

Criterion B: Analysis

Proposed solution: An iOS application to introduce new students to the school as outlined in criterion A.

Requirement specification

IT system requirements

- Hardware: iPad (4th generation), 9.7-inch Retina display, Wi-Fi-enabled, assisted GPS and GLONASS connection.
- Software: Xcode 9.4.1 for application development, iOS 10 operating system to run the app in.

System interaction

- The application will only be compatible with iOS
- The design of the app will be scalable but will be specifically tested for the 9.7 inch display
- The device needs a stable Wi-Fi and GPS connection for best performance

Input/output requirements

Development

Input requirements

- The school floor plan layout, information about the school blocks, GPS coordinates of various locations

Product

Input requirements

- GPS user position

Output requirements

- Information about sections of the school, position in relation to the map, different blocks (sciences, languages, offices)

Processing

Development

- Process information given by the client into object notation

Product

- Use the user GPS information to display their position

Security

Development

- Use of a git version control to prevent losing files for development and making an irreversible mistake

Product

- The application will only accessible on school devices and use publicly accessible map information

Specific performance criteria

- a) Provide an easy way to orient around the different parts of the ISHR campus
- b) Include user-friendly and minimalistic GUI
- c) Provide only the most relevant information about each section of the school
- d) Display the layout of the school campus in a simple manner
- e) Compatible with the school provided iPads

Justification of chosen solution

In order to ensure a technical compatibility with the school's iPads, the two solutions I considered were a website or an application. While the final product will be connected to the internet, a website might have trouble updating while walking through the school campus. I have more experience in website development but a non-complex application such as this shouldn't be much of a problem for me. An application has a native integration with the particular hardware and software and will therefore provide much easier use of the GPS information and look much better as a stand-alone application in contrast to a website, requiring a browser. A website would also require more resources such as a way to host it and make it more complicated for the client to use.

The files containing the school's layout are easy to obtain by my client since he is one of the teachers and therefore has access to this information as well as any additional details about the different sections of the school. Since the application will be only installed on the school iPads, there is no security risk of unauthorized access to the information provided in the app.

While the app itself might be challenging for the client to maintain or modify, the file with the outline of the school could be easily swapped out with an updated version if needed in the future. One of the specifications of the product is its ease to use and so there should be minimal or no training needed to familiarize my client with the app.

Word Count: 260