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: Apple iPad, 9.7" Retina display, 6th Generation, 32 GB, Wi-Fi-enabled.
- Software: Xcode 10.1 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 layout, important school locations, information about each of the locations including their GPS coordinates.

Product

Input requirements

- User real-time position

Output requirements

- Different locations in the school, user's position in relation to the map.

Processing

Development

- Process information given by the client into object notation and process it into the integrated Apple maps

Product

- Use the user's real-time position information to display the user location

Security

Development

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

Product

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

Specific performance criteria

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

Justification of chosen solution

In order to ensure 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 native integration with the particular iPad hardware and software which makes it much easier to use the information about users position. It will also look much better as a stand-alone application in contrast to a website which requires a browser. A website would make it more complicated for the client to use and require more resources such a hosting provider which is why I chose to develop an application.

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 important locations in the school and their details. 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 locations could be easily modified in the future. One of the key aspects of the product is the fact that it is easy to use. There should be minimal or no training needed to familiarize my client or the users with the application. There is some guidance necessary to outline the process of updating the locations file and the information it contains.

Word Count: 282