Lion GPS by Team Grumpy Old Men

Part 0

We will use the Java programming language on the MacOS operating system to develop our program. Android Studio will be our IDE/Development tool of choice. We will use NoSQL via MongoDB for our database and persistent storage needs.

Grumpy Old Members

Jason Konikow `uni: jk4057`
Christopher Thomas `uni: cpt2132`
Billy Armfield `uni: wsa2113`
Luigi Pastore `uni: lap2204`

Summary

Lion GPS will be an android application that provides directions for students to their given class' building. It will store previous destinations and a list of locations on campus supplied by the student to a user profile, and retrieve and mutate that information as the app is used. The directions will be generated by our usage of the Google Maps API, along with additional pathing logic supplied by our team to account for deficiencies/knowledge gaps in Google's pathing logic. The app will also store a user's class schedule.

Motivation

Often times when starting a new semester because of the sprawling nature of Columbia's campus it is common to have class in a building you are unfamiliar with. The aim of LionGPS is to eliminate the hassle of finding new buildings by providing easy to follow walking instructions from any point on campus, to any building one wants to find.

User Stories

- As a student, I want to know where all my class buildings are. My conditions of satisfaction are that LionGPS will give me a route from my current location to the building of my choice.

- As a student, I want to see a "recent search" section so I will not have to search for the same building multiple times. My conditions of satisfaction are that there is a section of the app showing my 10 most recent searches.

- As a student, I want to see an overlay of where their classes reside atop a map of the Columbia campus, so I can have a handy visual reference of where all my classes and seminars reside.

- As a student, I want to be able to use the colloquial name of a Columbia building - or the SSOL building code - when finding directions, to avoid having to type the full address of a location on campus.

- As a student, I want to start typing a location, and have the application show recommendations as I type, so I can save time.

- As a student, I want an easy way to keep track of my classes. My conditions of satisfaction are that I can create a table of my classes and the buildings they are in, and will be able to retrieve this list after closing and re-opening the app

Stretch Stories

- As a student, I want to be able to plug into SSOL to automate the process of transferring my class locations into the app.

- As a student, I want to log into my apps with as little friction as possible. My conditions of satisfaction are that I can log into LionGPS using authentication with facebook.

- As a student, I want to find new friends who are taking the same classes. My conditions of satisfaction are that there is a "share to Facebook" button which will let other budding young Lions find me.

- As a student, I want to tap on a building on the map to learn more about it. My conditions of satisfaction are that a link will redirect me to wikicu.com.

- As a student, I want to know where all the libraries are. My conditions of satisfaction are that I can tap a "Libraries" button on the home screen and a map will appear on the screen with pins dropped on each building with a library.

- As a student, I want to know where all the coffee shops on campus are. My conditions of satisfaction are that I can tap a "Coffee Shops" button and a map will appear on the screen with pins dropped on each building with a coffee shop.