

Woodland Integrated Health Campus targeted to be operational after 2020 is expected to be one of the largest hospital campus in Singapore with about 1400 beds. It will be an integrated healthcare facility that will include an acute hospital, a community hospital and a nursing home. The hospital will serve the anticipated increase in demand for healthcare services in the northern region of Singapore

The collaboration started in 2016, and we have been working on proof of concept projects to explore innovative ideas in addressing manpower constraint, as well as ways to increase the visitor experience. To date, a few projects have been completed under this collaboration, and we continue to explore new ideas to further enhance the collaboration.

The first version of Way Finder project is created to provide an innovative way for visitors to find their ways in the hospital with a mobile app. The aim of this project is to provide a seamless journey of care experience for visitors as soon as they step into the hospital.

After discussion with the Woodlands Healthcare Campus team, we proposed to refine Way Finder and the enhancement shall include the following features:

- * Indoor Navigation using WIFI Fingerprinting technique
- * Seamless end to end journey of care as soon as visitors steps into the campus

The system shall include an Android Mobile app that visitors use for appointment reminder and indoor navigation system. The system also includes a web application for hospital staff to provide administrative function to the system. Students are free to propose the technology platform but they are strongly encouraged to use the cloud platform. The project is expected to be completed within 12 weeks.

In week 3, the expected deliverables include

- Preliminary Project Plan with the allocated task
- Setting up the team development environment, including the test infrastructure
- Understand how Way Finder v1 works, and able to modify the content
- Wireframe and prototype of the proposed system to be presented to Woodlands Healthcare

In week 6, students are expected to complete at least 50% of the mobile and web application. They should have a preliminary WIFI Fingerprint navigational system to be ready for testing.

In week 9, students should have completed the mobile and web app, and perform integration testing on the system. There will be another meeting scheduled with the user to solicit feedback.

By week 12, these feedback should have been incorporated and testing should be completed and students are ready for their final presentation.