Appendix A: Consultations

Figure 1: Initial Consultation

Summary of Consultation:

- We first discussed the iBeacons technology and its potential applications for our school's attendance system. We considered potential limitations and advantages of the technology, ultimately coming to the conclusion that it would be a good fit.
- I initially suggest the system as a way for us to take attendance in the school (by placing a beacon in each classroom and updating attendance that way).
- The client, however, pointed out a few flaws in the idea and decides that it's use as a safety net for our current attendance system is more fitting.
- The client runs through the overall functionality of the system as a system to locate students in the case of an emergency, or other necessary situation.
- The discussion has lent itself directly to the creation of the success criteria.

Refer to 'Audio Appendix A: Initial Consultation' audio file in the 'Consultation Evidence' folder.

Figure 2: Initial Consultation Continued Looking at Success Criteria

Summary of Consultation:

- Client said he wants distinct zones throughout the school which can be used to locate students within a specific area. He said there can be collections of beacons which belong to zones.
- He described each zone as a network of computers.
- He continued to explain the usefulness of this and why this system would help him, e.g. if parents are attempting to contact a student they are able to find the student quickly.
- He also raises the idea of a map pinpointing the location of the student; however, we decide that this would likely not be feasible for the software and the given technology.

Refer to 'Audio Appendix B: Initial Consultation Cont.' audio file in the 'Consultation Evidence' folder.

Figure 3: Prototype Design Follow Up Consultation

Summary of Consultation:

- The consultation occurred over email.
- I sent Mr. Dickinson an email asking for feedback on the prospective prototype and if there was anything that could be added or removed to make the product more successful.
- He responded by suggesting a new view that would display the location of the students on a map in the administration view. This would work by highlighting the location on a map of the school in distinct zones, which are to be predetermined for the application. This is rework of an idea that he previously had that would display the students location exactly, this instead displays a 'zone' or an area where the student is.
- This resulted in an additional success criterion (9): View the student's location by highlighting their location on a map of the school.
- He also suggested a more 'Apple-like' feel. This is a good idea because that means I can better apply existing GUI libraries available in swift, and save time by not unnecessarily rewriting code. This, however, does little to change the look of the prototype because it focuses on demonstrating where the functionality will be, rather than how it will look on an aesthetic level.
- Otherwise, he demonstrated that he was content with the design, and believed that it would fulfil the success criteria.

Results of Consultation:

1. The addition of a map view in the design prototype.
2. The addition of the map view to the success criterion.

Figure 3: Client Evaluation

Client Feedback Form From Consultation

Criterion Number	*Evaluation*
1	Both administrators and students are able to use the same login and it successfully redirects them to their respective views.
2	The student view provides information about the student as well as their location relative to the beacon that is closest to them via a text box on the screen.
3	The location updates every five minutes. Although five seconds was used for display purposes.
4	There is a table of students that can be searched via a search bar at the top of the screen.
5	When a student is clicked a new window appears with their information as well as a table of their locations.
6	A table of beacons is searchable with a search bar at the top of the screen.
7	Each beacon in the list can then be edited or deleted by clicking on it, and a new beacon can be added with a plus button at the top right of the screen.
8	The Mac app shows a list of beacons that mirrors what the IOS app has. A beacon can be clicked along with start transmitting to begin emitting the beacon.
9	When a location of a student (in their location table) is clicked, a window pops up that shows the students location on a map of the school highlighted in red.

Evaluation here is based on client response in the evaluation audio recording.

Summary of Consultation:

- We first begin by going through each of the success criteria, testing them for success or failure based on the client's response.
- The client thought of multiple extension ideas, one being particularly feasible for future extension although not a feasible 'improvement'. His idea was to put a beacon on every school bus so that we are able to know when students get on and get of the bus, which would provide more peace of mind for not only administrators, but parents.
- He further suggested, as far as what we have done with criterion 9, that the map view be replaced with google maps as a way to increase extensibility.
- We found that all of the success criteria had been met to the client's specifications.

Refer to 'Audio Appendix C: Client Evaluation' audio file in the 'Consultation Evidence' folder.