

Web and Mobile Application Development

jQuery Mobile

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What is jQuery Mobile?

- jQuery Mobile is an add-on to jQuery that is optimized for touch-enabled and mobile browsers.
 - Development began in 2010
- Just like with regular jQuery, we can include it either locally or by loading it from an external host:
 - Local: <http://jquerymobile.com/download/>
 - Google CDN:
<http://ajax.googleapis.com/ajax/libs/jquerymobile/1.4.5/jquery.mobile.min.js>
- To do its job jQuery Mobile also needs style sheets:
 - Google CDN:
<http://ajax.googleapis.com/ajax/libs/jquerymobile/1.4.5/jquery.mobile.min.css>

What is jQuery Mobile?

- NOTE: jQuery Mobile requires specific versions of jQuery to work properly.
- Check out the jQuery Mobile site for this information



jQuery mobile v1.4.5 needs
jQuery v1.8.x-1.11.x or v.2.1.x

What is jQuery Mobile?

- We need both jQuery and jQuery Mobile in order to use jQuery Mobile.
 - As well as the style sheets
- So we'll have:

```
<head>
```

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/2.1.1/jquery.min.js">  
</script>
```

```
<script src="http://ajax.googleapis.com/ajax/libs/jquerymobile/1.4.5/jquery.mobile.min.js">  
</script>
```

```
<link type="text/css" rel="stylesheet"  
      href="http://ajax.googleapis.com/ajax/libs/jquerymobile/1.4.5/jquery.mobile.min.css"/>
```

```
</head>
```

What is jQuery Mobile?

- How does jQuery Mobile work?
 - It parses your DOM to find **special attributes** and changes your tags accordingly.
- Before we get started one last thing as part of our set-up
- Put in the header, information about the initial window size and content scaling.
- We call this the *viewport* information

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

What is jQuery Mobile?

- Ok. Let's get started!
- What are some of the "special attributes"?
- `data-role`
 - This tells jQuery Mobile what the role of the element is so it can determine how to change it to render the way we want
 - Common values:
 - `header`, `footer`, `page`, `controlgroup`, `main`, `panel`, `table`
- `data-type`
 - This tells jQuery Mobile the expected type of data for the element so it can determine how to display its content.
- We'll explore just a few combinations of these for now

Headers and Footers

```
<div data-role="header">
```

- By putting the content of the header and footer within `<h1>` tags they became centered.
- Also note that the input and button elements auto resize to fit the space

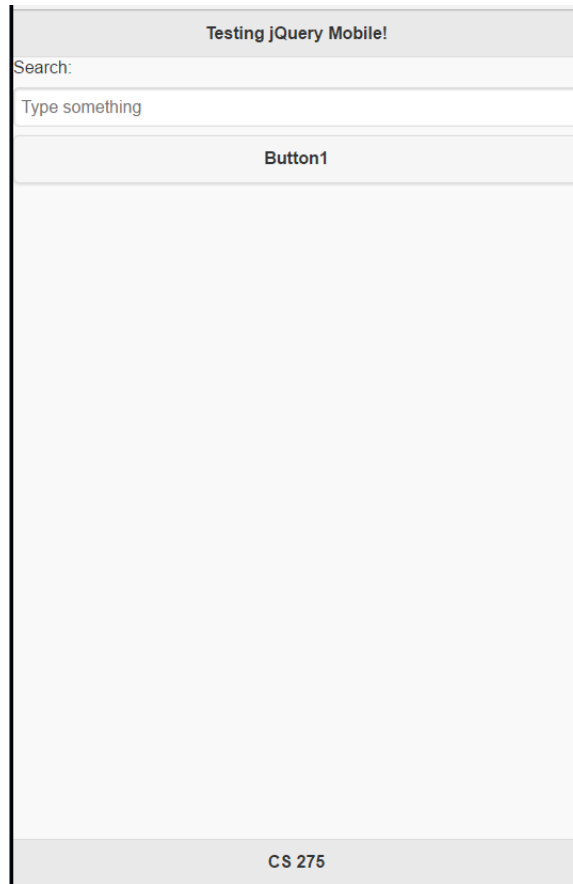
```
<div data-role="footer">
```



The screenshot shows a mobile application interface. At the top, there is a header bar with the text "Assignment 1". Below the header, there is a form with two input fields: "Enter Wunderground Key:" and "Enter your key". Below the input fields, there is a button labeled "Run!". At the bottom of the form, there is a footer bar with the text "CS 275". Two green arrows point from the code snippets in the text blocks to the corresponding header and footer bars in the screenshot.

Headers and Footers

- We may want these to have fixed locations (at the top and bottom, respectively)
- To do this we add the `data-position` attribute as `fixed`.



Control Groups

- By default jQuery Mobile will have each element take up the entire horizontal space.
- But we may want to group together elements.
- To do this we can set the `data-role` attribute of a `div` to `"controlgroup"` in combination with the `data-type` attribute being set to `"horizontal"`.

```
<div data-role="controlgroup" data-type="horizontal">  
<input type = button value=Button1>  
<input type = button value=Button2>  
</div>
```

Tables

- It would also be nice if jQuery Mobile could resize/reshape our tables to fit on our mobile devices.
- To do this we just add the `data-role="table"` attribute to our table element as well as the class `ui-responsive`:

```
<table data-role="table" class="ui-responsive">
```

- One caveat: We must write our table code in the format that wraps the table head in the `<thead>` tags and the body in the `<tbody>` tags.

```
<thead>
  <tr><th>Col1</th><th>Col2</th></tr>
</thead>
<tbody>
  <tr>
    ...
  </tbody>
```

References

- And so much more!
- We'll sprinkle a little more in here and there as we go through the course.
- But if you want to explore more on your own here's some resources:
 - <http://demos.jquerymobile.com/1.4.5/>
 - <https://www.w3schools.com/jquerymobile/>