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Final Project Proposal

Purpose:

This project is primarily intended as a learning opportunity for myself to learn iOS and Objective-C. Mobile development is an extremely fast growing field and I do not believe enough classes stress learning it. This application will be for iDevices and is intended to help make the lives of students at the University of Illinois easier. Not only do I plan to familiarize myself with Objective-C, iOS, and XCode but I will have an opportunity to work with accessing online webpages, using APIs, parsing data, and multitouch gestures.

Description:

This projects aim to be a quick reference breakfast, lunch, and dinner menus at the University of Illinois's public dining halls. It will access the dining hall website, download and parse the information, and cleanly display it to the user. The idea for this project came from how annoying I found it to have to spend time figuring out where I wanted to eat each day when I was a freshman. The goal of this project is to provide a free, fully functional app to students for the Spring 2012 semester.

Challenges:

There will likely be many small challenges with learning a new language but the biggest challenge I foresee is familiarizing myself with objective-c, efficiently accessing the dining hall website while using the least amount of data, and parsing and storing the menu information. Since the success of a mobile app depends highly on it's user interface, I also foresee a big time constraint in developing a clean, presentable GUI.

Features:

Specifically the core of this project will be will be accessing the dining hall website on first open each day, download the required content, and parsing it. I will then need to display it to the user in an organized user friendly way. Here is a break down of the features the project will have:

- Clean, easily navigational GUI
- Filtering dining halls that have (or do not have) specific foods on the menu

- Location and operation hours of each hall
- Quick access for feedback to each hall
- Rate each dining hall
- Quick access to tomorrow's menu for planning meals ahead
- Nutrition/Allergen information
- Dining hall Favorites tab
- *Potential* Social Features: Check in option and let your friends know where you plan on eating tomorrow.

Schedule:

Week 1:

- Learning Objective-C
- Basic GUI -- displaying current day's menu
- Accessing dining hall website

Week 2:

- Parsing data from dining hall website
- Storing data in simple structure
- Display data
- Add tomorrow's menu tab
- Improve GUI look and feel

Week 3:

- Store data in SQLight
- Show SQL data
- Improve GUI look and feel

Week 4:

- Multiview application
- Add favorite foods (for alert system later)
- Format output
- Set up future sqlite tables and improve database overall efficiency

Future:

- Add location and operation hours for each hall (need new table/regex)

- Specialties tab (need new table)
- Feedback for dining halls
- Add Settings/Alerts (Allergen/Favorites (prefetching)/Filter foods)
- Rate dining halls (in app only)
- Google Maps API