Social Media Apps Programming

Create Hybrid Apps with Phonegap

1071SMAP07
TLMXM1A (8550) (M2143) (Fall 2018)
(MIS MBA) (2 Credits, Elective) [Full English Course]
Thu 8,9 (10:10-12:00) B206

Min-Yuh Day, Ph.D.
Assistant Professor
Department of Information Management
Tamkang University

http://mail.tku.edu.tw/myday

2018-10-25
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Subject/Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2018/09/13</td>
<td>Course Orientation and Introduction to Social Media and Mobile Apps Programming</td>
</tr>
<tr>
<td>2</td>
<td>2018/09/20</td>
<td>Introduction to Android / iOS Apps Programming</td>
</tr>
<tr>
<td>3</td>
<td>2018/09/27</td>
<td>Developing Android Native Apps with Java (Android Studio)</td>
</tr>
<tr>
<td>4</td>
<td>2018/10/04</td>
<td>Developing iPhone / iPad Native Apps with Swift (XCode)</td>
</tr>
<tr>
<td>5</td>
<td>2018/10/11</td>
<td>Mobile Apps using HTML5/CSS3/JavaScript</td>
</tr>
<tr>
<td>6</td>
<td>2018/10/18</td>
<td>jQuery Mobile</td>
</tr>
<tr>
<td>7</td>
<td>2018/10/25</td>
<td>Create Hybrid Apps with Phonegap</td>
</tr>
<tr>
<td>8</td>
<td>2018/11/01</td>
<td>jQuery Mobile/Phonegap</td>
</tr>
<tr>
<td>9</td>
<td>2018/11/08</td>
<td>jQuery Mobile/Phonegap</td>
</tr>
<tr>
<td>Week</td>
<td>Date</td>
<td>Subject/Topics</td>
</tr>
<tr>
<td>------</td>
<td>--------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>10</td>
<td>2018/11/15</td>
<td>Midterm Exam Week / Project Presentation</td>
</tr>
<tr>
<td>11</td>
<td>2018/11/22</td>
<td>Case Study on Social Media Apps Programming and Marketing in Google Play and App Store</td>
</tr>
<tr>
<td>12</td>
<td>2018/11/29</td>
<td>Google Cloud Platform</td>
</tr>
<tr>
<td>13</td>
<td>2018/12/06</td>
<td>Google App Engine</td>
</tr>
<tr>
<td>14</td>
<td>2018/12/13</td>
<td>Google Map API</td>
</tr>
<tr>
<td>15</td>
<td>2018/12/20</td>
<td>Facebook API (Facebook JavaScript SDK) (Integrate Facebook with iOS/Android Apps)</td>
</tr>
<tr>
<td>16</td>
<td>2018/12/27</td>
<td>Twitter API</td>
</tr>
<tr>
<td>17</td>
<td>2019/01/03</td>
<td>Final Project Presentation</td>
</tr>
<tr>
<td>18</td>
<td>2019/01/10</td>
<td>Final Exam Week / Final Project Presentation</td>
</tr>
</tbody>
</table>
Android /iOS Apps Programming

- Native Apps
- Hybrid Apps
- Mobile Web Apps
App Development Comparison

<table>
<thead>
<tr>
<th></th>
<th>Device Access</th>
<th>Speed</th>
<th>Development Cost</th>
<th>App Store</th>
<th>Approval Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native Apps</td>
<td>Full</td>
<td>Very Fast</td>
<td>Expensive</td>
<td>Available</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Hybrid Apps</td>
<td>Full</td>
<td>Native Speed as Necessary</td>
<td>Reasonable</td>
<td>Available</td>
<td>Low Overhead</td>
</tr>
<tr>
<td>Web Apps</td>
<td>Partial</td>
<td>Fast</td>
<td>Reasonable</td>
<td>Not Available</td>
<td>None</td>
</tr>
</tbody>
</table>

Zainul Setyo Pamungkas,
PhoneGap 4 Mobile Application Development Cookbook,
Packt Publishing, 2015

Source: https://www.amazon.com/PhoneGap-Mobile-Application-Development-Cookbook/dp/1783287942
Kerri Shotts,
Mastering PhoneGap Mobile Application Development,

Source: https://www.amazon.com/Mastering-PhoneGap-Mobile-Application-Development/dp/1783288434
Mobile Web App

- HTML
- CSS
- JavaScript
- Templates
- Phone Data
- External Data
- Mobile frameworks and Libraries

Source: Scott Preston, Learn HTML5 and JavaScript for iOS: Web Standards-based Apps for iPhone, iPad, and iPod touch, Apress, 2012
PhoneGap

• PhoneGap is a free and open source framework that allows you to create mobile apps using standardized web APIs for the platforms you care about.

Source: [http://phonegap.com/](http://phonegap.com/)
PhoneGap

http://phonegap.com/

Build amazing mobile apps powered by open web tech.

START NOW    LEARN MORE

Create your app with PhoneGap

Reuse existing web development skills to quickly make hybrid applications built with HTML, CSS and JavaScript. Create experiences for multiple platforms with a single codebase so you can reach your audience no matter what device they're on.

Package your app in the cloud

PhoneGap Build takes the pain out of compiling PhoneGap apps. Get app-store ready apps without the headache of maintaining native SDKs. Our PhoneGap Build service does the work for you by compiling in the cloud.
PhoneGap Build

• Package mobile apps in the cloud
  – PhoneGap Build takes the pain out of compiling PhoneGap apps.
  – Get app-store ready apps without the headache of maintaining native SDKs.
  – PhoneGap Build service does the work for you by compiling in the cloud.

Source: http://phonegap.com/
PhoneGap Build

Source: https://build.phonegap.com/
Apps Created with PhoneGap

Source: http://phonegap.com/
Apps Created with PhoneGap

BBC Olympics

Source: http://phonegap.com/app/bbc-olympics/
Adobe® PhoneGap™

• Write a PhoneGap app once with HTML and JavaScript and deploy it to any mobile device without losing features of a native app.

• Adobe PhoneGap
  – standards-based, open-source development framework for building cross-platform mobile apps with HTML, CSS and JavaScript for iOS, Android™, Windows® Phone, webOS, BlackBerry® and more.

https://build.phonegap.com/
PhoneGap

Easily create apps using the web technologies you know and love: HTML, CSS, and JavaScript

PhoneGap is a free and open source framework that allows you to create mobile apps using standardized web APIs for the platforms you care about.

Install PhoneGap  
Getting Started Guides
PhoneGap Build

Package mobile apps in the cloud

PhoneGap Build takes the pain out of compiling PhoneGap apps. Get app-store ready apps without the headache of maintaining native SDKs. Our PhoneGap Build service does the work for you by compiling in the cloud.

http://phonegap.com/
PhoneGap Build

Choose your plan

<table>
<thead>
<tr>
<th>Free Plan</th>
<th>Paid Plan</th>
<th>Adobe Creative Cloud Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>open source apps</td>
<td>∞ unlimited must be pulled from a public Github repo</td>
<td></td>
</tr>
<tr>
<td>collaborators</td>
<td>∞ unlimited invite people to your app as either developers or testers</td>
<td></td>
</tr>
<tr>
<td>private apps</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>completely free</th>
<th>starting at $9.99/mo</th>
<th>sign in with your Adobe ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>free</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

http://phonegap.com/
PhoneGap Build

Adobe® PhoneGap™ Build
Package mobile apps in the cloud.

Get started!

Take the pain out of developing mobile apps.
Simply upload your HTML5, CSS, and JavaScript assets to the Adobe® PhoneGap™ Build cloud service and we do the work of compiling for you.

https://build.phonegap.com/
Get started with PhoneGap Build

• Simply **upload** your web assets - a ZIP file of HTML, CSS and JavaScript, or a single **index.html** file - to PhoneGap Build
  – Git or SVN repository.
• PhoneGap Build undertake the compilation and packaging
• In minutes, you’ll receive the download URLs for all mobile platforms.

Source: [https://build.phonegap.com/faq](https://build.phonegap.com/faq)
PhoneGap Build vs. PhoneGap

• PhoneGap
  – a mobile application development framework, based upon the open source Apache Cordova project.
  – write an app once with HTML, CSS and JavaScript, and then deploy it to a wide range of mobile devices without losing the features of a native app.

• PhoneGap Build
  – a cloud-based service built on top of the PhoneGap framework.
  – easily build those same mobile apps in the cloud.

Source: https://build.phonegap.com/faq
Public Apps vs. Private Apps

• Public apps
  – source code hosted in a publicly accessible GitHub repository.

• Private apps
  – source code hosted in a private (non-publicly accessible) GitHub repository
  – uploads a ZIP file containing the source code and assets to the PhoneGap Build service.
PhoneGap, jQuery Mobile, jQuery

PhoneGap
(Hardware Interface)

jQuery Mobile
(User Interface)

jQuery
(Logic and Computing)
PhoneGap App Architecture

HTML5/CSS3 Application

UI Framework (jQueryMobile)

PhoneGap API

Phone Gap Bridge

Camera
Microphone
GPS
SQLite
File System
Accelerometer
Compass
etc

Install PhoneGap

To Install, ensure that you have NodeJS installed, then open your commandline and run the following:

```bash
$ sudo npm install -g phonegap
```

Once installation completes, you can invoke `phonegap` on command line for further help.

Usage:

```bash
$ phonegap create my-app
$ cd my-app
$ phonegap run android
```

Learn more at docs.phonegap.com

PhoneGap 2.9.1
Released 05 Nov 2013

PhoneGap 2.9.0
Released 26 Jun 2013

PhoneGap 2.8.1
Released 12 Jun 2013

http://phonegap.com/install/
Node.js is a platform built on Chrome's JavaScript runtime for easily building fast, scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

Current Version: v0.10.33

[INSTALL]

http://nodejs.org/
Install NodeJS

This package will install node and npm into /usr/local/bin

Node was installed at
/usr/local/bin/node
npm was installed at
/usr/local/bin/npm

Make sure that /usr/local/bin is in your PATH.
PhoneGap API Documentation

http://docs.phonegap.com/en/3.5.0/index.html
PhoneGap Install

$ sudo npm install -g phonegap
$ phonegap create myapp
[phonegap] missing library phonegap/www/3.1.0
[phonegap] downloading
https://github.com/phonegap/phonegap-app-hello-world/archive/3.1.0.tar.gz...
[phonegap] created project at
/Users/imyday/Development/myapp

$ cd myapp

$ phonegap run android
[phonegap] detecting Android SDK environment...
[phonegap] using the remote environment
[phonegap] compressing the app...
[phonegap] uploading the app...
myapp/www/

- config.xml
- css
  - index.css
  - icon.png
- img
  - logo.png
  - index.html
- js
  - index.js
- res
  - icon
  - screen
- spec
  - spec.html
PhoneGap config.xml
<xml version="1.0" encoding="utf-8"/>
<widget id="com.phonegap.helloworld" xmlns="http://www.w3.org/ns/widgets" xmlns:gap="http://phonegap.com/ns/1.0">
  <name>HelloWorld</name>
  <description>Hello World sample application that responds to the deviceready event.</description>
  <author email="support@phonegap.com" href="http://phonegap.com">
    PhoneGap Team
  </author>
  <feature name="http://api.phonegap.com/1.0/device"/>
  <preference name="permissions" value="none"/>
  <preference name="orientation" value="default"/>
  <preference name="target-device" value="universal"/>
  <preference name="fullscreen" value="true"/>
  <preference name="webview-deviceorientation" value="true"/>
  <preference name="prerendered-icon" value="true"/>
  <preference name="stay-in-webview" value="false"/>
  <preference name="ios-statusbarstyle" value="black-opaque"/>
  <preference name="deviceorientation-screen" value="true"/>
  <preference name="disable-spinner" value="false"/>
  <preference name="android-minSdkVersion" value="7"/>
  <preference name="android-installLocation" value="auto"/>
  <icon src="icon.png"/>
  <icon gap:density="ldpi" gap:platform="android" src="res/icon/android/icon-36-ldpi.png"/>
  <icon gap:density="mdpi" gap:platform="android" src="res/icon/android/icon-48-mdpi.png"/>
  <icon gap:density="hdpi" gap:platform="android" src="res/icon/android/icon-72-hdpi.png"/>
  <icon gap:density="xdpi" gap:platform="android" src="res/icon/android/icon-96-xhdpi.png"/>
  <icon gap:platform="blackberry" src="res/icon/blackberry/icon-80.png"/>
  <icon gap:platform="ios" gap:state="hover" src="res/icon/blackberry/icon-80.png" gap:height="57" gap:width="57"/>
  <icon gap:platform="ios" gap:height="72" gap:width="72"/>
  <icon gap:platform="ios" gap:height="114" gap:width="114"/>
  <icon gap:platform="ios" gap:height="144" gap:width="144"/>
  <icon gap:platform="weboos" src="res/icon/weboos/icon-64.png"/>
  <icon gap:platform="winphone" gap:roles="background" src="res/icon/windows-phone/icon-48.png"/>
  <icon gap:platform="winphone" gap:roles="background" src="res/icon/windows-phone/icon-173.png"/>
  </widget>
<?xml version='1.0' encoding='utf-8'?>
<widget
    id="com.phonegap.helloworld"
    version="1.0.0"
    xmlns="http://www.w3.org/ns/widgets"
    xmlns:gap="http://phonegap.com/ns/1.0">
  <name>HelloWorld</name>
  <description>Hello World sample application</description>
  <author email="support@phonegap.com" href="http://phonegap.com">
    PhoneGap Team
  </author>
  <feature name="http://api.phonegap.com/1.0/device" />
  <preference name="permissions" value="none" />
  <icon src="icon.png" />
</widget>
<feature name="http://api.phonegap.com/1.0/device" />
<preference name="permissions" value="none" />
<preference name="orientation" value="default" />
<preference name="target-device" value="universal" />
<preference name="fullscreen" value="true" />
<preference name="webviewbounce" value="true" />
<preference name="prerendered-icon" value="true" />
<preference name="stay-in-webview" value="false" />
<preference name="ios-statusbarstyle" value="black-opaque" />
<preference name="detect-data-types" value="true" />
<preference name="exit-on-suspend" value="false" />
<preference name="show-splash-screen-spinner" value="true" />
<preference name="auto-hide-splash-screen" value="true" />
<preference name="disable-cursor" value="false" />
<preference name="android-minSdkVersion" value="7" />
<preference name="android-installLocation" value="auto" />
<icon src="icon.png" />
<gap:splash gap:density="ldpi" gap:platform="android"
src="res/screen/android/screen-ldpi-portrait.png" />
<gap:splash gap:density="mdpi" gap:platform="android"
src="res/screen/android/screen-mdpi-portrait.png" />
<gap:splash gap:density="hdpi" gap:platform="android"
src="res/screen/android/screen-hdpi-portrait.png" />
<gap:splash gap:density="xhdpi" gap:platform="android"
src="res/screen/android/screen-xhdpi-portrait.png" />
<gap:splash gap:platform="blackberry"
src="res/screen/blackberry/screen-225.png" />
<gap:splash gap:platform="ios" height="480"
src="res/screen/ios/screen-iphone-portrait.png"
width="320" />
<gap:splash gap:platform="ios" height="960"
src="res/screen/ios/screen-iphone-portrait-2x.png" width="640" />
<gap:splash gap:platform="ios" height="1024"
src="res/screen/ios/screen-ipad-portrait.png" width="768" />
<gap:splash gap:platform="ios" height="768"
src="res/screen/ios/screen-ipad-landscape.png" width="1024" />
<gap:splash gap:platform="winphone" src="res/screen/windows-phone/screen-portrait.jpg" />
<access origin="http://127.0.0.1*" />

icon.png
(128x128)

<icon src="icon.png" />
logo.png

(172x200)
screen-iphone-portrait.png
(320x480)

<gap:splash gap:platform="ios" height="480"
src="res/screen/ios/screen-iphone-portrait.png" width="320" />

<gap:splash gap:density="mdpi" gap:platform="android" src="res/screen/android/screen-mdpi-portrait.png"/>
Generate icon online

http://www.quirco.com/iPhoneIcon
phonegap-2.9.1/lib/ios/bin/templates/project/www/index.html
<html>
<head>
<meta charset="utf-8" />
<meta name="format-detection" content="telephone=no" />
<meta name="viewport" content="user-scalable=no, initial-scale=1, maximum-scale=1, minimum-scale=1, width=device-width, height=device-height, target-densitydpi=device-dpi" />
<link rel="stylesheet" type="text/css" href="css/index.css" />
<title>Hello World</title>
</head>
<body>
<div class="app">
<h1>PhoneGap</h1>
<div class="deviceready blink">
<p class="event listening">Connecting to Device</p>
<p class="event received">Device is Ready</p>
</div>
<script type="text/javascript" src="phonegap.js"></script>
<script type="text/javascript" src="js/index.js"></script>
<script>
app.initialize();
</script>
</div>
</body>
</html>
Download Zip File: jquery.mobile-1.3.2.zip

Download

CDN-Hosted JavaScript:
- Uncompressed: jquery.mobile-1.3.2.js (useful for debugging)
- Minified: jquery.mobile-1.3.2.min.js (full library, ready to deploy)

CDN-Hosted CSS:
- Uncompressed with Default theme: jquery.mobile-1.3.2.css (useful for debugging)
- Minified with Default theme: jquery.mobile-1.3.2.min.css (full library, ready to deploy)
- Uncompressed structure without a theme: jquery.mobile-1.3.2.css (useful for theme development)
- Minified structure without a theme: jquery.mobile-1.3.2.min.css (full library, ready to deploy)

Copy-and-Paste Snippet for CDN-hosted files (recommended):

```html
<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"></script>
<script src="http://code.jquery.com/mobile/1.3.2/jquery.mobile-1.3.2.min.js"></script>
```

ZIP File:
If you want to host the files yourself you can download a zip of all the files:
- Zip File: jquery.mobile-1.3.2.zip (JavaScript, CSS, and images)

Microsoft CDN hosted jQuery Mobile files:
- http://www.asp.net/ajaxLibrary/CDN.ashx

Fork jQuery Mobile on GitHub
https://github.com/jquery/jquery-mobile

Change log

Popups
Remove: Changes app position data through to request/position handlers

http://jquerymobile.com/blog/2013/07/19/announcing-jquery-mobile-1-3-2/#download
Demo
Create Hybrid Apps with PhoneGap

https://build.phonegap.com/
Myday Mobile App -> Hybrid App

http://mail.tku.edu.tw/myday/m  ➔  http://mail.tku.edu.tw/myday/app/
PhoneGap Build

Source: https://build.phonegap.com/
<?xml version='1.0' encoding='utf-8'?>
<widget id="com.imtku.smap.mydaymobileapp" version="1.0.0" xmlns="http://www.w3.org/ns/widgets" xmlns:gap="http://phonegap.com/ns/1.0">
  <name>Myday Mobile App</name>
  <description>
    Myday Mobile App for Prof. Min-Yuh Day, Department of Information Management, Tamkang University
  </description>
  <author email="myday@mail.tku.edu.tw" href="http://mail.tku.edu.tw/myday">
    Min-Yuh Day
  </author>
</widget>
Install PhoneGap

Install

To Install, ensure that you have NodeJS installed, then open your commandline and run the following:

```
$ sudo npm install -g phonegap
```

Once installation completes, you can invoke phonegap on command line for further help.

Usage

```
$ phonegap create my-app
$ cd my-app
$ phonegap run android
```

Learn more at docs.phonegap.com

PhoneGap 2.9.1
Released 05 Nov 2013

PhoneGap 2.9.0
Released 26 Jun 2013

PhoneGap 2.8.1
Released 12 Jun 2013

http://phonegap.com/install/
Node.js is a platform built on Chrome’s JavaScript runtime for easily building fast, scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

Current Version: v0.10.33

**INSTALL**

DOWNLOADS  API DOCS

**NODE.JS ON THE ROAD**

PRODUCTION NODE HITS THE PAVEMENT
GET INSPIRED & INVOLVED LEARN MORE

**AN EXAMPLE: WEBSERVER**

This simple web server written in Node responds with “Hello World” for every request.

http://nodejs.org/
Install NodeJS

This package will install node and npm into /usr/local/bin

Node was installed at
/usr/local/bin/node
npm was installed at
/usr/local/bin/npm
Make sure that /usr/local/bin is in your $PATH.
PhoneGape Install

$ sudo npm install -g phonegap

npm (Node Package Manager)
PhoneGape Install

`$ sudo npm install -g phonegap`
PhoneGap Usage

$ phonegap create myapp
[phonegap] missing library phonegap/www/3.1.0
[phonegap] downloading https://github.com/phonegap/phonegap-app-hello-world/archive/3.1.0.tar.gz...
[phonegap] created project at /Users/imyday/Development/myapp

$ cd myapp

$ phonegap run android
[phonegap] detecting Android SDK environment...
[phonegap] using the remote environment
[phonegap] compressing the app...
[phonegap] uploading the app...
PhoneGap Usage

```
pc248:desktop imyday$ phonegap create myapp
[phonegap] missing library com.phonegap.helloworld/www/3.6.0
[phonegap] downloading https://github.com/phonegap/phonegap-app-hello-world/archive/3.6.0.tar.gz...
[phonegap] create called with the options /Users/imyday/Desktop/myapp com.phonegap.helloworld HelloWorld
[phonegap] Customizing default config.xml file
[phonegap] created project at /Users/imyday/Desktop/myapp
pc248:desktop imyday$ cd myapp
pc248:myapp imyday$ phonegap run android
[phonegap] detecting Android SDK environment...
[phonegap] using the local environment
[phonegap] adding the Android platform...
```

```
npm http GET https://registry.npmjs.org/cordova-android/3.6.3
npm http 200 https://registry.npmjs.org/cordova-android/3.6.3
```

```
/Users/imyday/.cordova/lib/npm_cache/cordova-android/3.6.3/package/bin/node_modules/q/q.js:126
  throw e;
```

```
Error: ANDROID_HOME is not set and "android" command not in your PATH. You must fulfill at least one of these conditions.
  at _fulfilled (/Users/imyday/.cordova/lib/npm_cache/cordova-android/3.6.3/package/bin/node_modules/q/q.js:798:54)
  at self.promiseDispatch.done (/Users/imyday/.cordova/lib/npm_cache/cordova-android/3.6.3/package/bin/node_modules/q/q.js:827:30)
  at Promise.promiseDispatch (/Users/imyday/.cordova/lib/npm_cache/cordova-android/3.6.3/package/bin/node_modules/q/q.js:760:13)
  at /Users/imyday/.cordova/lib/npm_cache/cordova-android/3.6.3/package/bin/node_modules/q/q.js:82:1:14
```
myapp/
```
<table>
<thead>
<tr>
<th>Name</th>
<th>Size</th>
<th>Kind</th>
</tr>
</thead>
<tbody>
<tr>
<td>css</td>
<td>--</td>
<td>Folder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>index.css</td>
<td>4 KB</td>
<td>CSS</td>
</tr>
<tr>
<td>icon.png</td>
<td>11 KB</td>
<td>PNG image</td>
</tr>
<tr>
<td>img</td>
<td>--</td>
<td>Folder</td>
</tr>
<tr>
<td>logo.png</td>
<td>30 KB</td>
<td>PNG image</td>
</tr>
<tr>
<td>index.html</td>
<td>2 KB</td>
<td>HTML text</td>
</tr>
<tr>
<td>js</td>
<td>--</td>
<td>Folder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>index.js</td>
<td>2 KB</td>
<td>JavaScript</td>
</tr>
<tr>
<td>res</td>
<td>--</td>
<td>Folder</td>
</tr>
<tr>
<td>spec</td>
<td>--</td>
<td>Folder</td>
</tr>
<tr>
<td>spec.html</td>
<td>3 KB</td>
<td>HTML text</td>
</tr>
</tbody>
</table>
```
phonegap-2.9.1/lib/ios/bin/templates/project/www/index.html
<html>
<head>
  <meta charset="utf-8" />
  <meta name="format-detection" content="telephone=no" />
  <meta name="viewport" content="user-scalable=no, initial-scale=1, maximum-scale=1,
  minimum-scale=1, width=device-width, height=device-height, target-densitydpi=device-dpi" />
  <link rel="stylesheet" type="text/css" href="css/index.css" />
  <title>Hello World</title>
</head>
<body>
  <div class="app">
    <h1>PhoneGap</h1>
    <div id="deviceready" class="blink">
      <p class="event listening">Connecting to Device</p>
      <p class="event received">Device is Ready</p>
    </div>
  </div>
  <script type="text/javascript" src="phonegap.js"></script>
  <script type="text/javascript" src="js/index.js"></script>
  <script>
    app.initialize();
  </script>
</body>
</html>
<!DOCTYPE html>
<html>
  <head>
    <title>Min-Yuh Day Mobile App</title>
    <meta charset=utf-8 />
    <meta name="viewport" content="width=device-width, initial-scale=1" />
    <script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
    <link type="text/css" href="http://code.jquery.com/mobile/latest/jquery.mobile.min.css" rel="stylesheet" />
    <script type="text/javascript" src="http://code.jquery.com/mobile/latest/jquery.mobile.min.js"></script>
    <!--PhoneGap-->
    <link rel="stylesheet" type="text/css" href="css/index.css" />
    <script src="phonegap.js"></script>
    <script src="js/index.js"></script>
    <!--/PhoneGap-->
    <script type="text/javascript">
      app.initialize();
    </script>
  </head>

  <body>
    <div data-role="page" id="MyHome" data-theme="b">
      <div data-role="header" data-theme="b">
        <h1>Min-Yuh Day</h1>
      </div>

      <div data-role="content">
        <div style="text-align:center">
          <img style="width: 50%; height: 50%" src="http://mail.tku.edu.tw/myday/images/Myday_Photo.jpg">
        </div>
    </div>
  </body>
</html>
<!DOCTYPE html>
<html>
  <head>
    <title>Min-Yuh Day Mobile App</title>
    <meta charset=utf-8 />
    <meta name="viewport" content="width=device-width, initial-scale=1" />
    <script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
    <link type="text/css" href="http://code.jquery.com/mobile/latest/jquery.mobile.min.css" rel="stylesheet" />
    <script type="text/javascript" src="http://code.jquery.com/mobile/latest/jquery.mobile.min.js"></script>
    <!--PhoneGap-->
    <link rel="stylesheet" type="text/css" href="css/index.css" />
    <script type="text/javascript" src="phonegap.js"></script>
    <script type="text/javascript" src="js/index.js"></script>
    <!--/PhoneGap-->
    <script type="text/javascript">
      app.initialize();
    </script>
  </head>
</html>
```javascript
var app = {
  // Application Constructor
  initialize: function() {
    this.bindEvents();
  },
  // Bind Event Listeners
  //
  // Bind any events that are required on startup. Common events are:
  // 'load', 'deviceready', 'offline', and 'online'.
  bindEvents: function() {
    document.addEventListener('deviceready', this.onDeviceReady, false);
  },
  // deviceready Event Handler
  //
  // The scope of 'this' is the event. In order to call the 'receivedEvent'
  // function, we must explicitly call 'app.receivedEvent(...);'
  onDeviceReady: function() {
    app.receivedEvent('deviceready');
  },
  // Update DOM on a Received Event
  receivedEvent: function(id) {
    var parentElement = document.getElementById(id);
    var listeningElement = parentElement.querySelector('.listening');
    var receivedElement = parentElement.querySelector('.received');

    listeningElement.setAttribute('style', 'display:none;');
    receivedElement.setAttribute('style', 'display:block;');

    console.log('Received Event: ' + id);
  }
};
```
Download Zip File: jquery.mobile-1.3.2.zip (JavaScript, CSS, and images)

Download

CDN-Hosted JavaScript:
- Uncompressed: jquery.mobile-1.3.2.js (useful for debugging)
- Minified: jquery.mobile-1.3.2.min.js (full library, ready to deploy)

CDN-Hosted CSS:
- Uncompressed with Default theme: jquery.mobile-1.3.2.css (useful for debugging)
- Minified with Default theme: jquery.mobile-1.3.2.min.css (full library, ready to deploy)
- Uncompressed structure without a theme: jquery.mobile-1.3.2.css (useful for theme development)
- Minified structure without a theme: jquery.mobile-1.3.2.min.css (full library, ready to deploy)

Copy-and-Paste Snippet for CDN-hosted files (recommended):

```html
<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"></script>
<script src="http://code.jquery.com/mobile/1.3.2/jquery.mobile-1.3.2.min.js"></script>
```

ZIP File:
If you want to host the files yourself you can download a zip of all the files:
- Zip File: jquery.mobile-1.3.2.zip (JavaScript, CSS, and images)

Microsoft CDN hosted jQuery Mobile files:
- [http://www.asp.net/ajaxLibrary/CDN.ashx](http://www.asp.net/ajaxLibrary/CDN.ashx)

Fork jQuery Mobile on GitHub
[https://github.com/jquery/jquery-mobile](https://github.com/jquery/jquery-mobile)

Change log

- Popups
  - Change: pass position data through to parent/destination handlers

[http://jquerymobile.com/blog/2013/07/19/announcing-jquery-mobile-1-3-2/#download](http://jquerymobile.com/blog/2013/07/19/announcing-jquery-mobile-1-3-2/#download)
<DOCTYPE html>
<html>
<head>
    <title>Min-Yuh Day Mobile App</title>
    <meta charset=utf-8 />
    <meta name="viewport" content="width=device-width, initial-scale=1" />
    <script src="js/jquery.js"></script>
    <link type="text/css" href="css/jquery.mobile-1.3.2.min.css" rel="stylesheet" />
    <script type="text/javascript" src="js/jquery.mobile-1.3.2.min.js"></script>
    <!--PhoneGap-->
    <link rel="stylesheet" type="text/css" href="css/index.css" />
    <!--
    <script type="text/javascript" src="phonegap.js"></script>
    -->
    <script type="text/javascript" src="js/index.js"></script>
    <!--PhoneGap-->
    <script type="text/javascript">
        app.initialize();
    </script>
</head>
PhoneGap Build

Adobe® PhoneGap™ Build
Package mobile apps in the cloud.

Get started!

Take the pain out of developing mobile apps.

Simply upload your HTML5, CSS, and JavaScript assets to the Adobe® PhoneGap™ Build cloud service and we do the work of compiling for you.

https://build.phonegap.com/
PhoneGap Build

Complete your registration

1. Create your account

Sign In

Adobe ID (Email Address)

imyday@gmail.com

Password

[********]

Stay signed in

Trouble signing in?

Create an Adobe ID

Sign In

Paid Plan

change

25 private apps
unlimited open-source apps
unlimited collaborators
PhoneGap Build

Create your account

Choose how you would like to sign in to PhoneGap Build.

- Adobe ID
- Github

Free Plan

1. private apps
unlimited open-source apps
unlimited collaborators

Includes Adobe Creative Cloud free membership with 2GB of storage and access to Adobe Edge Tools & Services and more. Learn more
PhoneGap Build
New source

Choose File app.zip

Please note this is a destructive action. We won't keep a copy of your old code.

Cancel  Upload
Configuration

Your application's details are bound to the config.xml file in your application package. To edit these details, change that file and push it back up to us.

icon file (png)

Choose File  No file chosen

app title
Myday Mobile App

package
com.imtk.usmap.mydaymobileapp

version
1.0.0

Configuration

2.9.0

description
Myday Mobile App for Prof. Min-Yuh Day, Department of Information Management, Tamkang University
Myday Mobile App

Myday Mobile App for Prof. Min-Yuh Day, Department of Information Management, Tamkang University

Options:
- No key selected
- Add a key...

Builds:
- iOS
  - Rebuild
  - Error
- Android
  - No key selected
- Windows
  - Rebuild
  - xap
- Blackberry
  - No key selected
- Rebuild
  - ipk
- WebOS
  - Rebuild
  - wgt
## Myday Mobile App

Myday Mobile App for Prof. Min-Yuh Day, Department of Information Management, Tamkang University

<table>
<thead>
<tr>
<th>Apps</th>
<th>Plugins</th>
<th>Collaborators</th>
<th>Settings</th>
</tr>
</thead>
</table>

**App ID:** 573842  
**Version:** 1.0.0  
**PhoneGap:** 2.9.0  
**Owned by:** imyday@gmail.com  
**Last built:** 8 minutes  
**Source:** zip package

**iOS**
- No key selected

- **Choose File:** No file chosen

- **Certificate (.p12) file:**
  - **Choose File:** No file chosen

- **Provisioning profile:**
  - **Choose File:** No file chosen

**Error**

**Rebuild**  
**No key selected**

**OTA install**

**Rebuild**  
**No key selected**

**Rebuild**  
**ipk**

**Rebuild**  
**wsf**

**Rebuild**  
**epk**
Myday Mobile App -> Hybrid App

http://mail.tku.edu.tw/myday/m  =>  http://mail.tku.edu.tw/myday/app/
Create Hybrid Apps with PhoneGap
Summary

• PhoneGap
  – PhoneGap
  – PhoneGap Build
    • index.html, css, js
    • config.xml
  – PhoneGap, jQuery Mobile

• Demo
  – Create Hybrid Apps with PhoneGap
References

• Zainul Setyo Pamungkas, PhoneGap 4 Mobile Application Development Cookbook, Packt Publishing, 2015
• PhoneGap
  – http://phonegap.com/
• PhoneGap Build
  – https://build.phonegap.com/
• jQuery Mobile
  – http://jquerymobile.com/
• Introduction to PhoneGap Build