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## CSE 403 Project Proposal

### OVERVIEW

Our product is an Android phone app designed to help UW students find their way around the school campus more easily and improve their knowledge of where things are located around campus. It would allow users to search for buildings or other locations of interest on campus based on what they are trying to find, such as ATMs, vending machines, bus stops or computer labs. The results would be displayed on a map, which would indicate where the user is and where their destination is, as well as the shortest route to get there. Users can look up information about each individual building or facility. Restaurants, specifically, will provide information on daily menus and display customer reviews and ratings provided by other users. Buildings or libraries will provide information on open hours, computer access, power outlets for laptops, vending machines, water fountains, and any other services or utilities that students may want to find.

This app should be particularly useful to UW students who use the school campus regularly, but it would also be useful to anyone unfamiliar with the campus, such as new students and visitors. A similar app exists for iPhones (m.Uw), but our app would provide functionality that this app does not. It would allow for more comprehensive search options based on what services the user is trying to find, allow users to review restaurants, offer additional navigation options, and show the user the shortest path to their destination. Additionally, most of this information is available on various websites, such as UW's website, but this would combine all of that information into one location that is easily accessible on the go.

### TECHNOLOGY

The app would include a GUI, a database to keep track of information about buildings and restaurants, and modules to implement the various functions of the app. For example, this would include a search function to allow users to find services and utilities on campus based on the information in the database and a function to determine what the shortest path to the user's destination is. It would also have a navigator to show the user their location on campus.

This project is interesting from a technical point of view as it involves Android phone app development, implementing a navigator to tell the users where they are, developing a GUI, implementing a database to track information about buildings and restaurants, update daily menus, and ensuring that it is simple and easy to use to provide students with a useful tool for finding things on campus. This project would use Java and SQL.

### CHALLENGES

The two biggest challenges to developing the product would be gathering and managing related data using a database and developing an Android app in general. Both of these are issues of not necessarily having learned the related concepts. Both of these risks can be mitigated by ensuring someone on the team is familiar with the concept enough to work on that part of it, or by having the team work together to ensure that they have learned the concepts in a timely enough manner to complete the product on schedule.