COMP7506 Smart phone apps development
Group Assignment

Deadline: **on or before 4th Dec., 2017 (Mon) 11:55pm.**
Late penalty: Marks will be deducted by N*3%, where N is the number of days after submission deadline (minimum marks = 0).
Weighting: 30% (of the whole course)

Group

This is a group project. Each group is formed by 2-4 members.
There are 2 options:

- Option 1 for groups with 3 – 4 members: Developing a smart phone application from scratch.
- Option 2 for groups with 2 – 3 members – Developing a smart phone application to raise public awareness of telephone deception.

Option 1: Developing a smart phone application from scratch

Details:

Develop a smart phone application for either iOS or Android platform. The complexity of the application can depend on the manpower available. For example, a 4-member team can aim at a comprehensive application with various features while a 3-member team can aim at a simpler application. The topic of your application is not limited but you may follow the few categories as we discussed in the first lecture.

- Game
- Entertainment
- Information
- Social Network

In this assignment, each team should perform the following tasks:
1) Do a background research. List at least 3 similar applications in the market, summarize their features and point out their short-comings / possible improvements.
2) Design a smart phone application based on your findings in 1). For example, if your background research is about smart phone games, you should design a new smart phone game.
3) Develop your designed application using one of the following IDEs: i) Apple Xcode for iOS applications; or ii) Android Studio for Android applications; or iii) cross-platform tools like Unity for cross-platform applications. You may also use WebToolKits or PHP for the server program.

Marking schemes: (Total: 30%)

Marks will be given based on the following:

- Background research (5%)
- Design, functionality and creativity (5%)
- Implementation and overall quality (15%)
- Video presentation (5%)

Deliverables:

Each team should submit a compressed file onto Moodle containing the deliverables below:

1) A document file (at least 2 pages) with:
   - Results of your background research
   - A summary of your application. It may include images and diagrams if you feel they better convey your message. Basically, you should include the category, motivation, design and features of your application.
   - Contributions of each member (if your team consists of more than one member)
2) Source codes of your application with a readme file stating how to compile and execute your application.
3) A short video (at most 3 minutes) demonstrating main features of your application and how to use it.

Option 2: Developing a smart phone application to raise public awareness of telephone deception

Details:

The mobile app aims at raising public awareness of the telephone deception. In order to avoid the public from being deceived, a smart phone application will be developed such that pop-up graphical warning messages will be shown to alert the users when the telephone numbers of the incoming calls are not included in their phone books. The said graphical warning messages can be updated regularly (say being downloaded from the network).

In this assignment, students are required to implement a smart phone application either in Android platform or iOS platform or both to fulfill the above objective. Additional features can be included to attract users to download, install and use the application.

Marking schemes: (Total: 30%)

1. The app can get telephone numbers of incoming calls (6%).
2. The app can get telephone numbers from the phone books (6%).
3. The app can check whether the telephone numbers of incoming calls are included in the phone books (6%).

4. The app can show pop-up graphical warning message when the telephone numbers of incoming calls are not included in the phone books (6%).
5. A document file to briefly describe the techniques, methods, special features, etc. used in developing the app. Also list the citations for the reference (if any) (6%)
6. Additional features / implementation on both Android and iOS platform (bonus 3%)

Bonus marks: At most 3% marks will be given to the additional features or cross-platform implementation. Also note that the upper bound of the marks in this assignment is 30%. Suppose a student gets 29% marks plus 2% bonus marks, the student will get 30% instead of 31% in the final marks.

Deliverables:

Each team should submit a compressed file onto Moodle containing the deliverables below:

1) A document file (at least 2 pages) with:
   - Descriptions of the techniques, methods, special features, etc. used in developing the application.
   - Additional features in your application.
   - Contributions of each member (if your team consists of more than one member)
2) Source codes of your application with a readme file stating how to compile and execute your application.