

Mobile

Lecture 6 – JQuery Mobile

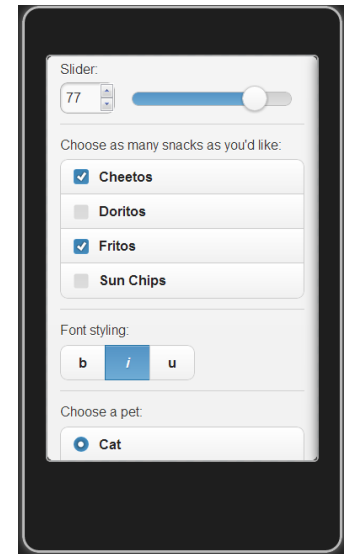
Semester I

Agenda

- Introduction
- Pages, Buttons and Toolbars
- Controls
- List Views
- Content Formatting Tools
- Mobile Events

What's JQM

- JavaScript library (needs JQ)
- Uses ajax (needs a web server)
- Cross-browser support (not native! But support: ios, android, blackberry, windows phone,...)
- Rich and interactive mobile-optimized web pages
- Touch gestures
- Themes
- Consistent look and fill across platforms



Jqm Initialisation

- We need couple of things for the jqm page:
 - Include 2 js files
 - Include 1 CSS file
 - Use data-role attribute
 - Create more than one “page” in a single file. Loads all pages at once for a more smooth transitions between the pages

The order
does matter!

```
<meta name= viewport content="width=device-width, initial-scale=1, maximum-scale=1, user-scalable=no" />
<link href="styles/jquery.mobile-1.4.5.min.css" rel="stylesheet" type="text/css" />
<script src="scripts/jquery-1.11.1.min.js" type="text/javascript"></script>
<script src="scripts/jquery.mobile-1.4.5.min.js" type="text/javascript"></script>
```

...

```
<meta name= viewport content="width=device-width, initial-scale=1, maximum-scale=1, user-scalable=no" />
<link rel="stylesheet" href="http://code.jquery.com/mobile/1.4.5/jquery.mobile-1.4.5.min.css" />
<script src="http://code.jquery.com/jquery-1.11.1.min.js"></script>
<script src="http://code.jquery.com/mobile/1.4.5/jquery.mobile-1.4.5.min.js"></script>
```

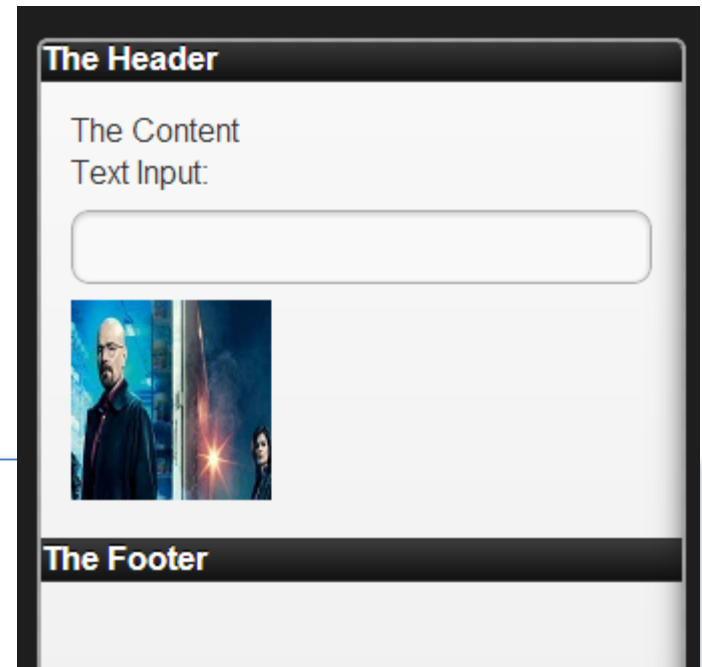
Agenda

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- **Pages, Buttons and Toolbars**
- Controls
- List Views
- Content Formatting Tools
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Page

- data-role="page"
- data-role="header"
- data-role="footer"
- data-role="content"

```
<div data-role="page">
  <div data-role="header">
    The Header
  </div>
  <div data-role="content">
    The Content
    <label for="basic">Text Input:</label>
    <input type="text" name="name" id="basic" value="" />
    
  </div>
  <div data-role="footer">
    The Footer
  </div>
</div>
```

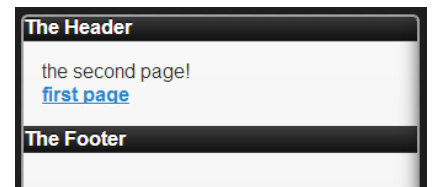
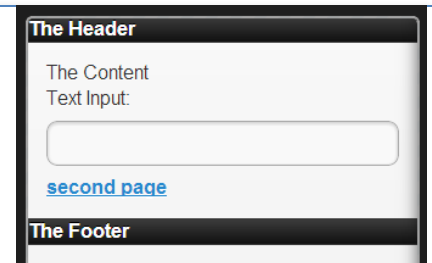


Multi Pages – Internal Pages

- We can (and should) create all the mobile “pages” on the same html page(file)
- Each page has it's own id and the navigation is through the anchor and # - sign: `first page`

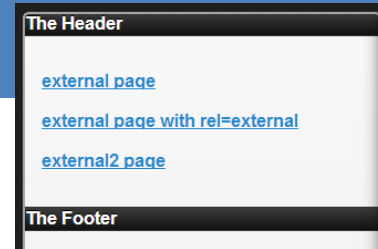
```
<!--the first page-->
<div data-role="page" id="firstPage">
...
<div data-role="content">
    The Content
    <label for="basic">Text Input:</label>
    <input type="text" name="name" id="basic" value="" />
    <a href="#secondPage">second page</a>
</div>
...

<!--the second page-->
<div data-role="page" id="secondPage">
...
    <div data-role="content">
        the second page!
        <br />
        <a href="#firstPage">first page</a>
    </div>
...
</div>
```



Multi Pages – External Pages

- We can call external page in two ways:
 - The standard way with ``
 - Using the attribute `` - will **NOT** upload the file in a mobile look and fill. If a mobile page is existent than it will ignore it and show the page in a regular manner (the same as `data-ajax="false"` or `target="foo"`)



```
<div data-role="content">
  <p><a href="02_1_stam_external.html">external page(mobile look and fill)
</a></p>
  <p><a href="02_1_stam_external.html" rel="external">external page with
rel=external</a></p>
  <p><a href="02_2stam_external2.html">external2 page(mobile look and
fill)</a></p>
```

02_1_stam_external.html

```
<body>
  out side the data-role=page
  <div data-role="page" id="firstPage">
    <div data-role="content">
      inside the data-role=page
    </div>
  </div>
</body>
```

inside the data-role=page

out side the data-role=page
inside the data-role=page

02_2_stam_external.html

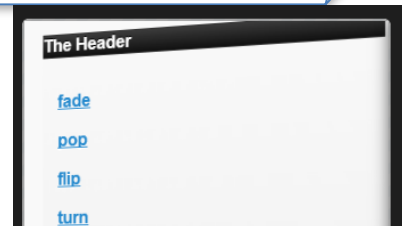
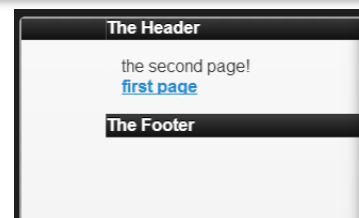
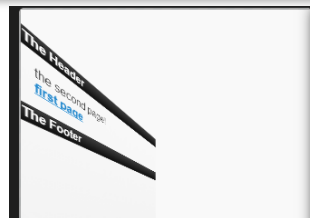
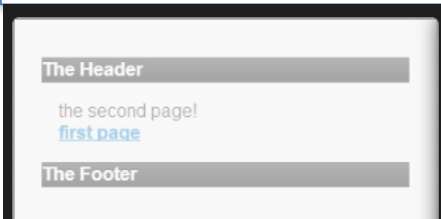
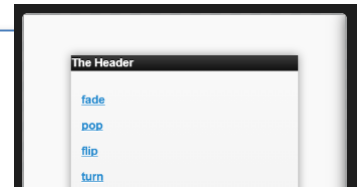
```
<body>
  inside the external page with no
  mobile content
</body>
```

inside the external page with no mobile
content

Transitions

- When linking to another page we can control the way appearance is done.
- Currently there are 10 styles: fade, pop, flip, turn, flow, slidefade, slide, slideup, slidedown, none

```
<p><a href="#secondPage" data-transition="fade">fade</a></p>
<p><a href="#secondPage" data-transition="pop">pop</a></p>
<p><a href="#secondPage" data-transition="flip">flip</a></p>
<p><a href="#secondPage" data-transition="turn">turn</a></p>
<p><a href="#secondPage" data-transition="flow">flow</a></p>
<p><a href="#secondPage" data-transition="slidefade">slidefade</a></p>
<p><a href="#secondPage" data-transition="slide">slide</a></p>
<p><a href="#secondPage" data-transition="slideup">slideup</a></p>
<p><a href="#secondPage" data-transition="slidedown">slidedown</a></p>
<p><a href="#secondPage" data-transition="none">none</a></p>
```

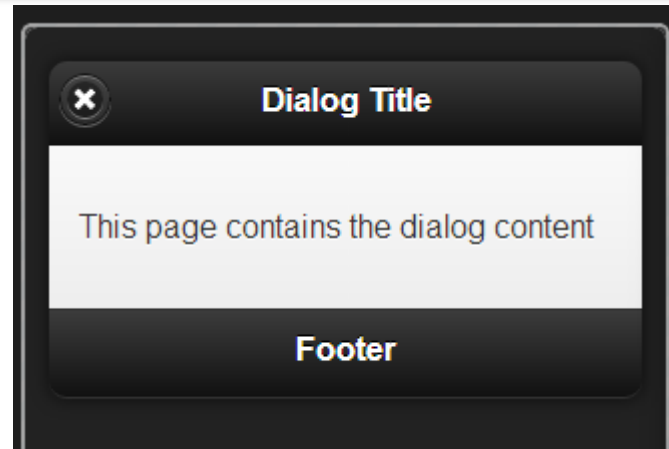
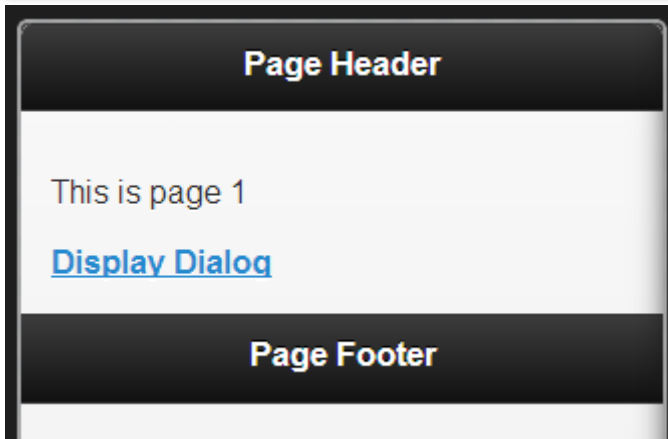


Dialog

- Any page can be open as dialog using the data-rel="dialog" (little popup window, not included in history)

```
<div id="firstpage" data-role="page">
...
<a href="#secondpage" data-rel="dialog">Display Dialog</a>
...

<div id="secondpage" data-role="page">
```



Up now I'm using :

```
<link rel="stylesheet" href="http://code.jquery.com/mobile/1.3.2/jquery.mobile-1.3.2.min.css" />
<script src="http://code.jquery.com/jquery-1.9.1.min.js" type="text/javascript" ></script>
<script src="http://code.jquery.com/mobile/1.3.2/jquery.mobile-1.3.2.min.js" type="text/javascript" ></script>
```

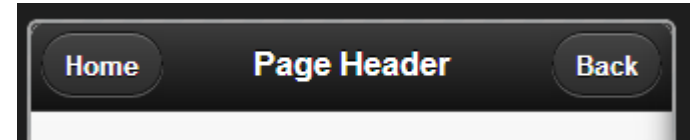
Header

Can use <Header>

The header can have one or two buttons:

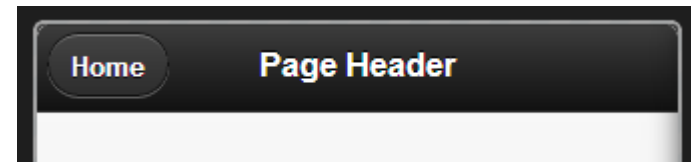
- one left and one right

```
<div data-role="header">  
  <a href="#" >Home</a>  
  <h1>Page Header</h1>  
  <a href="#" >Back</a>  
</div>
```



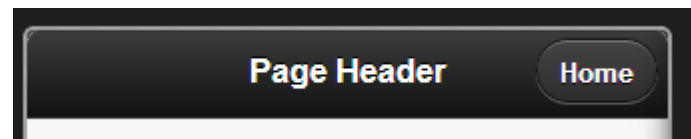
- one left

```
<div data-role="header">  
  <a href="#" >Home</a>  
  <h1>Page Header</h1>  
</div>
```



- one right : *class="ui-btn-right"*

```
<div data-role="header">  
  <a href="#" class="ui-btn-right">Home</a>  
  <h1>Page Header</h1>  
</div>
```



Can use <Footer>

Footer

The footer can have many buttons

```
<div data-role="footer">
  <a href="#">button1</a>
  <a href="#">button2</a>
  <a href="#">button3</a>
</div>
```

Display Dialog

button1

button2

button3

- In order to enhance the design use: `class="ui-bar"`

```
<div data-role="footer" class="ui-bar">
  <a href="#">button1</a>
  <a href="#">button2</a>
  <a href="#">button3</a>
</div>
```

Display Dialog

button1

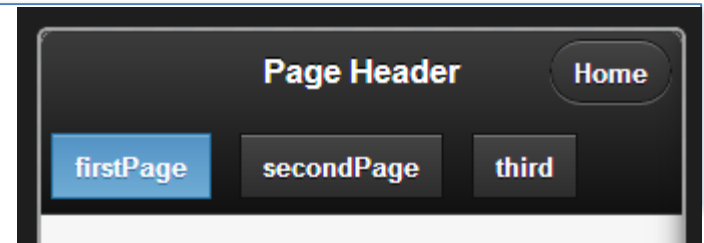
button2

button3

Navigation Bar

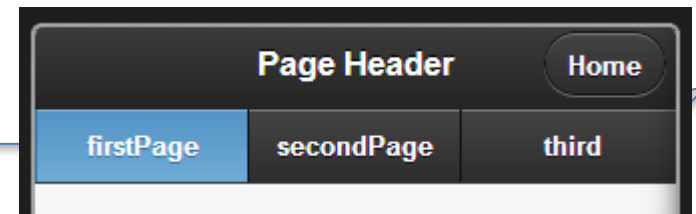
- A menu of links

```
<div data-role="navbar">
  <a href="#">firstPage</a>
  <a href="#secondPage">secondPage</a>
  <a href="#">third</a>
</div>
```



- In order to enhance the design use: `` and ``

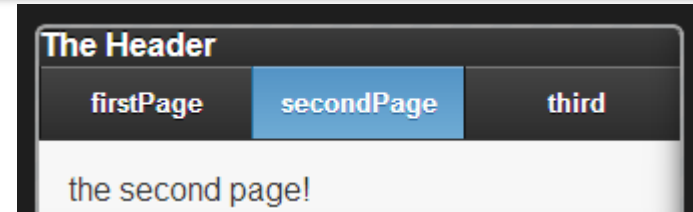
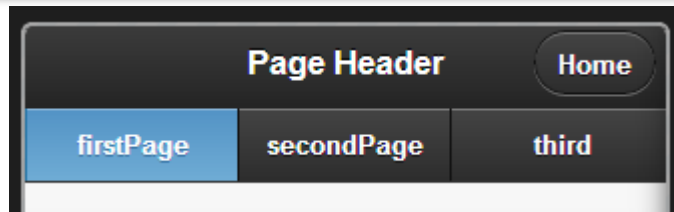
```
<div data-role="navbar">
  <ul>
    <li><a href="#">firstPage</a></li>
    <li><a href="#secondPage">secondPage</a></li>
    <li><a href="#">third</a></li>
  </ul>
</div>
```



Navigation Bar cont'

- We can show the current page button after the transition: `class="ui-state-persist"`

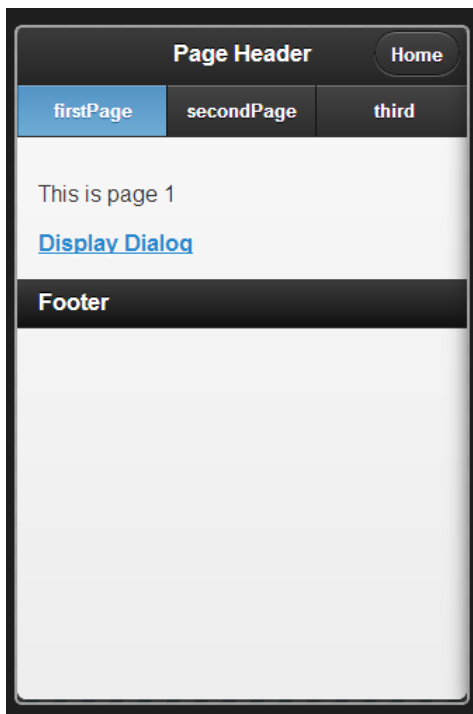
```
<div id="firstpage" data-role="page">
...
  <div data-role="navbar">
    <ul>
      <li><a href="#firstpage" class="ui-state-persist">firstPage</a></li>
    </ul>
  </div>
</div>
...
<div data-role="page" id="secondPage">
...
  <div data-role="navbar">
    <ul>
      <li><a href="#firstpage">firstPage</a></li>
      <li><a href="#secondPage" class="ui-state-persist">secondPage</a></li>
    </ul>
  </div>
</div>
```



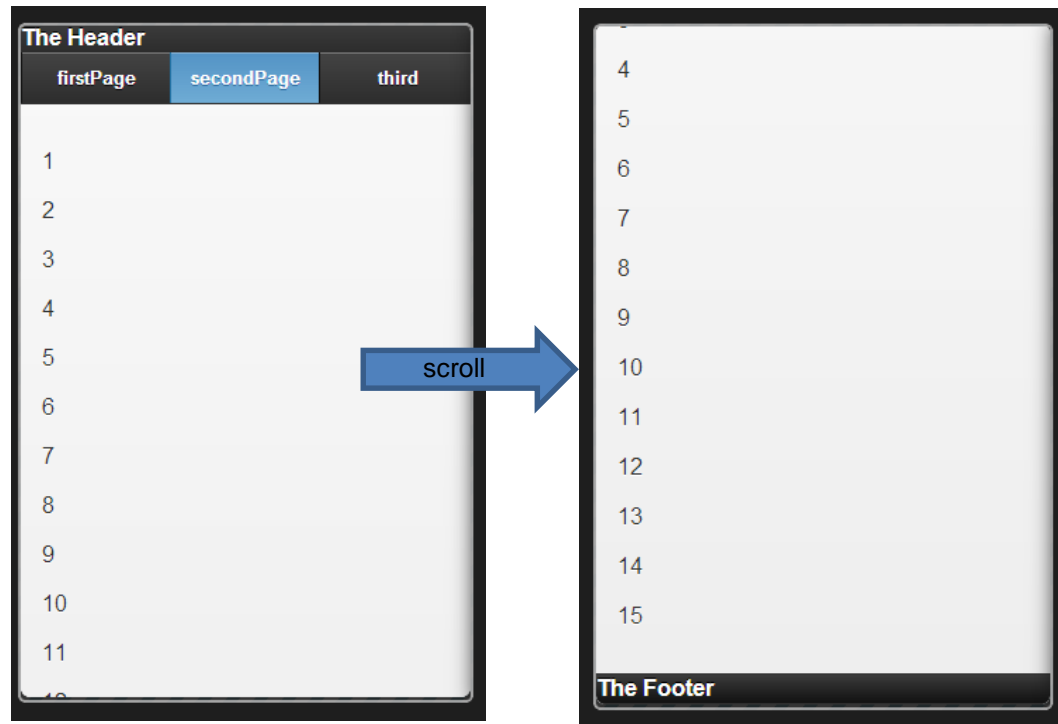
Header\Footer positioning

- We can use 3 difference positioning options on headers\footers :
 - *Inline* – the default. Header on top of the content and footer right after the content

For short content



For long content

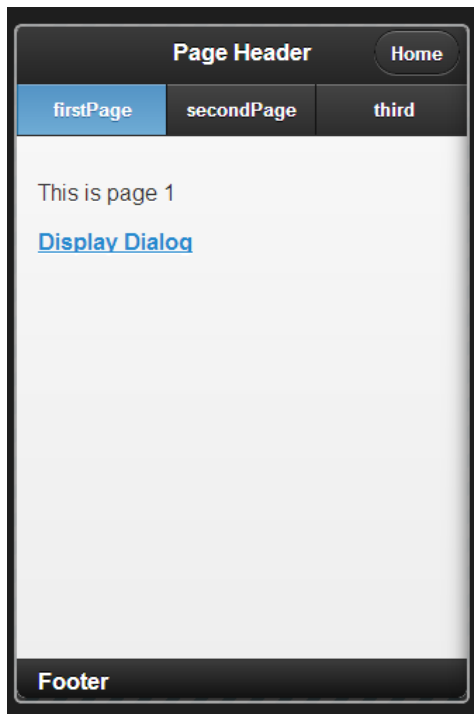


Navigation Bar positioning cont'

- *fixed* – disappear while scrolling .By tapping show and hide

```
<header data-role="header" data-position="fixed">
```

For short content



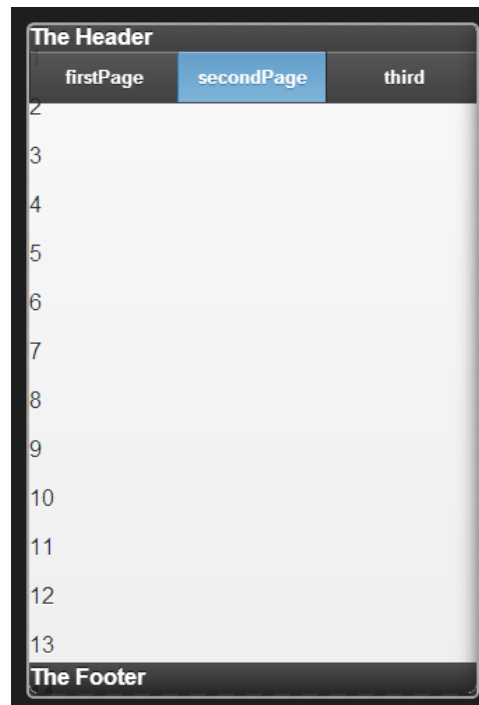
For long content



Navigation Bar positioning cont'

- *fullscreen* – like *fixed* but showing ontop of the content and opaque

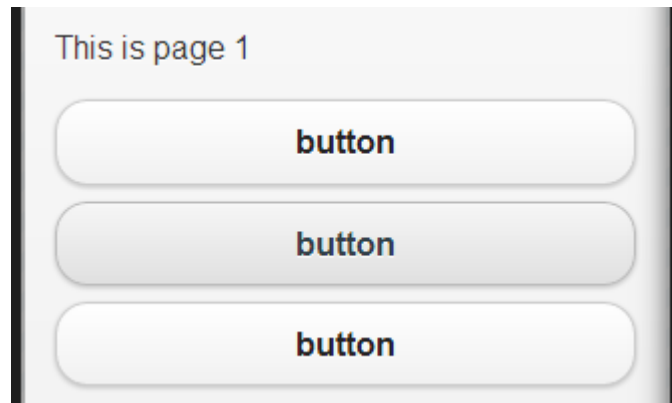
```
div data-role="page" id="secondPage" data-fullscreen="true">
```



Buttons

- 3 ways to create a button:

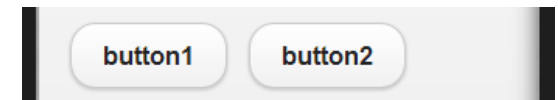
```
<a href="#" data-role="button">button</a>  
<button>button</button>  
<input type="button" value="button" />
```



Buttons cont'

- To prevent the button of taking 100% of the screen width we use: *data-inline="true"*

```
<a href="#" data-role="button" data-inline="true">button1</a>  
<a href="#" data-role="button" data-inline="true">button2</a>
```



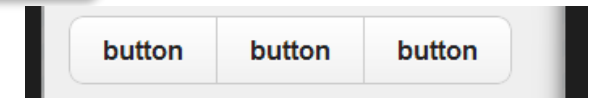
- To group several buttons together use *data-role="controlgroup"*

```
<div data-role="controlgroup">  
  <a href="#" data-role="button">button1</a>  
  <a href="#" data-role="button">button2</a>  
  <a href="#" data-role="button">button3</a>  
  <a href="#" data-role="button">button4</a>  
</div>
```



- To group them horizontally: *data-type="horizontal"*

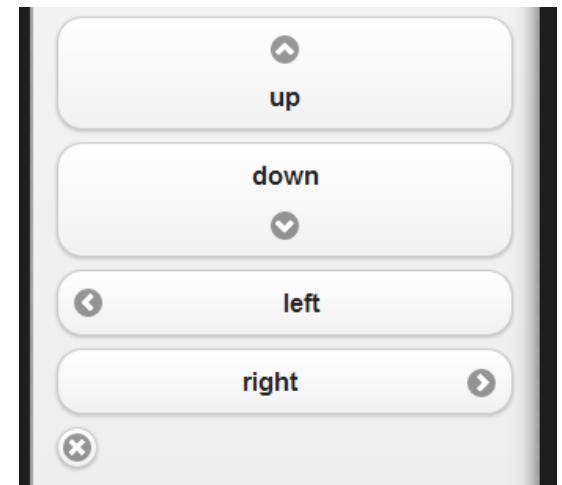
```
<div data-role="controlgroup" data-type="horizontal">
```



Button Icons

- We can use a lot of icons for buttons : `data-icon="arrow-l"`
 - `arrow-l` , `arrow-r` , `arrow-u` , `arrow-d` , `delete` , `plus` , `minus` , `check` , `gear` , `refresh` , `forward` , `back` , `grid` , `star` , `alert` , `info` , `home` , `search`
- Also we can change their position: `data-iconpos="top"`
 - `bottom` , `top` , `right` , `left` , `notext`

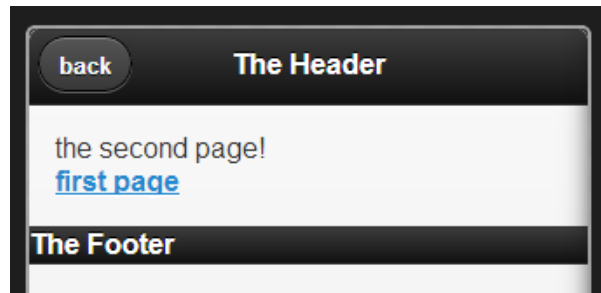
```
<a href="#" data-role="button" data-icon="arrow-u" data-iconpos="top">up</a>
<a href="#" data-role="button" data-icon="arrow-d" data-iconpos="bottom">down</a>
<a href="#" data-role="button" data-icon="arrow-l" data-iconpos="left">left</a>
<a href="#" data-role="button" data-icon="arrow-r" data-iconpos="right">right</a>
<a href="#" data-role="button" data-icon="delete" data-iconpos="notext">delete</a>
```



Back in history

- We can get back in history through: *data-rel="back"*

```
<div data-role="header">  
  <h1>The Header</h1>  
  <a href="#" data-rel="back" data-role="button">back</a>  
</div>
```



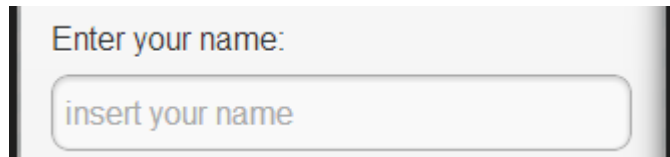
Agenda

- Introduction
- Pages, Buttons and Toolbars
- **Controls**
- List Views
- Content Formatting Tools
- Mobile Events

Don't use form tag!

- Don't use the `<form>` tag!!! – it can cause problems later on when coding the event handlers!! (it will make the wiring of events to run only once!)
- Every control should have a unique id within all the site and not only within the page! (multipage)
- AJAX technology
- Couple each control with a `<label for="controlId">`

```
<label for="fpInputNameId">Enter your name:</label>
<input type="text" id="fpInputNameId" name="fpInputName" placeholder="insert your
name" />
```



Forms cont'

- To hide a label use : `class="ui-hidden-accessible"`
- Group control together using : `<div data-role="fieldcontain">`
- You can hide a label also using : `class="ui-hide-label"`

```
<label for="fpInputName2" class="ui-hidden-accessible">Enter your name2:</label>
<input type="text" id=" fpInputName2" name="fpInputName2" placeholder="insert your name"
/>

<div data-role="fieldcontain">
  <label for="fpInputName3">Enter name3:</label>
  <input type="text" id=" fpInputName3" name="fpInputName3" placeholder="insert your
name" />
</div>

<div data-role="fieldcontain" class="ui-hide-label">
  <label for="fpInputName4">Enter name4:</label>
  <input type="text" name="fpInputName4" id="fpInputName4" placeholder="insert your
name4" />
</div>
```



Inputs

- Jqm enhanced the various html5 input types and opens the appropriate keyboard for them

```
<form action="">
  <fieldset data-role="fieldcontain" style="border:1px solid black;padding:5px;">
    <legend>some inputs:</legend>
    <label for="text">Text:</label>
    <input type="text" id="text" name="text" placeholder="insert text" />
    <label for="number">Number:</label>
    <input type="number" id="number" name="number" placeholder="insert number" />
    <label for="email">Email:</label>
    <input type="email" id="email" name="email" placeholder="insert email" />
    <label for="date">Date:</label>
    <input type="date" id="date" name="date" placeholder="insert date" />
    <label for="search">Search:</label>
    <input type="search" id="search" name="search" placeholder="insert search" />
    <label for="textarea">Textarea:</label>
    <textarea id="textarea" name="textarea" placeholder="insert textarea"></textarea>
  </fieldset>
</form>
```

some inputs:

Text:
avi

Number:
7

Email:
avi@gmail.com

Date:
▼ ▲ ✕ 30/01/2013

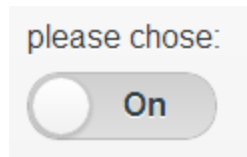
Search:
🔍 avi ✕

Textarea:
1
2
3

Toggle Switch - slider

- Choose from two options using `:date-role="slider"`

```
<fieldset data-role="fieldcontain">
  <label for="sel">please chose:</label>
  <select id="sel" name="sel" data-role="slider">
    <option>On</option>
    <option>Off</option>
  </select>
</fieldset>
```



Radio Buttons

- Choose from more than two options using `:data-role="controlgroup"`

```
<fieldset data-role="controlgroup">
  <legend>Please Select:</legend>
  <label for="option1">option1</label>
  <input type="radio" name="rb" id="option1" value="option1" />
  <label for="option2">option2</label>
  <input type="radio" name="rb" id="option2" value="option2" />
  <label for="option3">option3</label>
  <input type="radio" name="rb" id="option3" value="option3" />
</fieldset>
```

All with the same name

Please Select:

- ☐ option1
- ☒ option2
- ☐ option3

- Can be horizontal

```
<fieldset data-role="controlgroup" data-type="horizontal">
```

Please Select:

opt1 opt2 opt3

Check Boxes

- Choose more than one option using checkboxes in `:data-role="controlgroup"`

```
<fieldset data-role="controlgroup" >
  <legend>Please Select:</legend>
  <label for="ck1">Dexter</label>
  <input type="checkbox" name="ck1" id="ck1" value="ck1" />
  <label for="ck2">Debra</label>
  <input type="checkbox" name="ck2" id="ck2" value="ck2" />
  <label for="ck3">Batista</label>
  <input type="checkbox" name="ck3" id="ck3" value="ck3" />
</fieldset>
```

Please Select:

☒ Dexter

☒ Debra

☐ Batista

- Can be horizontal

```
<fieldset data-role="controlgroup" data-type="horizontal">
```

Please Select:

Dexter

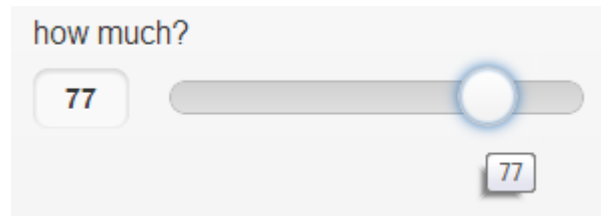
Debra

Batista

Range

- You can use the range control

```
<div data-role="fieldcontain">  
  <label for="range">how much?</label>  
  <input type="range" name="range" id="range" min="0" max="100"  
value="70" />  
</div>
```



how much?

77

77

data-mini="true"

- All form controls can be added the `data-mini="true"` in order to create a smaller appearance of the element

```
<p><input type="range" name="range" id="range1" min="0" max="100" value="70" /></p>
<p><input type="range" name="range" id="range" min="0" max="100" value="70" data-
mini="true" /></p>
</div>
<fieldset data-role="controlgroup" data-type="horizontal">
  <legend>Please Select:</legend>
  <label for="option1">opt1</label>
  ...
</fieldset>
<fieldset data-role="controlgroup" data-type="horizontal" data-mini="true">
  <legend>Please Select:</legend>
  <label for="Radio1">opt1</label>
  <input type="radio" name="rb2" id="Radio1" value="option1" />
```

how much?

70

41

Please Select:

opt1 opt2 opt3

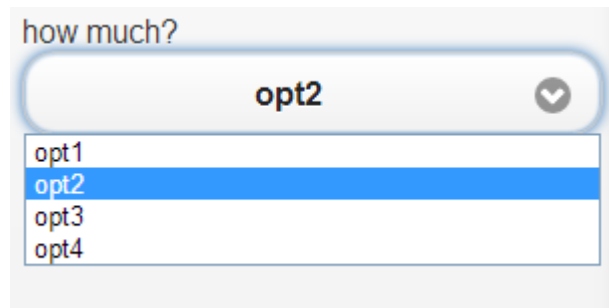
Please Select:

opt1 opt2 opt3

Simple Select List

- Select List can have some different appearances on different environments

```
<div data-role="fieldcontain">
  <label for="range">how much?</label>
  <select id="sel" name="sel">
    <option value="opt1">opt1</option>
    <option value="opt2">opt2</option>
    <option value="opt3">opt3</option>
    <option value="opt4">opt4</option>
  </select>
</div>
```



Will look
different on
iPhone or
android or...

List Group

- We can group lists exactly as we group other controls like buttons or radio buttons...using : *data-role="controlgroup"*

```
<div data-role="fieldcontain">
  <fieldset data-role="controlgroup">
    <legend>choose date</legend>
    <label for="month">month:</label>
    <select id="month" name="month">
      <option value="Januar">Januar</option>
      <option value="Februar">Februar</option>
      <option value="March">March</option>
      <option value="April">April</option>
    </select>
    <label for="year">year:</label>
    <select id="year" name="year">
      <option value="2012">2012</option>
      <option value="2013">2013</option>
      <option value="2014">2014</option>
      <option value="2015">2015</option>
    </select>
  </fieldset>
</div>
```

choose date

March	▼
2013	▼

choose date

March	▼
2013	▼
2012	
2013	
2014	
2015	

Will look different on iPhone or android or...

- Can appear horizontal : *data-type="horizontal"*

```
<fieldset data-role="controlgroup" data-type="horizontal">
```

choose date

Januar	▼
2012	▼

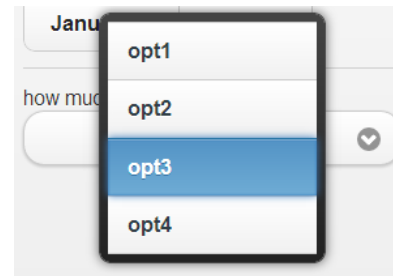
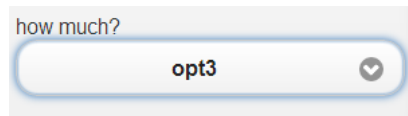
choose date

Januar	▼
2012	▼
2012	
2013	
2014	
2015	

Custom select menu

- To prevent every environment showing different select menu style we can use : *data-native-menu="false"*

```
<select id="Select1" name="sel" data-native-menu="false">
```



Custom select menu cont'

- Using of *optgroup* to group some options together

```
<select id="Select2" name="sel" data-native-menu="false">
  <option>choose one option</option>
  <optgroup label="first group">
    <option value="opt1">opt1</option>
    <option value="opt2">opt2</option>
    <option value="opt3">opt3</option>
  </optgroup>
  <optgroup label="second group">
    <option value="opt4">opt4</option>
    <option value="opt5">opt5</option>
    <option value="opt6">opt6</option>
  </optgroup>
</select>
```

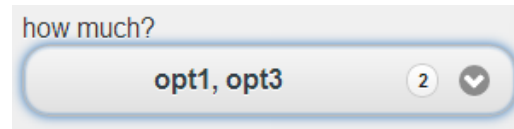
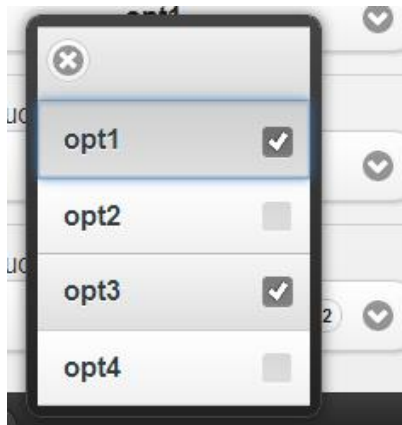
Option with no
value

choose one option
first group
opt1
opt2
opt3
second group
opt4
opt5
opt6

Multiple select menu

- You can select multiple elements using :
multiple="multiple"

```
<select id="Select3" name="sel" data-native-menu="false" multiple="multiple">
```



Agenda

- Introduction
- Pages, Buttons and Toolbars
- Controls
- **List Views**
- Content Formatting Tools
- Mobile Events

List View

- List view can be created on ordered or unordered list:
data-role="listview"

```
<h2>Dexter:</h2>
<ul id="lv" data-role="listview">
  <li>dexter</li>
  ...
  <li>vince</li>
</ul>
<h2>Dexter:</h2>
<ol id="U11" data-role="listview">
  <li>dexter</li>
  <li>debra</li>
  ...
  <li>vince</li>
</ol>
```

Dexter:
dexter
debra
batista
harry
vince
Dexter:
1. dexter
2. debra

Tappable Link

- In order to make the list item tappable you need to insert a link

```
<h2>Dexter:</h2>
<ul id="lv" data-role="listview">
  <li><a href="#">dexter</a></li>
  <li><a href="#">debra</a></li>
  <li><a href="#">batista</a></li>
  <li><a href="#">harry</a></li>
  <li><a href="#">vince</a></li>
</ul>
```

Dexter:	
dexter	➤
debra	➤
batista	➤
harry	➤
vince	➤

List Divider

- You can place a divider into your list: *data-role="divider"*

```
<ul id="lv" data-role="listview">
  <li data-role="divider">family</li>
  <li><a href="#">dexter</a></li>
  <li><a href="#">debra</a></li>
  <li data-role="divider">friends</li>
  <li><a href="#">batista</a></li>
  <li><a href="#">harry</a></li>
  <li><a href="#">vince</a></li>
</ul>
```

Dexter:	
family	
dexter	➤
debra	➤
friends	
batista	➤
harry	➤
vince	➤

Count Bubbles

- You can add a count bubble to the LI : `52`

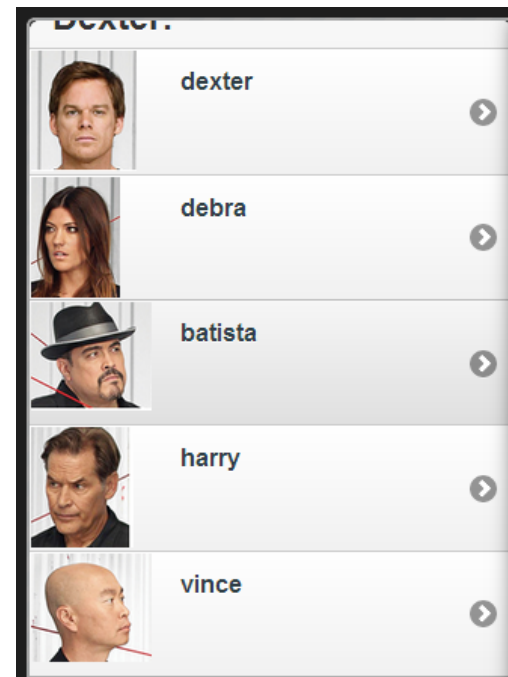
```
<h2>Dexter:</h2>
<ul id="lv" data-role="listview">
  <li><a href="#">dexter<span class="ui-li-count">52</span></a></li>
  <li><a href="#">debra<span class="ui-li-count">2</span></a></li>
  <li><a href="#">batista<span class="ui-li-count">2</span></a></li>
  <li><a href="#">harry<span class="ui-li-count">3</span></a></li>
  <li><a href="#">vince<span class="ui-li-count">0</span></a></li>
</ul>
```

Dexter:		
dexter	52	>
debra	2	>
batista	2	>
harry	3	>
vince	0	>

Thumbnail

- You can add a thumbnail (80X80 pixel) to the LI just by adding an image

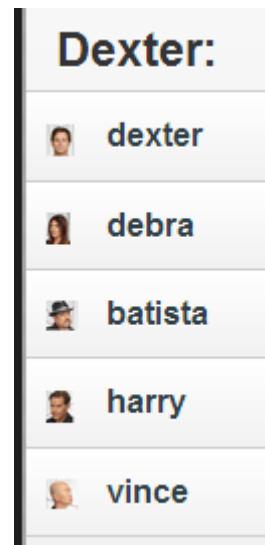
```
<h2>Dexter:</h2>
<ul id="lv" data-role="listview">
  <li><a href="#">dexter</a></li>
  <li><a href="#">debra</a></li>
  <li><a href="#">batista</a></li>
  <li><a href="#">harry</a></li>
  <li><a href="#">vince</a></li>
</ul>
```



Icons

- You can add an icon (16X16 pixels) to the LI : `class="ui-li-icon"`

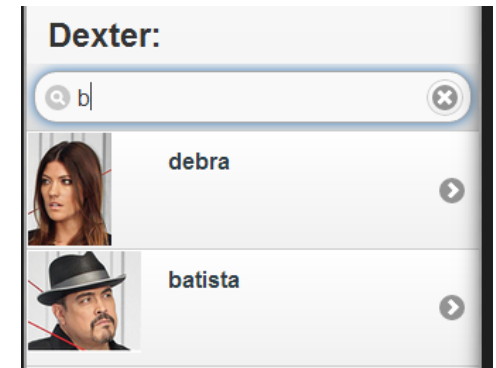
```
<h2>Dexter:</h2>
<ul id="lv" data-role="listview">
  <li><a href="#">dexter</a></li>
  <li><a href="#">debra</a></li>
  ...
  <li><a href="#">vince</a></li>
</ul>
```



Filter

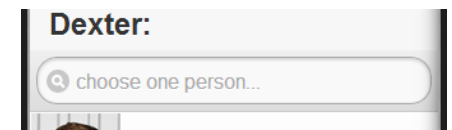
- You can add a filter to your list : *data-filter="true"*

```
<ul id="lv" data-role="listview" data-filter="true">
```



- You can add a place holder to the filter : *data-filter-placeholder="..."*

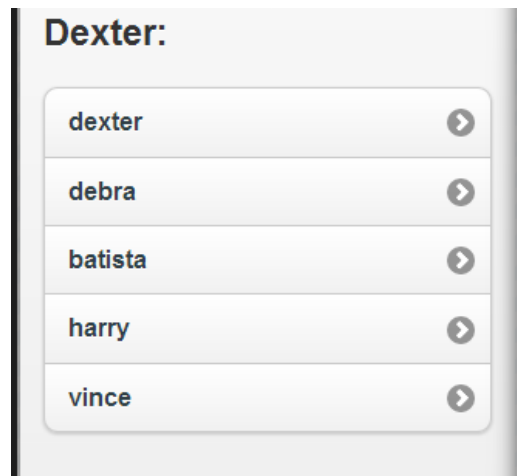
```
<ul id="lv" data-role="listview" data-filter="true" data-filter-placeholder="choose one person...">
```



Inset

- You can add some automatic margin around the list :
data-inset="true"

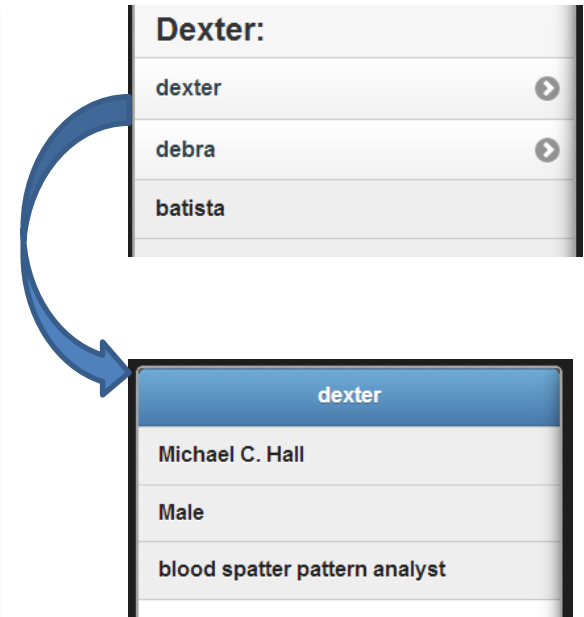
```
<ul id="lv" data-role="listview" data-inset="true">
```



Nested List

- You can add a list within a list

```
<h2>Dexter:</h2>
<ul id="lv" data-role="listview">
  <li>dexter
    <ul id="U11" data-role="listview">
      <li>Michael C. Hall</li>
      <li>Male</li>
      <li>blood spatter pattern
analyst</li>
    </ul>
  </li>
  <li>debra
    <ul id="U12" data-role="listview">
      <li>Jennifer Carpenter</li>
      <li>Female</li>
      <li>detective</li>
    </ul>
  </li>
  <li>batista</li>
  <li>harry</li>
  <li>vince</li>
</ul>
```



Split Buttons

- The link item can be split into two links. One with big area and one with small one. Just use two links in the LI.

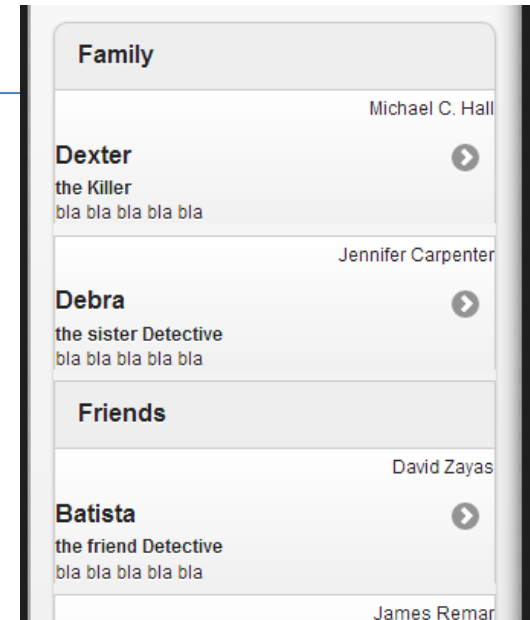
```
<h2>Dexter:</h2>
<ul id="lv" data-role="listview">
  <li>
    <a href="#">dexter</a>
    <a href="#">pics</a>
  </li>
  <li>
    <a href="#">debra</a>
    <a href="#">pics</a>
  </li>
  ...
```



Rich Style Item

- We can add many elements to the item's content to make it as rich as we want, including : `class="ui-li-aside"`

```
<h2>Dexter:</h2>
<ul id="lv" data-role="listview" data-inset="true">
  <li data-role="divider">Family</li>
  <li>
    <a href="#"></a>
    <h4>Dexter</h4>
    <p style="font-weight:bold">the Killer</p>
    <p class="ui-li-aside">Michael C. Hall</p>
    <p>bla bla bla bla bla</p>
  </li>
  <li>
    <a href="#"></a>
    <h4>Debra</h4>
    <p style="font-weight:bold">the sister Detective</p>
    <p class="ui-li-aside">Jennifer Carpenter</p>
    <p>bla bla bla bla bla</p>
  </li>
</ul>
```

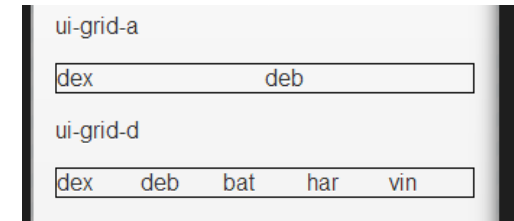


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- Introduction
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Grid

- Jqm has a grid formatting available in 4 sizes:
 - `class="ui-grid-a"` : two columns grid
 - `class="ui-grid-b"` : three columns grid
 - ...
 - `class="ui-grid-d"` : five columns grid
- Each cell in a row is marked as `class="ui-block-a"`, `class="ui-block-b"`, ..., `class="ui-block-e"`



```
<p>ui-grid-a</p>
<div class="ui-grid-a" style="border:1px solid black">
  <div class="ui-block-a">dex</div>
  <div class="ui-block-b">deb</div>
</div>
<p>ui-grid-d</p>
<div class="ui-grid-d" style="border:1px solid black">
  <div class="ui-block-a">dex</div>
  <div class="ui-block-b">deb</div>
  <div class="ui-block-c">bat</div>
  <div class="ui-block-d">har</div>
  <div class="ui-block-e">vin</div>
</div>
```

Multiple Rows

- We only need to start with `class="ui-block-a"`, ... again

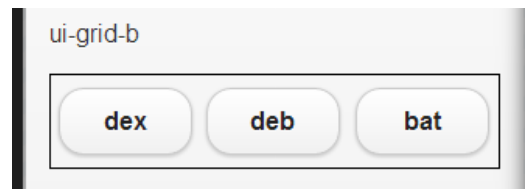
```
<p>ui-grid-a</p>
<div class="ui-grid-a" style="border:1px solid black">
  <div class="ui-block-a">dex</div>
  <div class="ui-block-b">deb</div>
  <div class="ui-block-a">bat</div>
  <div class="ui-block-b">har</div>
</div>
```

ui-grid-a	
dex	deb
bat	har

Format Controls

- Using the grid its very simple to format the controls on the page

```
<form action="">
  <p>ui-grid-b</p>
  <div class="ui-grid-b" style="border:1px solid black">
    <div class="ui-block-a"><button>dex</button></div>
    <div class="ui-block-b"><button>deb</button></div>
    <div class="ui-block-c"><button>bat</button></div>
  </div>
</form>
```

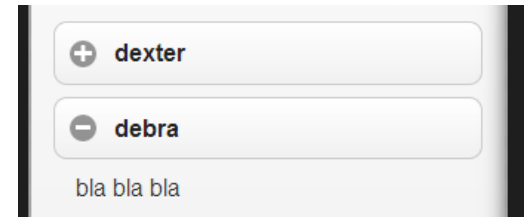


Collapsible

- We can create some collapsible content using the: `data-role="collapsible"`
- We can use the `data-collapsed="false"` to open the collapsible on load

```
<div data-role="collapsible">
  <h1>dexter</h1>
  <div>bla bla bla</div>
</div>

<div data-role="collapsible" data-collapsed="false">
  <h1>debra</h1>
  <div>bla bla bla</div>
</div>
```



- The collapsible can be nested

```
<div data-role="collapsible">
  <h1>dexter</h1>
  <div>bla bla bla</div>
  <div data-role="collapsible" data-collapsed="false">
    <h1>debra</h1>
    <div>bla bla bla</div>
  </div>
</div>
```



Accordion - Collapsible Set

- You can group several collapsible together so when you choose one all the other closes automatically using: `data-role="collapsible-set"`

```
<div data-role="collapsible-set">
  <div data-role="collapsible">
    <h1>dexter</h1>
    <div>bla bla bla</div>
  </div>
  <div data-role="collapsible" data-collapsed="false">
    <h1>debra</h1>
    <div>bla bla bla</div>
  </div>
  <div data-role="collapsible" >
    <h1>harry</h1>
    <div>bla bla bla</div>
  </div>
</div>
```



Theme

- Theme is a set of CSS3 rules to get a certain look and fill for the page. Jqm has a default of five theme a to e using : `data-theme="a"`
- You can mix many themes within the page
- Each element inherit the theme form its parent
- You can create your own theme in <http://jquerymobile.com/themeroller/>

```
<div id="firstpage" data-role="page" data-theme="a">
  <div data-role="header" data-theme="d">
    <a href="#" class="ui-btn-right" data-theme="b">Home</a>
  ...

    <div class="ui-grid-b" style="border:1px solid black" >
      <div class="ui-block-a"><button data-theme="a">dex</button>
      <div class="ui-block-b"><button data-theme="b">deb</button>
      <div class="ui-block-c"><button data-theme="c">bat</button>
    </div>
    <p>ui-grid-a</p>
    <div class="ui-grid-a" style="border:1px solid black" >
      <div class="ui-block-a"><button data-theme="d">harry</button>
      <div class="ui-block-b"><button data-theme="e">vince</button>
    ...

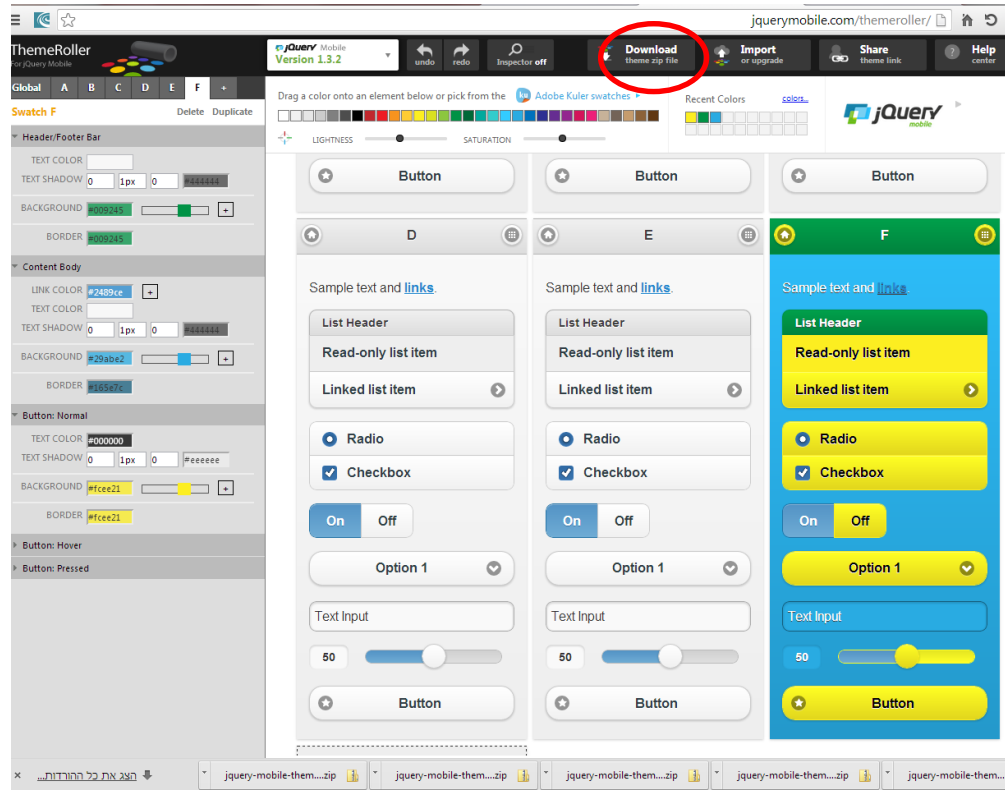
    <div data-role="collapsible-set" data-theme="c">
  ...

  <div data-role="footer" class="ui-bar" data-position="fixed" data-theme="d">
```



Theme Roller

- We can create some themes of our own using the theme roller in : <http://jquerymobile.com/themeroller/>



```
<link rel="stylesheet" href="themes/nir.min.css" />
<link rel="stylesheet" href="http://code.jquery.com/mobile/1.3.2/jquery.mobile.structure-1.3.2.min.css" />
<script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
<script src="http://code.jquery.com/mobile/1.3.2/jquery.mobile-1.3.2.min.js"></script>
```

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- **Mobile Events**

pagecreate

- In mobile application there are several “pages” within one document this is why we bind the events of each “page” using the `$(document).on("pagecreate", "#firstpage", function (event) {...});` and not the `$(document).ready(...)`
- **pagecreate** – is fired after jqm has finished enhancing the page

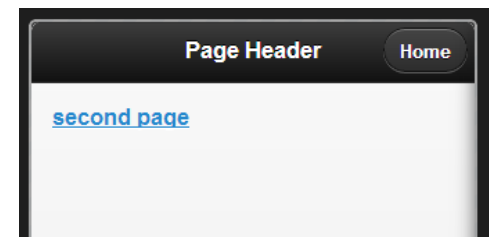
```
<script type="text/javascript">
  $(document).on("pagecreate", "#firstpage", function (event) {
    wireEventsFirstpage();
  });

  $(document).on("pagecreate", "#secondpage", function (event) {
    wireEventsSecondpage();
  });

  function wireEventsFirstpage() {
...
  }

  function wireEventsSecondpage() {
...
  }
</script>

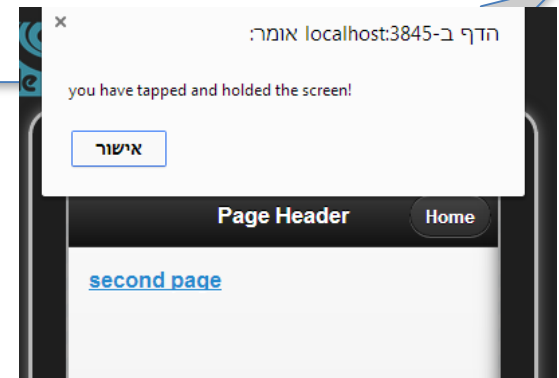
<div id="firstpage" data-role="page">
...
<div id="secondpage" data-role="page">
```



Touch Events

- tap – like click but faster
- taphold – tap and hold for one second
- swipe – more than 30px to the side and less than 20px up or down
- swiperight - more than 30px to the right and less than 20px up or down
- swipeleft - more than 30px to the left and less than 20px up or down

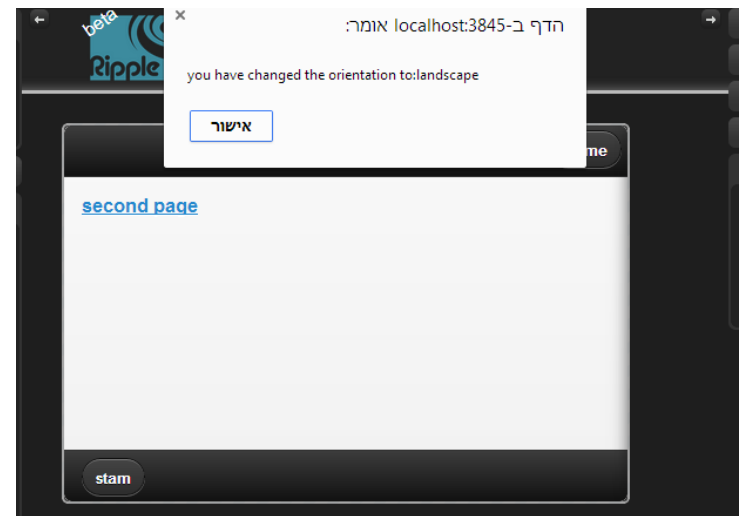
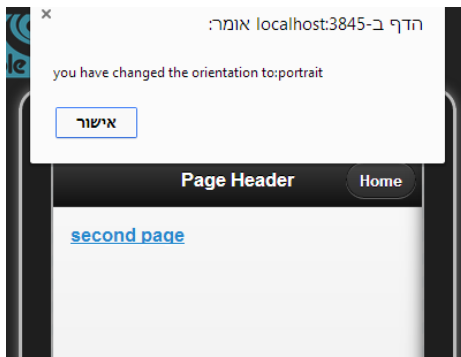
```
function wireEventsFirstpage() {  
  $('#firstpage').on('tap', function () {  
    alert('you have tapped the screen!');  
  });  
  $('#firstpage').on('taphold', function () {  
    alert('you have tapped and holded the screen!');  
  });  
  $('#firstpage').on('swipe', function () {  
    alert('you have swipped the screen!');  
  });  
  $('#firstpage').on('swiperight', function () {  
    alert('you have swipped the screen to the right!');  
  });  
}
```



Orientation Event

- You can catch the orientation change of the device through:
`$(window).on('orientationchange', function (e, o) {...` pay attention that the selected element is window not '#somepage'!
- `e.orientation` - the current\changed orientation

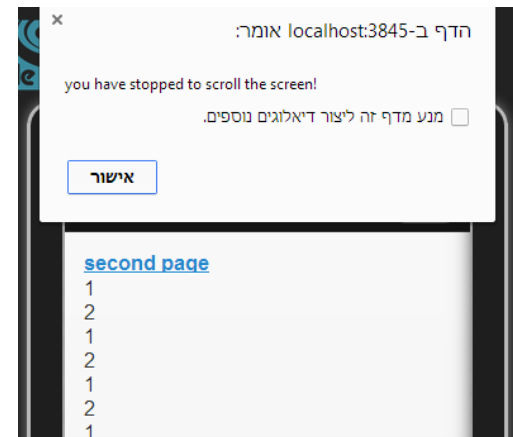
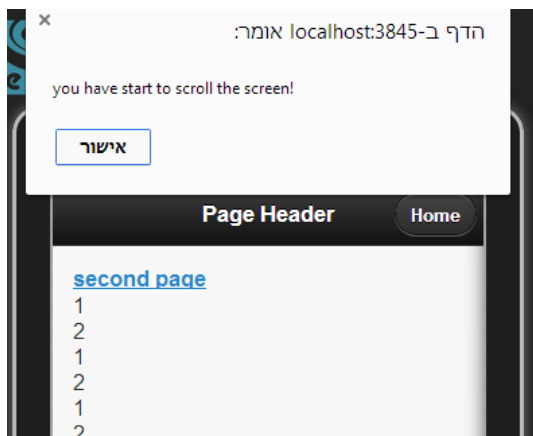
```
$(window).on('orientationchange', function (e, o) {  
    alert('you have changed the orientation to:' + e.orientation);  
});
```



Scroll Events

- scrollstart – when the scrolling starts. **Note:** iOS devices freeze DOM manipulation during scrolls, which means that it is not possible to change something when the user scrolls. However, the jQuery team are working on a solution for this. (from w3schools)
- Scrollstop – when the scrolling stops

```
//pay attention: after this event the DOM will not be updated!  
$('#firstpage').on('scrollstart', function () {  
    alert('you have start to scroll the screen!');  
});  
$('#firstpage').on('scrollstop', function () {  
    alert('you have stopped to scroll the screen!');  
});
```

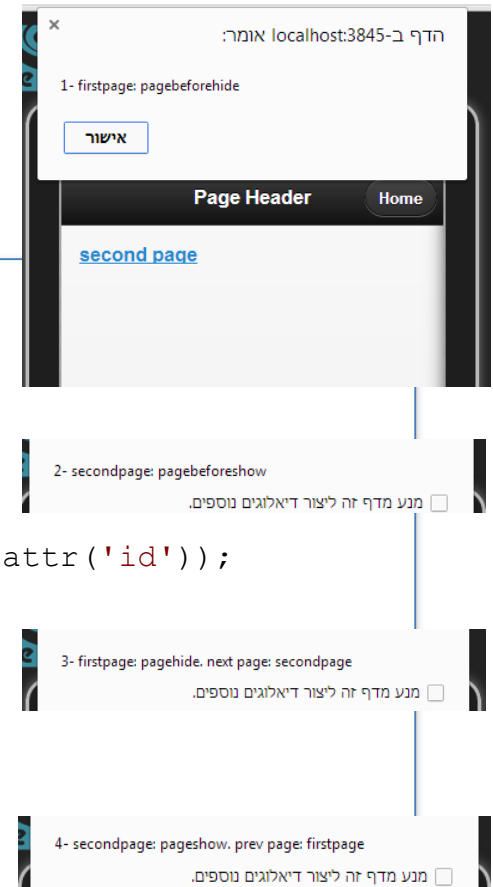


Transition Events

- When transition from page1 to page2 there are 4 events that triggers:

- Page1: pagebeforehide
- Page2: pagebeforeshow
- Page1: pagehide
- Page2: pageshow

```
function wireEventsFirstpage() {  
  // #1  
  $('#firstpage').on('pagebeforehide', function () {  
    alert('1- firstpage: pagebeforehide');  
  });  
  // #3  
  $('#firstpage').on('pagehide', function (event, ui) {  
    alert('3- firstpage: pagehide. next page: ' + ui.nextPage.attr('id'));  
  });  
}  
  
function wireEventsSecondpage() {  
  // #2  
  $('#secondpage').on('pagebeforeshow', function () {  
    alert('2- secondpage: pagebeforeshow');  
  });  
  // #4  
  $('#secondpage').on('pageshow', function (event, ui) {  
    alert('4- secondpage: pageshow. prev page: ' + ui.prevPage.attr('id'));  
  });  
}
```

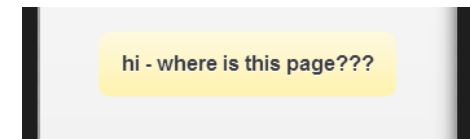
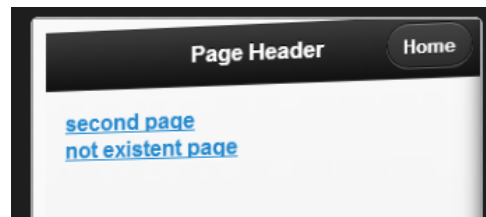
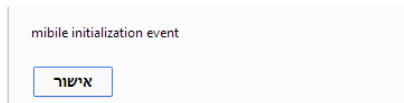


Default config – mobileinit event

- In order to change the defaults of the jqm mobile we need to script between the jq and the jqm script tags.
- We use the \$.mobile.someProperty = propertySettings

```
<script src="http://code.jquery.com/jquery-1.9.1.min.js" type="text/javascript"></script>
<script type="text/javascript">
    $(document).on('mobileinit', function () {
        alert('mibile initialization event');
        $.mobile.defaultPageTransition = "flip";
        $.mobile.pageLoadErrorMessage = "hi - where is this page???";
    });
</script>
<script src="http://code.jquery.com/mobile/1.3.2/jquery.mobile-1.3.2.min.js"
type="text/javascript"></script>

...
<a href="#secondpage">second page</a><br />
<a href="bla">not existent page</a>
```



Utility Functions - changePage

- There are some utility functions like
 - `$.mobile.changePage('toPage', { 'property': 'value' });`
 - `$.mobile.path.parseUrl('someUrl');`

```
$('#btn').on('tap', function () {  
    var obj = $.mobile.path.parseUrl('http://finance.walla.co.il/?m=1');  
    alert(obj.hostname);  
    alert(obj.domain);  
    $.mobile.changePage('#secondpage', { 'transition': 'flip' });  
});
```

