

## IAT359 Course Project

The objective of the course project is to provide you with an opportunity to explore more topics, functionalities, design patterns, UI design, sensor interaction and hardware features on the Android mobile framework.

The proposed topic for your project should take advantage of the possibilities offered by a mobile device as an always present, always connected, programmable computing device, that presents the user with a rich set of interactions (audio, video, GPS, especially the various sensors).

Project work will be done in **pairs**. If you prefer to work individually, please send an email to Hanieh and you will be placed in a team of your own.

The project work is divided into four milestones:

- **Milestone 1:** Application proposal (10 points)
- **Milestone 2:** Prototype with basic functionality completed. Standard functionality in progress. In-class presentation and demo. (20 points)
- **Milestone 3:** Full implementation. Final updates, polishing the application. In-class presentation and app demo. (30 points)

The project work starts in week 5 and ends at the time of final presentations, in the last workshop of the course.

Total: 60 points, worth 25% of your final course grade

Each milestone will be described in detail in a separate document.

### Project Specification:

Design and implement an application that uses multiple mobile device features in an interesting and useful way.

Requirements:

The app should include the following:

- At least four activities
- Implicit intents and explicit intents
- Storing data in both preferences and SQLite database for the app. The SQL database should be local to the app.
- Sensor functionality.
- Either Camera or GPS functionality.

For the final version of your application, it is important that you pay close attention to the elements below. Part of the project mark will address these elements.

- Polished UI.

- Graphics if necessary
- Menu options / action bar
- Sound / feedback
- Persistence
- Responsiveness

It is expected that you do some individual study and research outside of class in some of the aspects that will be required for your project. Use the Android official documentation for developers as your starting point for topics that we have not covered in class.

### **Sources for Inspiration**

Check the most recent years for the following conferences:

- ACM MobiCom (International Conference on Mobile Computing and Networking)
- ACM MobiSys (The International Conference on Mobile Systems, Applications, and Services)
- ACM UbiComp (The International Conference on Ubiquitous Computing)
- IEEE PerCom (The International Conference on Pervasive Computing and Communications)
- HotMobile workshop (International Workshop on Mobile Computing Systems and Applications)