Laker for a Lifetime



Design Document

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**Introduction**

Or team has been commissioned to complete a mobile app for the organization “Laker for a Lifetime”. This app is considered a philanthropy application that will help educate students about the many donors and benefactors of Grand Valley State University, in an effort to encourage students to be just as proud and generous to the institution they received their education from.

The application should include several functions such as Images of building and information of the donors they are named for, as well as a locator feature that will allow the user of the application to access information about the building closest to them.

**Problem Description**

The problem and reason for our application is that “Laker for a Lifetime,” feels that students do not know enough about the history and culture of Grand Valley, so this app would act as a cool and interesting learning tool. The features described in the introduction would allow the students to interact with the application constantly learning new things.

**Learning Curves**

We plan on encountering several learning curves throughout the semester, as this is the first time any member of our team has developed a mobile application for IOS. For me specific learning objectives:

Daniel Newell:

I am new to IOS development so I will be learning many new things throughout this senior project. I am primarily a windows user so developing on a Mac will be completely new to me. I will be learning to develop in Xcode which the development IDE that we will use to do the IOS development. All of our coding as far as I can tell will be in Objective-C. Objective c is the object oriented version of the standard C language. I have worked in C before so I will have this experience to help my development process, but there are still many new features in Objective-C that I am excited to learn. I am sure that there are many other new technical functions that I will be learning throughout the semester, but those are just a few that I could think of.

Josh Walker:

I am also new to IOS development, so I will be learning a lot throughout the development of this application. I have really only used mac technology on GVSU language lab computers, so developing on a mac will be all new to me. I also don't know anything about development using Objective-C, so I will be learning this language, and learning how to program using the xCode IDE. In addition, I am excited to learn about the MVC development model, as I have seen that it is a standard among most web-based and mobile applications. I also plan on learning how to use GPS and geolocation to help meet the requirements of this project.

Nick Workman:

Im excited about this project because I’ve always had a huge interest in in IOS development but never got around to actually doing it. I guess this is the ‘push’ that is really going to truly get me started. As for experience, I have done various simple tutorials in Xcode but haven’t wrote an application of my own. I currently work in .NET using C#, WPF, and SQL so I’m very interested in seeing how similar / different objective c really is. My main focus of this project is going to be ‘good design’. What I mean by this is the project is conceptually very simple but presenting the information in a intuitive and attractive way is going to be difficult. After taking CS 368 Usability and Design I truly see the importance of early design practices. I plan on sharing this information with the group and actually make something such as a storyboard, paper prototype, and or a mockup in balsamiq for our client. Doing so will give us multiple high level perspectives before we even start coding, resulting in overall better app in less time. On the more technical side I’m familiar with mvp and mvvm models so the mvc should be pretty easy to pick up. I have no experience with the gps / location functions of the Iphone that will be a fun topic to cover, also might be very complicated if we decide to display rooms on the map as well.

Thomas Peterson:

I am completely new to mobile development, and it wasn’t until fairly recently that I could even say that I’ve even used a mobile device. I don’t think I’ve even used a Mac since middle school, and this project has also already led to me learning about virtualization so that I can avoid going to Kennedy to develop for this project. My experience in working with git is limited to a couple projects during the AI class, so there’s a lot to learn there. There are a variety of technologies that this project will use, such as geolocation that I have no experience with, so again there’s plenty of material to learn from.

**Architecture Design**

**Interface Design**

(All primitive images of the Interface are located in the images section)

We plan to keep our interface design relatively simple. We want this application to be as user friendly and interesting at the same time. It is important to us that we develop unique ideas to display the information requested by the user to create a better overall user experience every time someone uses our application.

Our main interface Architecture will consist of several different screens. The main screen will allow the user to do one of three things. Search for information on a specific name, serach for information on the nearest building to them, or it will allow them to view a map of all the buildings and select the building of their choice.

At the next level there are a couple of other screens. If the user selected the search option on the main screen then the next screen will populate a list of all of the buildings and the user will be able to pull up information on any selected building. If the user selects the “Near Me” option then the application will pull up the information screen about the nearest building.

If the user selects the map option then the application will then prompt the user to select one of the three grand valley campuses (Allendale, Pew, and Holland). After the user selects the specified campus a map will appear showing the locations of all building on that campus. By selecting a building on the map the user will then be able to see the information page for that requested building.

In all of the scenarios the user will eventually see an information page about a specific building. Through our application we will allow the user to find their requested building through several different paths.

**Images**