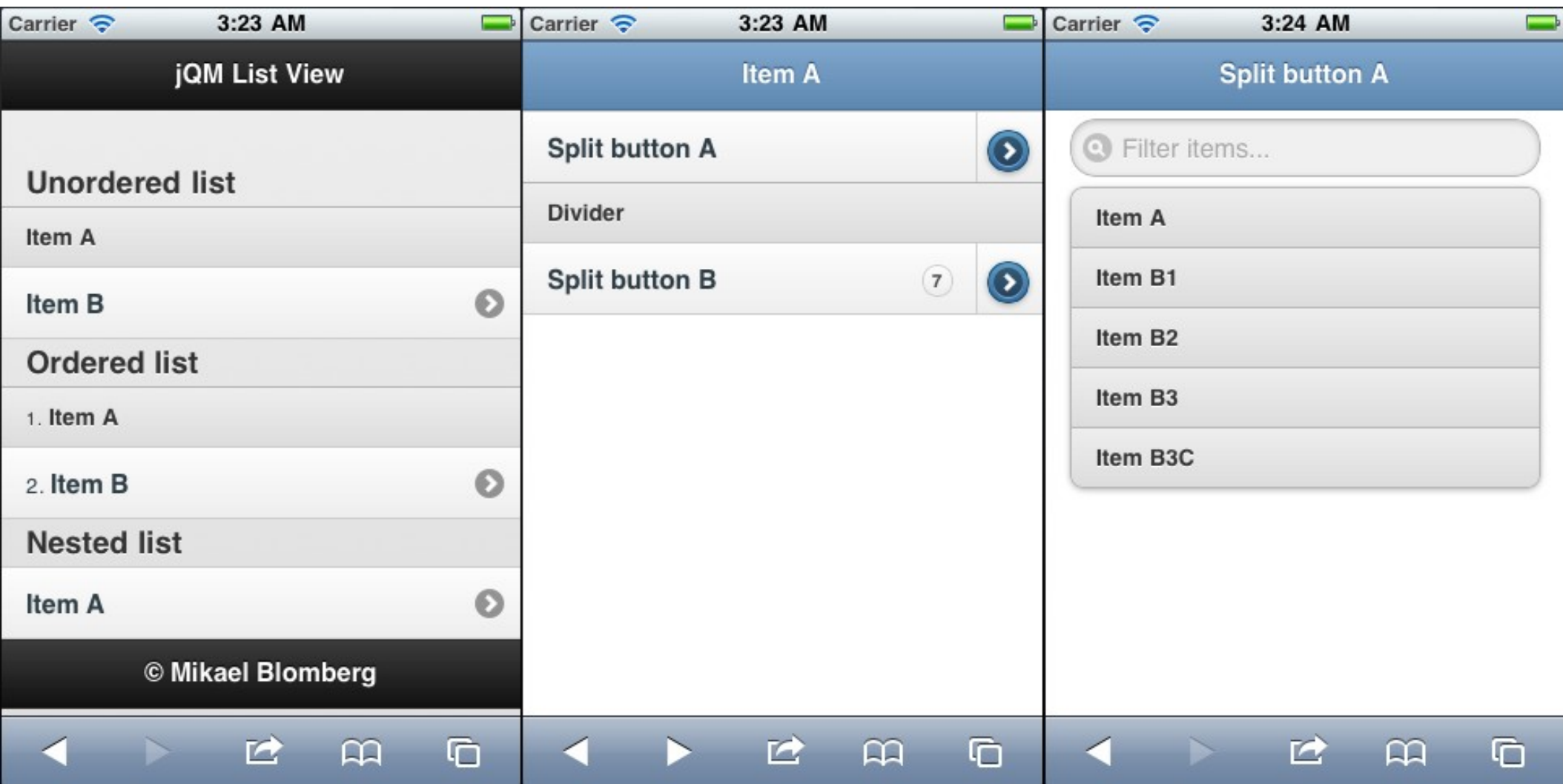
# jQuery Mobile : Pages continued

- Automatic page transitions
  - `data-transition="fade"` by default
  - fade, pop, flip, turn, flow, slide, etc.
- Linked pages are automatically hijaxed
  - `data-rel="external"` or `data-ajax="false"`
- Back-button support
  - `data-rel="back"` or `data-add-back-btn="true"`
- A page can be presented as a Dialog
  - `data-rel="dialog"`

# jQuery Mobile : Pages demo



# jQuery Mobile : List Views goal



# jQuery Mobile : List Views

- There are 3 types of List Views
  - Unordered, ordered and nested lists
- List items with anchors are automatically enhanced
  - A single anchor becomes a right arrow icon
  - Two anchors becomes a split button
- Nested lists are lists inside list item
  - `<ul><li>Labs<ul><li>Lab 1...`



# jQuery Mobile : List Views continued

- List items can be separated using a divider
  - `data-role="divider"`
- Search filters can be added using
  - `data-filter="true"`
- List views can be added to forms using
  - `data-inset="true"`
- Count bubbles can be added using
  - `class="ul-li-count"`

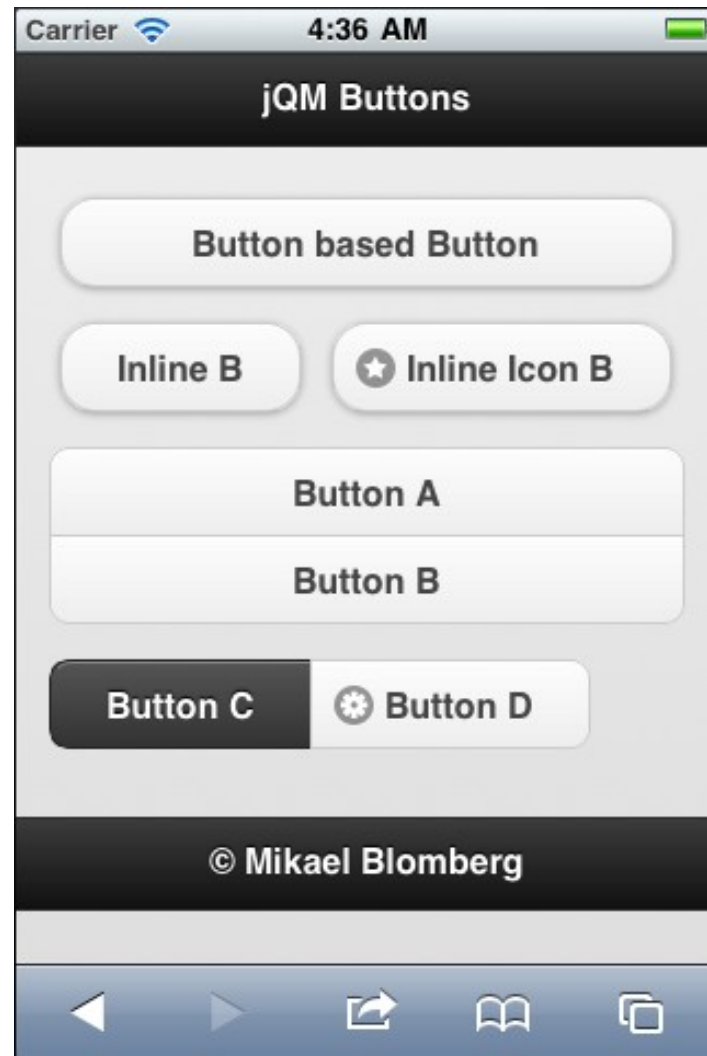
# jQuery Mobile : List Views demo

The image displays three side-by-side screenshots of a jQuery Mobile application interface, demonstrating different list view styles. Each screenshot has a status bar at the top showing 'Carrier', signal strength, and time.

- Left Screenshot (3:23 AM):** Titled 'jQM List View'. It shows a list with sections: 'Unordered list' (containing 'Item A' and 'Item B'), 'Ordered list' (containing '1. Item A' and '2. Item B'), and 'Nested list' (containing 'Item A'). A footer bar shows '© Mikael Blomberg'.
- Middle Screenshot (3:23 AM):** Titled 'Item A'. It shows a detailed view of a list item with a 'Split button A', a 'Divider', and a 'Split button B' with a count of '7'.
- Right Screenshot (3:24 AM):** Titled 'Split button A'. It shows a search bar 'Filter items...' and a list of items: 'Item A', 'Item B1', 'Item B2', 'Item B3', and 'Item B3C'.

Each screenshot includes a bottom navigation bar with icons for back, forward, search, and other mobile-specific functions.

# jQuery Mobile : Buttons goal



# jQuery Mobile : Buttons

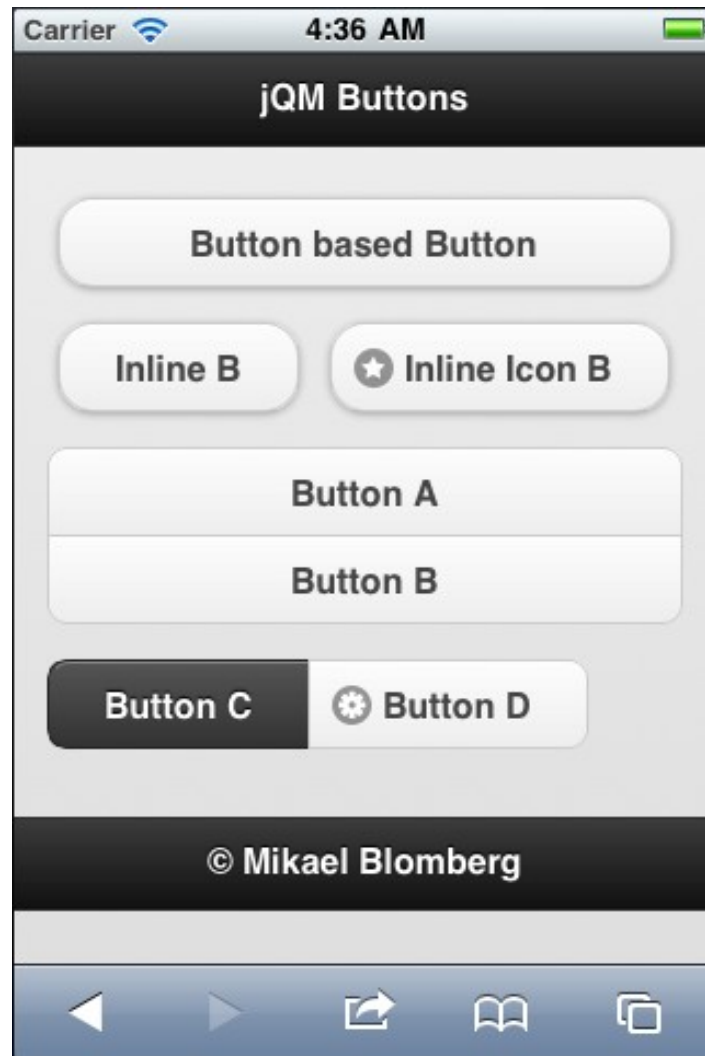
- jQuery Mobile enhanced buttons to be touch-friendly
- Typically there are two types of buttons
  - link buttons for navigation
  - form-based buttons for form submissions
- Automatic input and button enhancement
- Any element can be used as a button using
  - `data-role="button"`
- Buttons can be inline using
  - `data-inline="true"`

# jQuery Mobile : Buttons continued

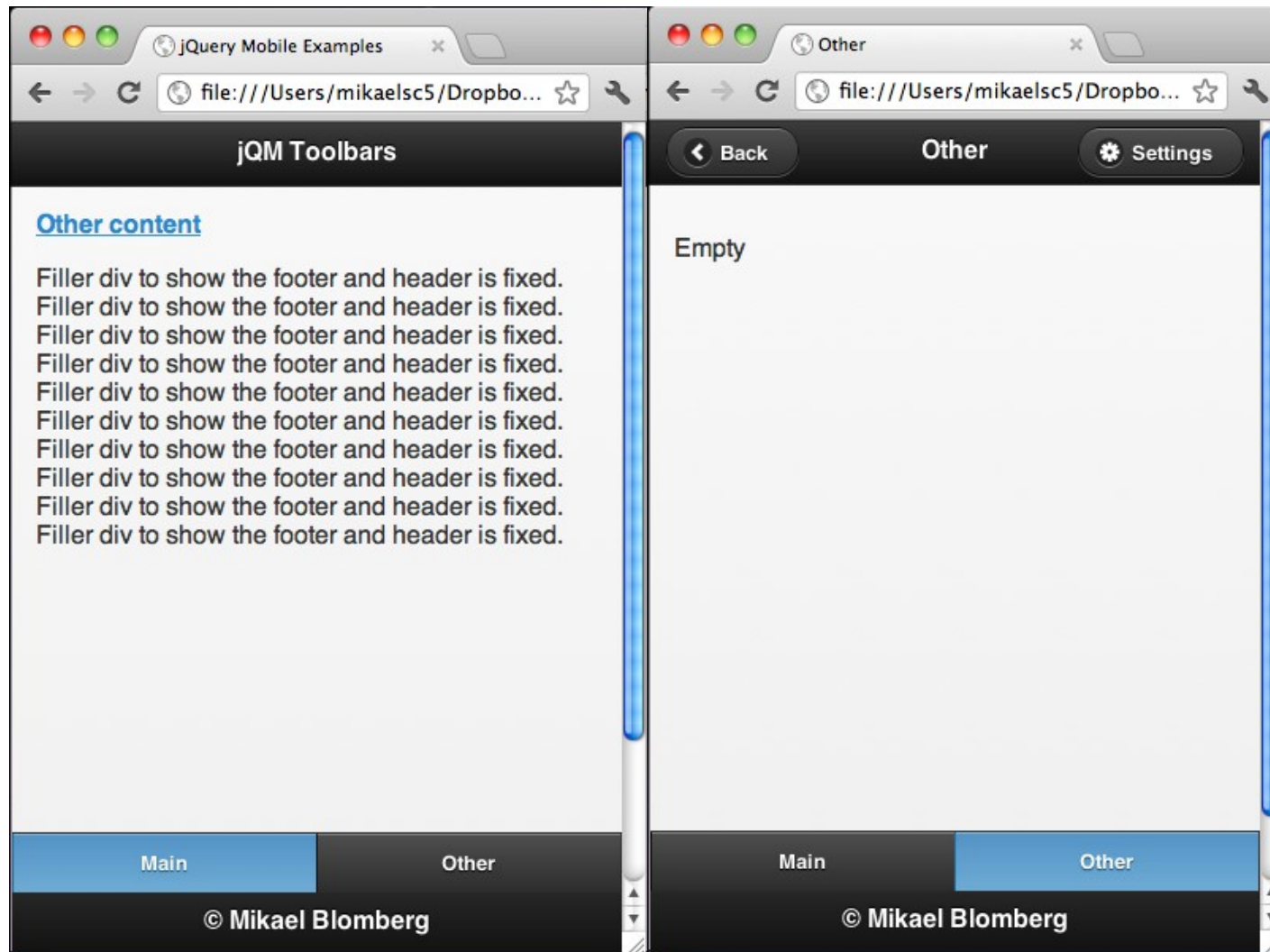
- Button icons can be set using
  - data-icon="star" ([available icons](#))
- Buttons can be grouped and aligned using
  - data-role="controlgroup"
  - data-type="horizontal" (vertical by default)
- Buttons can be themed using
  - data-theme="a"
  - other alternatives are b,c,d, and e



# jQuery Mobile : Buttons demo



# jQuery Mobile : Toolbars goal



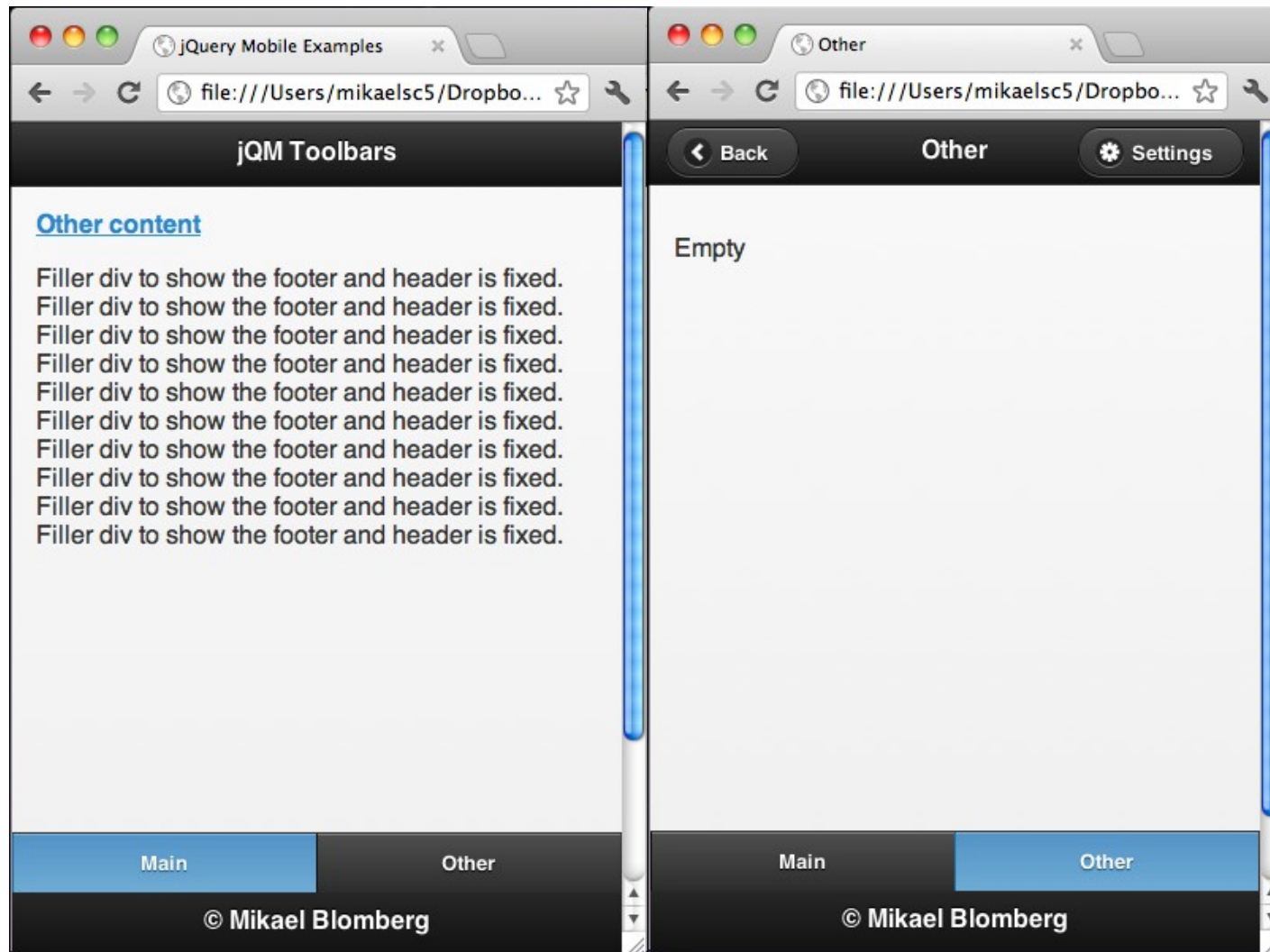
# jQuery Mobile : Toolbars

- There are three types of toolbars
  - Header, footer, and navbar
- Automatically positions the header to the top of the page and footer to the bottom of the page
- Header and footer toolbars can be fixed using
  - `data-position="fixed"`
- Persisting toolbar in transitions by using
  - `data-id="exampleId"` (same id in all)
  - `class="ui-btn-active ui-state-persist"`

# jQuery Mobile : Toolbars continued

- Navbars are unordered anchor lists inside containers
  - `data-role="navbar"`
  - `class="ui-btn-active"`
- Navbar button widths are automatically adjusted
  - up to 5 buttons are on a single row
  - 6+ buttons are on multiple rows (two per row)
- Button icons are positioned above the text
  - `data-iconpos="top"` by default
  - alternatives are “bottom”, “left”, and “right”

# jQuery Mobile : Toolbars demo





# jQuery Mobile : Form Elements goal

The image displays two side-by-side screenshots of a jQuery Mobile application interface, demonstrating various form elements. Both screenshots show a status bar at the top with 'Carrier', signal strength, and battery level. The left screenshot is timestamped 8:48 PM and the right is 8:49 PM.

**Left Screenshot (8:48 PM):**

- Header: jQM Form Ele...
- Form elements: A 'No enhancement' button, a 'Search Input' field with a magnifying glass icon, a 'Hidden Label' field, a 'Text Input Mini' field, a 'Select number' field with radio buttons for 1 and 2, and a 'Select numbers' field with buttons for 1, 2, and 3.

**Right Screenshot (8:49 PM):**

- Form elements: A 'Hidden Label' field, a 'Text Input Mini' field, a 'Select number' field with radio buttons for 1 and 2, a 'Select numbers' field with buttons for 1, 2, and 3, and a 'Slider 75/100 ±5' field with a slider bar and a value of 75.

Both screenshots show a footer with the copyright notice '© Mikael Blomberg' and a navigation bar with standard mobile icons.

# jQuery Mobile : Form Elements

- Automatically enhances native form elements to rich touch-friendly component
- Prevent progressive enhancement by using
  - `data-role="none"`
- Enforced accessibility by requiring labels
- Labels can be hidden using
  - `class="ui-hidden-accessible"` or `"ui-hide-label"`

# jQuery Mobile : Form Elements continued

- Compact forms are rendered using
  - `data-mini="true"`
- Labels and components inline by using
  - `data-role="fieldcontain"`
- Automatically increases textarea height
- Form elements can be grouped and aligned using
  - `data-role="controlgroup"`
  - `data-type="horizontal"` (vertical by default)

# jQuery Mobile : Form Elements demo

The image displays two side-by-side screenshots of a jQuery Mobile application interface, demonstrating various form elements. Both screenshots show a status bar at the top with 'Carrier', signal strength, and battery level. The left screenshot is timestamped 8:48 PM and the right is 8:49 PM.

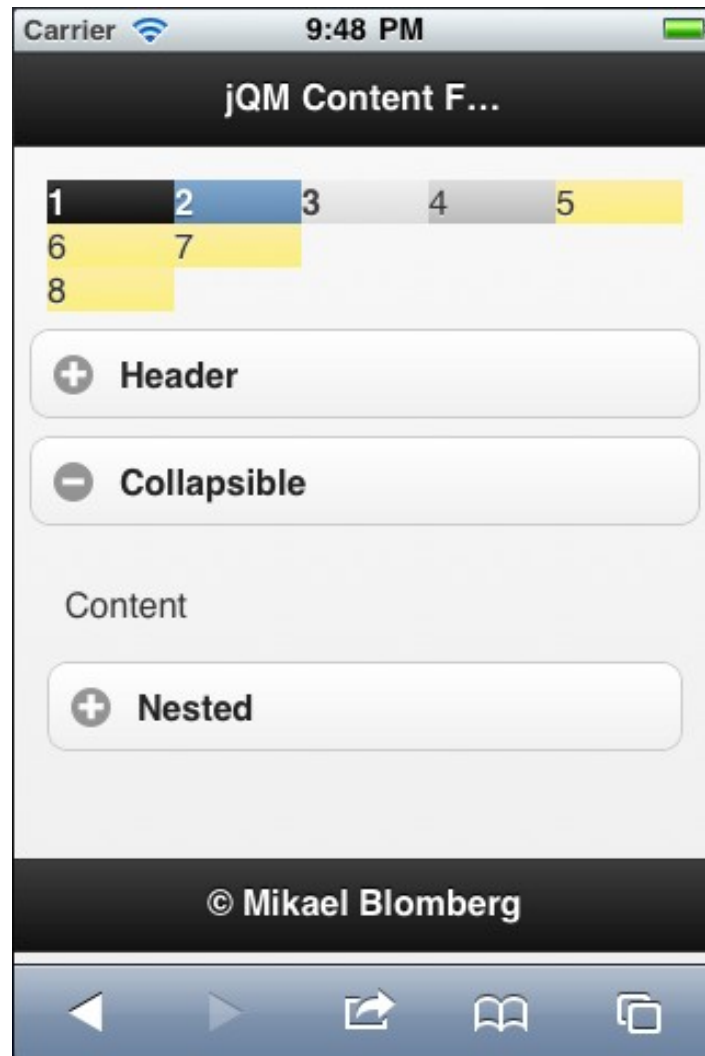
**Left Screenshot (8:48 PM):**

- Header: jQM Form Ele...
- Form elements:
  - No enhancement (button)
  - Search Input: (text input with magnifying glass icon)
  - Hidden Label (text input)
  - Text Input Mini: (small text input)
  - Select number: (radio buttons for 1 and 2, with 1 selected)
  - Select numbers: (checkboxes for 1, 2, and 3)

**Right Screenshot (8:49 PM):**

- Form elements:
  - Hidden Label (text input)
  - Text Input Mini: (small text input)
  - Select number: (radio buttons for 1 and 2, with 1 selected)
  - Select numbers: (checkboxes for 1, 2, and 3)
  - Slider 75/100  $\pm 5$ : (slider control with a value of 75)
- Footer: © Mikael Blomberg

# jQuery Mobile : Content Formatting goal





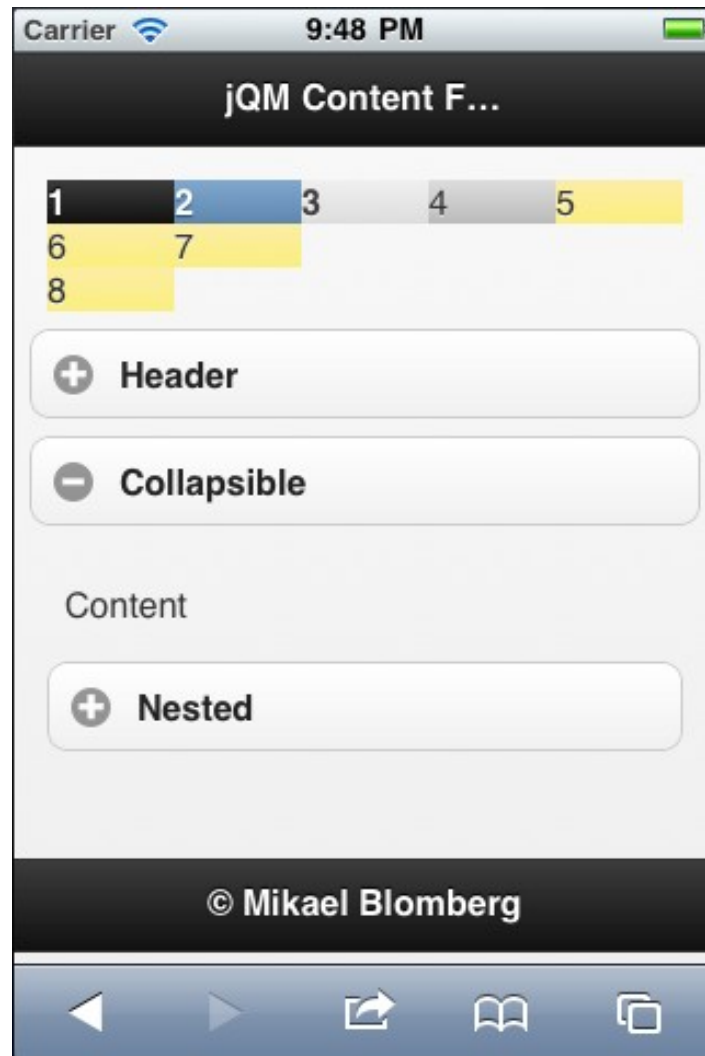
# jQuery Mobile : Content Formatting

- There are four preset grid layouts
  - class="ui-grid-a" for a two-column layout ...
  - class="ui-grid-d" for a five-column layout
- Content blocks with class="ui-block-a" (a/b/c/d/e)
  - class="ui-block-a" creates a new row
- Collapsible content by using
  - data-role="collapsible"
  - data-collapsed="true" by default
  - data-iconpos="left" by default

# jQuery Mobile : Content Formatting continued

- Nested collapsible content
  - `<div data-role="collapsible">`  
    `<h3>Collapsible</h3>`  
    `<div data-role="collapsible">`  
        `<h3>Nested</h3>...`
- Collapsible sets (Accordion)
  - `data-role="collapsible-set"`
  - `<div data-role="collapsible-set">`  
    `<div data-role="collapsible"><h3>Title</h3>...`

# jQuery Mobile : Content Formatting demo



# Thank you for attending!

Mikael Blomberg

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