INF 551 Project Proposal

Wanjin Li Taoran Ju Hyun Jun Choi
{wanjinli} {taoranju} {choi797}

1. Introduction

Our idea is developing an Android application called *diSCover*. It is designed for USC community includes students, faculty and alumni, to recommend good resources in USC campus and share their extraordinary experiences to each other. Students can post photos, pictures and write several comments to describe the item, and other students can ask question and chat with the author through the app.

2. Functions

2.1. Recommendations

Posted by USC users. When posting the recommendation, author has to choose the label of category. In total, we have four categories, Food, Activities, Study Places and Parking Lot.

2.2. Post Contents

Each piece of recommendation may contain one of or both several pictures and text description. And author is required to indicate the location information at the same time.

2.3. Chat

If user want to know specific details about the recommendation information, user can send messages to the author and the author can reply in real time through the app. The author can set as quiet mode if he doesn't want to be bothered by strangers.

3. Techniques

3.1. Data Storage

We use Firebase as the cloud storage database. The user information, text, chatting records, and the path of pictures will be stored in JSON format. The pictures and location coordinates will be store in Firebase at the same time.

Firebase has many advantages: it makes it easy to access data and files, users do not need server infrastructure to develop apps, it has high security, and Firebase is easy to use compared with other database systems. Therefore, we have decided to use Firebase.

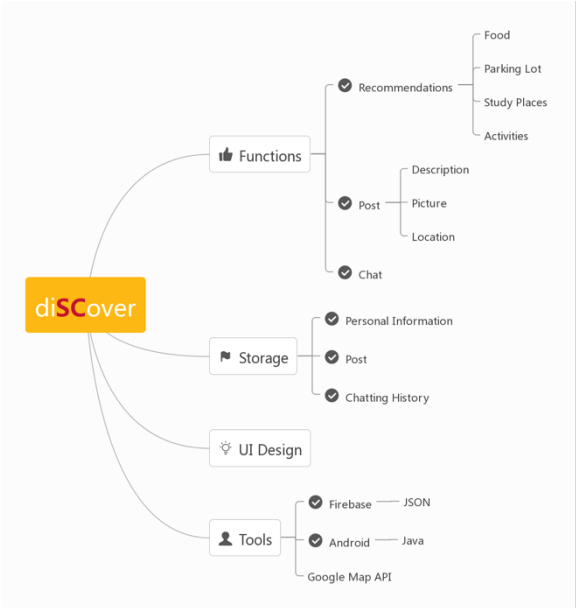
3.2. User Interface

We will use Java to develop an Android app, and may choose API in level 16 which is able to accommodate most equipment.

According to StatCounter, Android has an approximately 65% share in the mobile operating system market. This is a very important factor for my team, because we hope that many users will use our app as soon as possible. Therefore, we have chosen Android as the user interface.

3.3. Location Function

We will use Google Maps API to realize location function. To be specific, after choosing a place, users can find the location where they want to go by map. In addition, we will set some markers on a location to show which category it belongs to and strength of recommendation.



By using the Google Maps API, we can embed Google Maps site into our Android app. It is convenient to retrieve rich details about a place. What's more, if we feel a little stuck, we can get help in Stack Overflow, which is very helpful when we are developing our app.

4. Team Information

4.1. Responsibility

Wanjin Li and Hyun Jun Choi are responsible for data storage and android development.; Taoran Ju is responsible for developing location function.

4.2. Timeline