ITIS/ITCS 4180/5180 Mobile Application Development
In Class Assignment 10

Basic Instructions:

1. In every file submitted you MUST place the following comments:
    a. Assignment #.
    b. File Name.
    c. Full name of all students in your group.
2. Each group should submit only one assignment. Only the group leader is supposed to submit the assignment on behalf of all the other group members.
3. Your assignment will be graded for functional requirements and efficiency of your submitted solution. You will loose points if your code is not efficient, does unnecessary processing or blocks the UI thread.
4. Please download the support files provided with this assignment and use them when implementing your project.
5. Create a zip file of your Framework 7 project with its related files.
6. Submission details:
    a. Only a single group member is required to submit on moodle for each group.
    b. The file name is very important and should follow the following format: **Group#_InClass10.zip**
    c. You should submit the assignment through Moodle: Submit the zip file.
7. **Failure to follow the above instructions will result in point deductions.**

In Class Assignment (100 Points)

In this assignment you will build a simple Photo browser app using Framework7 and Cordova library. The app will enable users take pictures and see the photo gallery as slide show. In this assignment you will learn how to create and build a Cordova based app on Android, in addition to using Framework7 for the setting UI.

Important App Requirements:

1. Android SDK should be installed, the following paths should be added to you environment variable $PATH: adt-bundle/sdk/platform-tools and adt-bundle/sdk/tools.
2. Install npm (sudo npm install npm -g).
3. Cordova library should be installed. Installation Guide (http://docs.phonegap.com/en/edge/guide_cli_index.md.html#The%20Command-Line%20Interface)

Steps to setup UI using Framework7 (Previous In Class):

1. Download Framework-7 library : https://github.com/nolimits4web/Framework7/
2. In terminal/ command line, navigate to downloaded folder and type:

```
$ gulp build && gulp server
```

3. By default you will be redirected to http://localhost:3000/index.html. This is the kitchen sink, which is simply a showcase of all the components that comes along with Framework7
   Note: if gulp build && gulp server issues errors saying module is missing then please install that module using npm –install –g –save-dev 'modulename'
4. You can access downloaded examples as well, for instance, if you want to access the inline-pages example, type the following URL:
   `http://localhost:3000/examples/inline-pages/`

Steps to create Cordova project using FW7 UI:

1. Create Project: run the following command to create a Cordova-Based project.

```
cordova create PhotoBrowser com.example.PhotoBrowser PhotoBrowser
```

The first argument *PhotoBrowser* specifies a directory to be generated for your project. The second argument *com.example.PhotoBrowser* provides your project with a reverse domain-style identifier. The third argument PhotoBrowser provides the application's display title.

2. Add Android platform: All subsequent commands need to be run within the project's directory, or any subdirectories within its scope:

```
cd PhotoBrowser
```

   Now you need to add the platform, in our case Android.

```
$ cordova platform add android
```

3. Add needed plugins: This app will need to access the native mobile Camera. To add this feature to the app:

```
cordova plugin add cordova-plugin-camera
```

4. copy your FW7 content into www folder: copy the contents of your work fro previous In class into the www folder inside the PhotoBrowser directory.
5. Make sure that the index page have the following line:

```
<script type="text/javascript" src="cordova.js"></script>
```

6. Build Project : Now that you have added the platform and the www source code, build the project. This generates platform-specific code within the project's platforms subdirectory. In our case, it will build an Android project structure.

```
$ cordova build
```

7. Run Android Project : At this point, The project is ready to run as an Android app. Have your device connected or your genymotion emulator running and run the following:

```
$ cordova run
```

8. Now your project is setup as an Android hybrid app. You can customize the template files provided and write cordova logic to fit the App description below.

App Description: This is a simple photo browser app built using standard web technology (html, javascript and css). The app enables users to take pictures through camera and view photos taken as slide show. For UI, Framework7

standard library will be used. We will use one of the templates provided by Framework7.
The app consists of 3 views:

Home View (Previous In Class)

The initial view of the app will contain will basically contain main navigation items to different views. See Figure-1(a)

1. The Home view should have 2 buttons named “Take Picture!” and “View Gallery”
2. On clicking “Take Picture!” button the app should open the camera and takes a picture and view the image in Photos View.
   Please refer the documentation provided for Cordova camera app
   http://docs.phonegap.com/en/3.3.0/cordova_camera_camera.md.html#Camera
3. “View Gallery” button should start the Photo Browser plugin. For this assignment we are using the Dark-themed one.

Take Picture

Clicking this button should do the following (see the following Figure):
1. Launch the device native camera to take a photo
2. Once photo is taken, an alert dialog should be displayed to the user to indicate the result of the process (Success or Failure)
3. If Success, then display this photo in “Photos View”, which consists of 2 items:
   a. Back Link: navigates back to Home View
   b. Image to display the taken image