Programming Assignment 2

Description：

a. Setup the Android development environment. We highly recommend that you develop the Android project in Eclipse. You also need to install Google APIs package using the android SDK. In this assignment, we recommend that you finish the assignment using the Android Platform 2.3.3, API level 10.

b. This assignment has three parts: **download a contact file**, **add data to Phone Contacts using code (not by Contact software)**, **show the people's positions with their names on Google Map(you can only query the Contacts to get the data in this step)**. (Details below)

c. The Project should be named "MapOfContacts".

Detail:

a. Fetch the contact file "contact.txt" from the url:

http://www.cs.columbia.edu/~coms6998-8/assignments/homework2/contacts/contacts.txt

The data will look like

Dan dan@columbia.edu 40010787 116257324

John john@gmail.com 23079732 79145508

Daniel daniel@gmail.com 37985339 23716735

Johnny johnny@gmail.com 40774042 -73959961

Makiyo makiyo@gmail.com 36155618 139746094

Add first column to Name in the Contacts.

Add second column to Email in the Contacts.

Add third column to Mobile Number in the Contacts. (the number will be used as latitude in the Map)

Add fourth column to Home Number in the Contacts. (the number will be used as longitude in the Map).

b. You have to set up API keys in order to use Google Map API. Here is a tutorial, you can set up your API keys following it:

http://remwebdevelopment.com/dev/a35/Android-How-To-Set-Up-an-API-Key-for-Google-Maps.html

c. Just showing markers on GoogleMap is not enough to show which person in what place, so I recommend you to use AlertDialog to show the Name of the person when you tap it.

d. This assignment has no restriction on what features you must use and also no restriction on what user interface you design. As long as you can implement those three functions in code, and demo to me that the results is correct. You are fine.

Hint:

a. In case you cannot find mistakes for certain operations. You need to add those user-permissions into your AndroidManifest.xml file.

```
<uses-permission android:name="android.permission.INTERNET"/>
<uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE" />
```

```
<uses-permission android:name="android.permission.WRITE_CONTACTS"/>
<uses-permission android:name="android.permission.READ_CONTACTS"/>
```

b.   Basically several buttons in the main user-interface are enough for you to show me the correct result.

c.   You don't need to show Contacts inside the application. You can show me it is empty first and then after add operation, it includes the data in the contact file.

d.   Be sure just show those five people's positions in the Map.

Grading

a.   Download the file successfully(20%);

b.   Read and add contacts in the file to Contacts(25%);

c.   The query of Contacts and the Google Map view of those 5 people(30%);

d.   The look and feel of your user-interface(15%);

e.   Understanding of the code and the code quality(10%).