PhoneGap & jQuery Mobile

Lesson 4



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Source Codes

https://github.com/makzan/PhoneGap-Course-Examples

jQuery Mobile

- Nav Bar
- Get Twitter Search JSON Results
- Show Location in Map

HTML5 Cheat Sheet App



Preparing jQuery Mobile

- as before, we prepare the jQuery Mobile boilerplate.
 - all jQuery Mobile assets.
 - our empty app.js and app.css file

In this section, we kick start the project with a main page.



```
<body>
   <!-- ////// Home -->
   <article data-role='page' id='main'>
     <header data-position='fixed' data-role='header'>
      <h1>Great Limited</h1>
     </header>
     <section data-role='content'>
      <h2>News</h2>
      <1i>)
          <a href='#news-detail'>News 1</a>
        </1i>
        <1i>)
          <a href='#news-detail'>News 2</a>
        <1i>)
          <a href='#news-detail'>News 3</a>
        </1i>
        <1i>i>
          <a href='#news-detail'>News 4</a>
        </1i>
      </section>
   </article>
```

</body>

the index.html body.

```
<body>
   <!-- ////// Home -->
   <article data-role='page' id='main'>
     <header data-position='fixed' data-role='header'>
      <h1>Great Limited</h1>
     </header>
     <section data-role='content'>
      <h2>News</h2>
      <1i>)
          <a href='#news-detail'>News 1</a>
        </1i>
        <1i>i>
          <a href='#news-detail'>News 2</a>
        </1i>
        <1i>)
          <a href='#news-detail'>News 3</a>
        </1i>
        <1i>)
          <a href=
```

</section>

</article>

</body>

Note that we used article, header, section, footer to meet the HTML5 spec.

```
<body>
   <!-- ////// Home -->
   <article data-role='page' id='main'>
    <header data-position='fixed' data-role='header'>
      <h1>Great Limited</h1>
    </header>
    <section data-role='content'>
      <h2>News</h2>
      <1i>)
         <a href='#news-detail'>News 1</a>
        <1i>)
         <a href='#news-detail'>News 2</a>
        </1i>
        <1i>)
         <a href='#news-detail'>News 3</a>
        <1i>)
         <a href
```

</section>

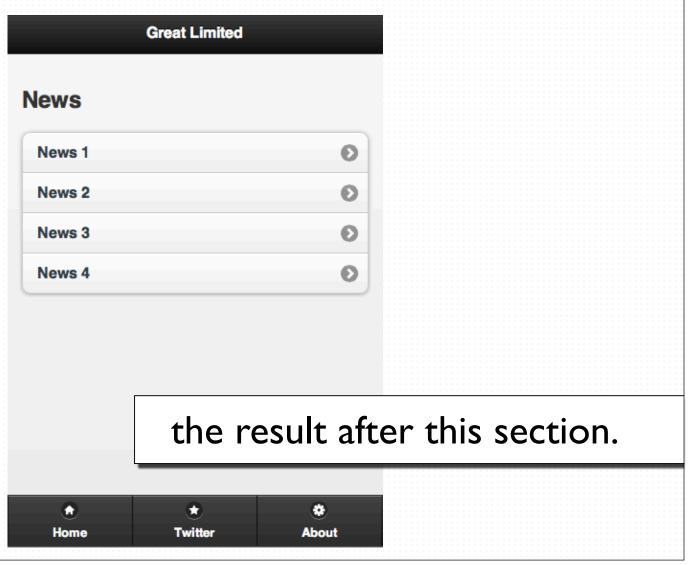
</article>

</body>

data-inset sets the list to have some margin on left and right edge.

Nothing special in last section.

In this section, we add a navigation bar at the bottom of the app.



```
<article data-role='page' id='main'>
 <header data-position='fixed' data-role='header'>
 </header>
 <section data-role='content'>
 </section>
 <footer data-id='footer' data-position='fixed' data-role='footer'>
   <div data-role='navbar'>
     <u1>
       <!i class='first-page'>
         <a data-icon='home' data-transition='none' href='#main'>Home</a>
       class='second-page'>
         <a data-icon='star' data-transition='none' href='#twitter'>Twitter</a>
       <a data-icon='gear' data-transition='none' href='#about'>About</a>
```

</div>

</footer>

</article>

The same #main element, with footer added.

```
<article data-role='page' id='main'>
 <header data-position='fixed' data-role='header'>
 </header>
 <section data-role='content'>
 </section>
 <footer data-id='footer' data-position='fixed' data-role='footer'>
   <div data-role='navbar'>
     <u1>
       <!i class='first-page'>
         <a data-icon='home' data-transition='none' href='#main'>Home</a>
       class='second-page'>
         <a data-icon='star' data-transition='none' href='#twitter'>Twitter</a>
       <a data-icon='gear' data-transition='none' href='#about'>About</a>
```

</div>

</footer>

</article>

footer role sticks to the bottom.

```
<article data-role='page' id='main'>
 <header data-position='fixed' data-role='header'>
 </header>
 <section data-role='content'>
 </section>
 <footer data-id='footer' data-position='fixed' data-role='footer'>
   <div data-role='navbar'>
     <u1>
       <!i class='first-page'>
         <a data-icon='home' data-transition='none' href='#main'>Home</a>
       class='second-page'>
         <a data-icon='star' data-transition='none' href='#twitter'>Twitter</a>
       <a data-icon='gear' data-transition='none' href='#about'>About</a>
```

</div>

</article>

we will share the same data-id across all footers in each page.

```
<article data-role='page' id='main'>
 <header data-position='fixed' data-role='header'>
 </header>
 <section data-role='content'>
 </section>
 <footer data-id='footer' data-position='fixed' data-role='footer'>
   <div data-role='navbar'>
     <u1>
       <!i class='first-page'>
         <a data-icon='home' data-transition='none' href='#main'>Home</a>
       class='second-page'>
         <a data-icon='star' data-transition='none' href='#twitter'>Twitter</a>
       <a data-icon='gear' data-transition='none' href='#about'>About</a>
```

</div>

</article>

insider the footer, we have the same navbar as last week.

```
<article data-role='page' id='main'>
 <header data-position='fixed' data-role='header'>
 </header>
 <section data-role='content'>
 </section>
 <footer data-id='footer' data-position='fixed' data-role='footer'>
   <div data-role='navbar'>
     <u1>
      <a data-icon='home' data-transition='none' href='#main'>Home</a>
      class='second-page'>
        <a data-icon='star' data-transition='none' href='#twitter'>Twitter</a>
      <a data-icon='gear' data-transition='none' href='#about'>About</a>
```

</div>

</article>

we added data-icon to each link so it looks like a native app's nav bar.

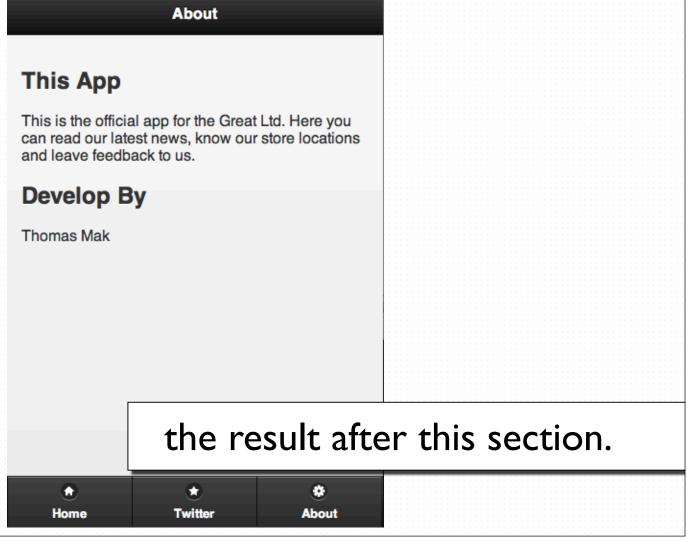
```
<article data-role='page' id='main'>
 <header data-position='fixed' data-role='header'>
 </header>
 <section data-role='content'>
 </section>
 <footer data-id='footer' data-position='fixed' data-role='footer'>
   <div data-role='navbar'>
     (ul>
      <a data-icon='home' data-transition='none' href='#main'>Home</a>
      class='second-page'>
        <a data-icon='star' data-transition='none' href='#twitter'>Twitter</a>
      <a data-icon='gear' data-transition='none' href='#about'>About</a>
```

</div>

</article>

and normally we do not have page transition when navigating between nav bar.

In this section, we will prepare several static pages so later we add logic into them.



```
<!-- ////// News Detail -->
<article data-role='page' id='news-detail'>
 <header data-position='fixed' data-role='header'>
   <h1>News Title</h1>
   <a data-icon='arrow-l' data-rel='back'>Home</a>
 </header>
 <section data-role='content'>
   News Content here
 </section>
 <footer data-id='footer' data-position='fixed' data-role='footer'>
   <div data-role='navbar'>
     (ul>
       <a data-icon='home' data-transition='none' href='#main'>Home</a>
       class='second-page'>
         <a data-icon='star' data-transition='none' href='#twitter'>Twitter</a>
       <a data-icon='gear' data-transition='none' href='#about'>About</a>
       </div>
```

</footer>

</article>

the news-detail page

```
<!-- /////// Twitter Page -->
<article data-role='page' id='twitter'>
 <header data-position='fixed' data-role='header'>
   <h1>Twitter</h1>
 </header>
 <section data-role='content'>
   <h2>Twitter Feeds</h2>
   </section>
 <footer data-id='footer' data-position='fixed' data-role='footer'>
   <div data-role='navbar'>
    (ul>
      <a data-icon='home' data-transition='none' href='#main'>Home</a>
      <a data-icon='star' data-transition='none' href='#twitter'>Twitter</a>
      <a data-icon='gear' data-transition='none' href='#about'>About</a>
      </div>
```

</footer>

</article>

the twitter page

```
<!-- /////// About Page -->
<article data-role='page' id='about'>
 <header data-position='fixed' data-role='header'>
   <h1>About</h1>
 </header>
 <section data-role='content'>
   <h2>This App</h2>
   >
     This is the official app for the Great Ltd. Here you can read our latest news, know ou
store locations and leave feedback to us.
   <h2>Develop By</h2>
   Thomas Mak
 </section>
 <footer data-id='footer' data-position='fixed' data-role='footer'>
   <div data-role='navbar'>
     (ul>
       <a data-icon='home' data-transition='none' href='#main'>Home</a>
       </1i>
       <|i class='second-name'>
         <a dat
                  The About page, the footer part is the same.
       class
         <a data-icon='gear' data-transition='none' href='#about'>About</a>
```

In last section, we created so many duplicated footer.

In this section, we will extract the footer into a template.

```
<!-- ////// News Detail -->
<article data-role='page' id='news-detail'>
 <header data-position='fixed' data-role='header'>
   <h1>News Title</h1>
   <a data-icon='arrow-l' data-rel='back'>Home</a>
 </header>
 <section data-role='content'>
   News Content here
 </section>
 <footer data-id='footer' data-position='fixed' data-role='footer'>
   <div data-role='navbar'>
     <u1>
       <a data-icon='home' data-transition='none' href='#main'>Home</a>
       class='second-page'>
        <a data-icon='star' data-transition='none' href='#twitter'>Twitter</a>
       <a data-icon='gear' data-transition='none' href='#about'>About</a>
```

</div>
</footer>

</article>

we are going to extract this whole footer tag

we delete all footer tag in each page. this is how the twitter page looks like now.

```
<!-- /////// Templates -->
<div class='footer-template'>
 <footer data-id='footer' data-position='fixed' data-role='footer'>
   <div data-role='navbar'>
     (ul>
      <a data-icon='home' data-transition='none' href='#main'>Home</a>
      class='second-page'>
        <a data-icon='star' data-transition='none' href='#twitter'>Twitter</a>
      <a data-icon='gear' data-transition='none' href='#about'>About</a>
      </div>
```

</footer>

</div>

the put the deleted footer tag inside an element named footer-template.

```
/***** Template *****/
.footer-template {
  display: none;
}
```

the footer-template is for logic use and is not intended to be shown. So we hide it.

```
(function(){
    // jQuery Ready
    $(function(){
        $("[data-role='page']").each(function() {
            var footer = $(".footer-template").html();
            $(this).append(footer);
            });

            $.mobile.initializePage();
        })
}).call(this);
```

let's move to the javascript logic. we append the footer content to each page.

```
(function(){

   // jQuery Ready
   $(function(){
        $("[data-role='page']").each(function() {
        var footer = $(".footer-template").html();
        $(this).append(footer);
        });

        $.mobile.initializePage();
    })

}).call(this);
```

the [data-role='page'] attribute selector selects all the jQuery Mobile pages.

```
(function(){

   // jQuery Ready
   $(function(){
       $("[data-role='page']").each(function() {
           var footer = $(".footer-template").html();
           $(this).append(footer);
        });

       $.mobile.initializePage();
    })

}).call(this);
```

and we get the same HTML content of footer.

```
(function(){

   // jQuery Ready
   $(function(){
      $("[data-role='page']").each(function() {
       var footer = $(".footer-template").html();
       $(this).append(footer);
       });

   $.mobile.initializePage();
})
```

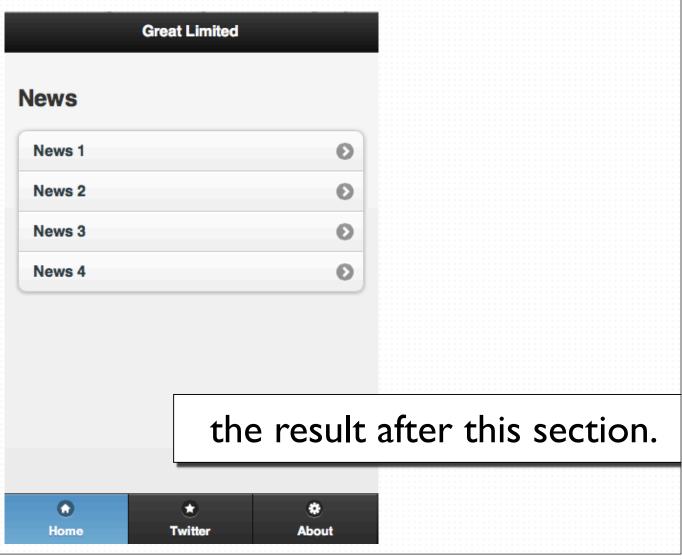
finally we tell jQuery Mobile to initialize the page so it renders the footer element into jQuery Mobile style.

one more thing, we tell jQuery mobile that we do not need the auto initialization because we are doing it ourselves.

Nav Bar Active State

In this section, we will set the active state of the footer element.

Nav Bar Active State



Nav Bar Active State

```
// append footer to each page
$("[data-role='page']").each(function() {
  var footer = $(".footer-template").html();
  $(this).append(footer);

// footer active state
  var target = 'footer .first-page a';
  if ($(this).attr('id') === 'twitter') {
    target = 'footer .second-page a';
  } else if ($(this).attr('id') === 'about') {
    target = 'footer .third-page a';
  }

$(this).find(target).addClass('ui-state-persist').addClass('ui-btn-active');
};
```

on each footer, we define the active classes.

Nav Bar Active State

```
// append footer to each page
$("[data-role='page']").each(function() {
   var footer = $(".footer-template").html();
   $(this).append(footer);

// footer active state
   var target = 'footer .first-page a';
   if ($(this).attr('id') === 'twitter') {
      target = 'footer .second-page a';
   } else if ($(this).attr('id') === 'about') {
      target = 'footer .third-page a';
   }

   $(this).find(target).addClass('ui-state-persist').addClass('ui-btn-active');
});
```

the ui-btn-active class highlight the link as active state.

Nav Bar Active State

```
// append footer to each page
$("[data-role='page']").each(function() {
  var footer = $(".footer-template").html();
  $(this).append(footer);

// footer active state
  var target = 'footer .first-page a';
  if ($(this).attr('id') === 'twitter') {
    target = 'footer .second-page a';
  } else if ($(this).attr('id') === 'about') {
    target = 'footer .third-page a';
  }

$(this).find(target).addClass('ui-state-persist').addClass('ui-btn-active');
});
```

the ui-state-persist makes surethe active state persist.

We are making an app for the company. Most likely we would like to show the company's related tweets.

In this section, we will search the Twitter with the query string "Great Limited" and display the JSON result into listview.



```
<!-- /////// Twitter Page -->
<article data-role='page' id='twitter'>
    <header data-position='fixed' data-role='header'>
        <h1>Twitter</h1>
        <header>
        <section data-role='content'>
              <h2>Twitter Feeds</h2>

                data-inset='true' data-role='listview' id='tweet-list'>
                </section>
</article>
```

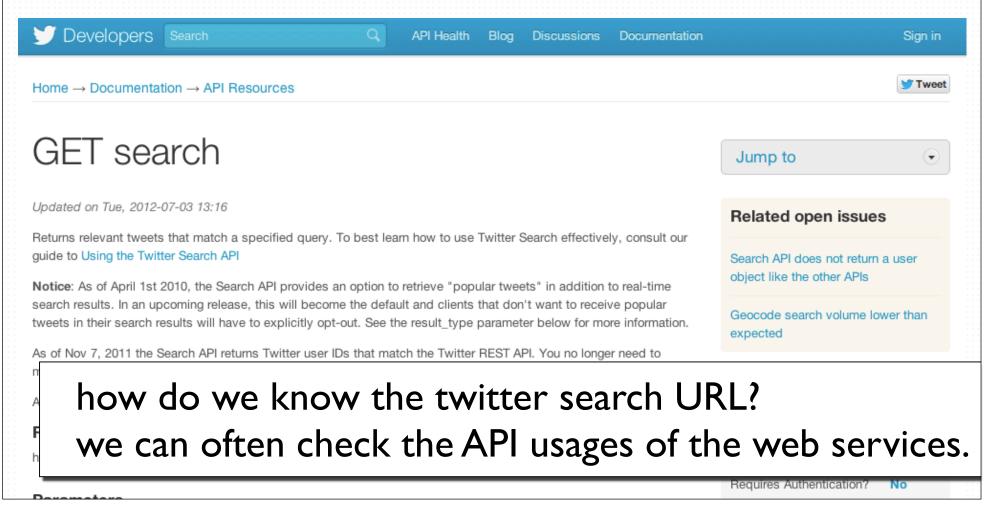
the major part is the listview with id #tweet-list

```
var TwitterQuery = (function(){
 function TwitterQuery(query) {
    this.query = query;
    this.twitterURL = "http://search.twitter.com/search.json?q=" + this.query +
"%rpp=10%callback=?";
 TwitterQuery.prototype.fetch = function(element) {
    $.qetJSON(this.twitterURL, function(data) {
      $(element).empty();
     for (var i=0, len=data.results.length; i < len; i++) {
        var tweet = data.results[i];
        $(element).append("<imq src='images/empty.png' style='background-image:url(" +</pre>
tweet.profile image url + ")'><h1>" + tweet.from user + "</h1> " + tweet.text + " </
li>");
     $(element).listview('refresh');
   });
 return TwitterQueru;
})();
```

TwitterQuery Class

```
var TwitterQuery = (function(){
 function TwitterQuery(query) {
   this.query = query;
   this.twitterURL = "http://search.twitter.com/search.json?q=" + this.queru +
"&rpp=10&callback=?";
 TwitterQuery.prototype.fetch = function(element) {
    $.getJSON(this.twitterURL, function(data) {
     $(element).empty();
     for (var i=0, len=data.results.length; i < len; i++) {
       var tweet = data.results[i];
       $(element).append("<imq src='images/empty.png' style='background-image:url(" +</pre>
tweet.profile image url + ")'><h1>" + tweet.from user + "</h1> " + tweet.text + " </
li>");
     $(element).listview('refresh');
   });
                        constructor with twitter search query.
 return TwitterQueru:
})();
```

https://dev.twitter.com/docs/api/1/get/search



Getting Started

Core Concepts

Social Design

Social Plugins

Social Channels

Open Graph

Dialogs

Authentication

Graph API

Advanced Topics

SDK Reference

Concepts

Batch Requests Permissions

Real-time Updates

Objects

Achievement(Instance)

Graph API

Core Concepts > Graph API

At Facebook's core is the social graph; people and the connections they have to everything they care about. The Graph API presents a simple, consistent view of the Facebook social graph, uniformly representing objects in the graph (e.g., people, photos, events, and pages) and the connections between them (e.g., friend relationships, shared content, and photo tags).

Every object in the social graph has a unique ID. You can access the properties of an object by requesting https://graph.facebook.com/ID. For example, the official page for the Facebook Platform has id 19292868552, so you can fetch the object at https://graph.facebook.com/19292868552:

```
"name": "Facebook Platform",
    "website": "http://developers.facebook.com",
    "username": "platform",
    "founded": "May 2007",
    "company_overview": "Facebook Platform enables anyone to build...",
    "mission": "To make the web more open and social.",
    "products": "Facebook Application Programming Interface (API)...",
    "likes": 449921,
    "id": 19292868552,
    "category": "Technology"
}
```

Alternatively, people and pages with usernames can be accessed using their username as an ID. Since "platform" is the username for the page above, https://graph.facebook.com/platform will return what you expect. All responses are JSON

foursquare DEVELOPERS

My Apps Overview Endpoints Forum

Overview

Tutorial & Samples

Connecting

Responses & Errors

Versioning & Internationalization

Attribution

Rate Limits

Policies

Apps Platform

Merchant Platform

Venues Platform

Documentation

API Endpoints

Explorer

Real-Time API

API Endpoints

The foursquare API provides methods for accessing a resource such as a venue, tip, or user, at a canonical URL. For example, information about Clinton Street Baking Co can be found at

https://api.foursquare.com/v2/venues/40a55d80f964a52020f31ee3?oauth token=XXX&v=YYYYMMDD.

Given a resource, you can then drill into a particular aspect, for example

https://api.foursquare.com/v2/venues/40a55d80f964a52020f31ee3/tips?

oauth token=XXX&v=YYYYMMDD. Each returned tip will have its own ID, which corresponds to a resource URL, for example https://api.foursquare.com/v2/tips/49f083e770c603bbe81f8eb4? oauth token=XXX&v=YYYYMMDD.

A given resource also has a series of actions associated with it. For example, by calling

https://api.foursquare.com/v2/users/1/friend with POST and an oauth_token, you can add this user as a friend.

As covered in our platform docs, our Venues Platform endpoints can be accessed without user authentication and our Merchant Platform endpoints require the end-user to be an authed venue manager. All other endpoints, unless otherwise noted, require user authentication.

Filter by All · Core API · Venues Platform · Merchant Platform

	General	Aspects	Actions
users	leaderboard	badges	approve
	requests	checkins	deny
	search	friends	request

```
var TwitterQuery = (function(){
 function TwitterQuery(query) {
    this.query = query;
    this.twitterURL = "http://search.twitter.com/search.json?q=" + this.query +
"%rpp=10%callback=?";
  TwitterQuery.prototype.fetch = function(element) {
    $.qetJSON(this.twitterURL, function(data) {
      $(element).empty();
     for (var i=0, len=data.results.length; i < len; i++) {
       var tweet = data.results[i];
        $(element).append("<imq src='images/empty.png' style='background-image:url(" +</pre>
tweet.profile image url + ")'><h1>" + tweet.from user + "</h1> " + tweet.text + " </
1i>");
     $(element).listview('refresh');
    });
```

return TwitterQuery;
})();

fetch method fetches the tweets and display it inside the given element.

```
var TwitterQuery = (function(){
 function TwitterQuery(query) {
    this.query = query;
    this.twitterURL = "http://search.twitter.com/search.json?q=" + this.query +
"%rpp=10%callback=?";
 TwitterQuery.prototype.fetch = function(element) {
    $.qetJSON(this.twitterURL, function(data) {
      $(element).empty();
     for (var i=0, len=data.results.length; i < len; i++) {
        var tweet = data.results[i];
        $(element).append("<imq src='images/empty.png' style='background-image:url(" +</pre>
tweet.profile image url + ")'><h1>" + tweet.from user + "</h1> " + tweet.text + " </
li>");
     $(element).listview('refresh');
   });
 return TwitterQueru;
```

})();

getJSON or ajax call from jQuery

```
var TwitterQuery = (function(){
 function TwitterQuery(query) {
    this.query = query;
    this.twitterURL = "http://search.twitter.com/search.json?q=" + this.query +
"%rpp=10&callback=?";
 TwitterQuery.prototype.fetch = function(element) {
    $.qetJSON(this.twitterURL, function(data) {
      $(element).empty();
     for (var i=0, len=data.results.length; i < len; i++) {
        var tweet = data.results[i];
        $(element).append("<imq src='images/empty.png' style='background-image:url(" +</pre>
tweet.profile image url + ")'><h1>" + tweet.from user + "</h1> " + tweet.text + " </
li>");
     $(element).listview('refresh');
   });
 return TwitterQueru;
```

})();

the tweets are inside data.results array

```
var TwitterQuery = (function(){
 function TwitterQuery(query) {
   this.query = query;
    this.twitterURL = "http://search.twitter.com/search.json?q=" + this.query +
"%rpp=10%callback=?";
 TwitterQuery.prototype.fetch = function(element) {
    $.qetJSON(this.twitterURL, function(data) {
     $(element).empty();
     for (var i=0, len=data.results.length; i < len; i++) {
       var tweet = data.results[i];
       $(element).append("<img src='images/empty.png' style='background-image:url(" +</pre>
tweet.profile image url + ")'><h1>" + tweet.from user + "</h1> " + tweet.text + " </
1i>");
     $(element).listview('refresh');
   });
                         append the tweet information as listview.
 return TwitterQueru;
```

})();

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```
var TwitterQuery = (function(){
 function TwitterQuery(query) {
    this.query = query;
    this.twitterURL = "http://search.twitter.com/search.json?q=" + this.query +
"%rpp=10%callback=?";
 TwitterQuery.prototype.fetch = function(element) {
    $.qetJSON(this.twitterURL, function(data) {
      $(element).empty();
     for (var i=0, len=data.results.length; i < len; i++) {
        var tweet = data.results[i]:
        $(element).append("<imq src='images/empty.png' style='background-image:url(" +</pre>
tweet.profile image url + ")'><h1>" + tweet.from user + "</h1> " + tweet.text + " </
li>");
     $(element).listview('refresh');
   });
```

return TwitterQueru;

})();

finally we refresh the listview.

```
// Twitter Query Module
(function() {
  var TwitterQuery = (function(){
    // our Twitter Query class implementation.
  })();

// export the TwitterQuery to global scope
if (!this.greatLtd) this.greatLtd = {}
  this.greatLtd.TwitterQuery = TwitterQuery;

}).call(this);
```

since this is quite independent to the other logics, we would like to put the class as an individual module.

```
// inside jQuery ready function
// listen to the pageBeforeShow event
$(document).bind('pagebeforeshow', function(event, ui) {
  if ($(event.target).attr('id') === 'twitter') {
    twitter = new greatLtd.TwitterQuery("Great Limited");
    twitter.fetch($("#tweet-list"));
  }
});
```

we need to call the TwitterQuery class. we call it on every time the twitter page shows.

```
// inside jQuery ready function
// listen to the pageBeforeShow event
$(document).bind('pagebeforeshow', function(event, ui) {
  if ($(event.target).attr('id') === 'twitter') {
    twitter = new greatLtd.TwitterQuery("Great Limited");
    twitter.fetch($("#tweet-list"));
  }
});
```

the pagebeforeshow event is fired before the page is show.

pagebeforeshow - called before the next page shows

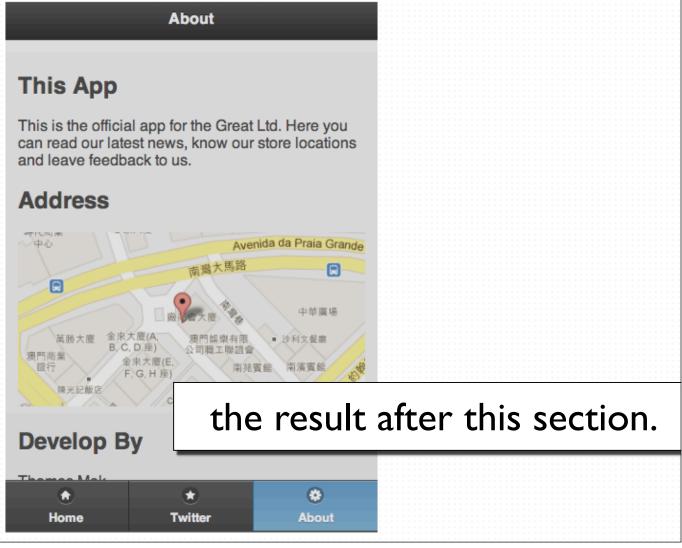
pageshow - called after the next page finished in transitions and shows.

pagebeforehide - called before the current page hides

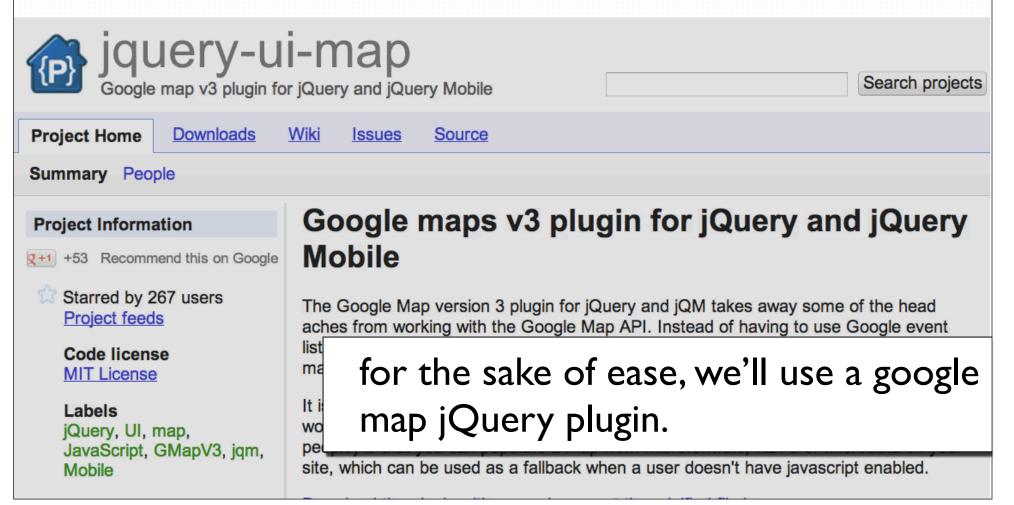
pagehide - called after the current page finished out transitions and hided.

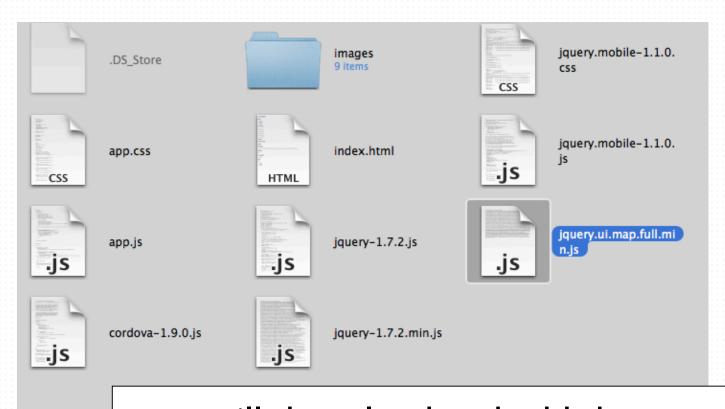
we have several more events.

In this section, we will how the company location in a map inside the about page.



http://code.google.com/p/jquery-ui-map/





we will download and add the jquery.ui.map.full.min.js file to our project.

let's add a map page to the index.html

the empty #map element is the hook that we are going to apply the map there.

```
$('#map').gmap('addMarker', {'position': '57.7973333,12.0502107', 'bounds': true})
```

we are going to use the above code to apply the google map to the #map element.

we need a link to the map page, let's add it into our About page.



the map.png is a static image file of the location snapshot.

```
<script src='http://maps.google.com/maps/api/js?sensor=true'
<script src='jquery.ui.map.full.min.js'></script>
```

let's also include the map related javascript files before our app.js

<script src='http://maps.google.com/maps/api/js?sensor=true'
<script src='jquery.ui.map.full.min.js'></script>

note that we included the google map official javascript API.

```
// listen to the pageBeforeShow event
$(document).bind('pagebeforeshow', function(event, ui) {
   if ($(event.target).attr('id') === 'twitter') {
      twitter = new greatLtd.TwitterQuery("Great Limited");
      twitter.fetch($("#tweet-list"));
} else if ($(event.target).attr('id') === 'map-page') {
      $('#map').gmap('addMarker', {
            'position': '22.192362,113.54206',
            'bounds': true
      });
}
});
}
```

now we apply the google map to the #ma element when the map-page shows.

```
// listen to the pageBeforeShow event
$(document).bind('pagebeforeshow', function(event, ui) {
   if ($(event.target).attr('id') === 'twitter') {
      twitter = new greatLtd.TwitterQuery("Great Limited");
      twitter.fetch($("#tweet-list"));
   } else if ($(event.target).attr('id') === 'map-page') {
      $('#map').gmap('addMarker', {
            'position': '22.192362,113.54206',
            'bounds': true
      });
   }
});
```

the position is where we are now. the bounds tells the google map to display the area of current position.

```
/***** Map View ****/
#about img {
    width: 100%;
}

#map {
    width: 100%;
    height: 400px;
}
```

before we test the app, we need some styles to define the dimension of the map.

