

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, various sensors).

Project work will be done **in teams of 2 students**.

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 progress review 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 4 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 shared preferences and SQLite database for the app. The SQL database should be local to the app. Your application should not need to access external databases (this is not covered in this course).
- 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, outside-of-class study and research 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.

Apps that are similar in nature to social media apps, requiring interactions between multiple users at the same time or access to external databases **are not recommended** for this project.