

System architecture

Since we are implementing our prototype on iOS, we are using a model-view-controller which is the most common architecture (besides model-view-viewmodel) on this platform.

At the following sections we are going to briefly describe the individual components.

Waterboy-ui

This component contains all the views which we need for implementing the GUI for our prototype.

We are going to use mostly standard iOS user interface components simply because it's the fastest way, and besides that, users are used to this patterns.

EventManager

This component represents the controller in our system. It basically handles all the logic, updates the ui and handles all the data.

Database

The database is our model. We are going to implement several model classes which store our data. To persist these classes, we are simply serialising them to disk.

Corelocation

Since Apple is seeing bluetooth-beacons as a way to locate the user, all the corresponding functionality is embedded in the CoreLocation framework, which we are going to use for handling the beacons.