

A report on

FANCY FOODIE : A FOOD REVIEW APP FOR IPHONE

Done by

Full Name	Xinjiang Shao
UIN	675469866

Advisor	Jakob Eriksson
Secondary Committee	Ugo Buy



Department of Computer Science
UNIVERSITY OF ILLINOIS AT CHICAGO

Spring 2013

CERTIFICATE OF APPROVAL: MASTER'S PROJECT



UNIVERSITY OF ILLINOIS
AT CHICAGO

601 S. Morgan Street (MC 192)
<http://grad.uic.edu/>

Student Name: _____ **UIN:** _____

Student Name: _____ UIN: _____
Last _____ First _____ M. _____

Last

First

M.

UIN:

Degree Program:

Degree Sought:

Program Code: 20FS

Project Title:

Results:

SATISFACTORY

Project meets the standards of scholarly performance expected of master's candidates in the field.

UNSATISFACTORY

Project lacks the minimum criteria for approval.

Grade Change:

(Indicate below any research courses requiring a grade change upon completion of the project.)

AUTHORIZED APPROVAL

Major Advisor:

Date:

Committee:

Date:

Date:

Date:

Date:

Department DGS:

Date:

Graduate College:

Abstract

Here is abstract.

Contents

1	Introduction	1
2	Background	2
2.1	Motivation	2
2.2	Restaurants Review Apps	3
2.2.1	Yelp	3
2.3	Recipe Related Apps	4
2.3.1	Evernote Food	4
3	Project Design	5
3.1	System Requirement	5
3.2	Design Philosophy	6
3.2.1	Singleton Design Pattern	6
3.2.2	Model-View-Controller	6
3.3	Architecture	7
4	Implementation	8
4.1	Data Model	8
4.1.1	Database Schema	8
4.1.2	Settings Property List	8
4.2	User Interface Design	11
4.2.1	Home Tab	11
4.2.2	Foodie List Tab	11
4.2.3	Stats Tab	11
4.2.4	Map Tab	11
4.2.5	Setting Tab	11
4.3	Workflow	18
4.3.1	Insert New Event	18
4.3.2	Update Event	18
4.3.3	Delete Event	18
4.3.4	Searching Logic	18

5 Future Work	19
6 Conclusion	20
Acknowledgements	21
References	22

List of Figures

3.1	Storyboard of Fancy Foodie	7
4.1	Database Schema	9
4.2	Home Tab View	12
4.3	Foodie List Tab View	13
4.4	Statistics Tab View	14
4.5	Map Tab View	15
4.6	Setting Tab View	16
4.7	Album View	17

Chapter 1

Introduction

Mobile Apps are making our life more and more interesting than ever before. A lot of young people love to take photo with their smart phone, making comments to it and sharing with their friend about what they had done. I personally find it would be useful if there is a tool for anyone to create food event and share with friends.

This project is a food review application called “Fancy Foodie” for iOS. The particular aim of the project is to be able to review food and sharing food event with friends. Before you start eating, the user would take a picture of the food they are going to eat and give some basic information about location, tags, date etc. Tags are used to describe the type of the food such as “Chinese, Bun” or “Tea, Classic, Jasmine Green”. After finish eating, the user would make comments of the food. This application also lets user search nearby location or location defined by user, which will show a list of pins on the map where the user had been there before, to decide what the user want to eat. When the user saves a food event, he or she may also share the review and foodie’s photo to Facebook or Twitter or to an email address. For user to see the history records, the application also provide a way to view statistics data such as how many places the user has been, how the rates are, how many tags the user used etc. ?

Currently, various of apps related to foodie are available in apple’s app store. But most of them focused on the whole store/restaurant review. This could be inaccurate sometimes because you might just hate one dish. And there are also a few recipe-related apps. But the project want to have a better tool to publish what you eat instead of how that dish is made.

Chapter 2

Background

2.1 Motivation

Seeking for places to eat is a thing in my genuine. I always want to keep track of my food adventures so that next time I could have better sense of what kind of courses I should order. I could also give recommendations to my friends about the adventures. Luckily, it turns out that I am not the only one want to do such kind of thing. A few of my friends tells that people nowadays love to take photos of the food before they eat, and post their photos to all kinds of social media such as Facebook, Twitter, Weibo (Chinese Twitter) etc.. Especially asian students have really strong motivation to take pictures of food when they eat.

After searching the apps available in apple app store, I didn't find any suitable choice for my need. So I came up with an idea that I need to make best use of skills and build a good app for people who like to explore food world with friends.

2.2 Restaurants Review Apps

2.2.1 Yelp

Yelp is used by tremendous people to get rate of restaurants in order to pick a place to eat. The searching filter for Yelp app is really good since they have a very rich database of different kinds of restaurants as well as different reviews from many people. The app provide a way to check with map and give direction the restaurant which is helpful for people to find the place. On the other hand, since they have a really large database, it is not easy to find what exactly you want to go. And most of the reviews are from people you don't know, it is highly possible that the taste of the people might be different from yours. Let alone there are people paid to make fake good reviews or bad reviews for some restaurants.

In this app, you're not using this looking for suggestions of where you're going to eat, but you need to get suggestions from your social media where your friends published restaurants reviews. In this way, fake reviews will be avoided.

2.3 Recipe Related Apps

2.3.1 Evernote Food

Food app from Evernote did a good job showing the meals. The user interface is really friendly. Adding tags to the meal is easy and choosing place information is convenient in Food. The app also provided functionality to add a cuisine recipe as well. But people likes to take pictures of their food not always into making food. So in our project, we won't do any recipe recording.

Chapter 3

Project Design

3.1 System Requirement

- Operating System: iOS 6
- Compile with Automatic Reference Counting (ARC)
- Hardware Used: iPhone 5 and iPod Touch 4th Generation

3.2 Design Philosophy

3.2.1 Singleton Design Pattern

Design Pattern is used in this project. In software engineering, the Singleton Pattern arms at creating the instance of a class only one time so that we don't need to create twice. It is especially useful when you need to use a method of the class while the class is just a toolkit for you. In this project, we could this pattern to create a Settings instance in order to keep Settings globally shared inside of the app. There are a bunch of other places use this pattern as well, such as NearbyVenueController, LocationManager etc.

3.2.2 Model-View-Controller

Another popular design philosophy in software engineering field is Model-View-Controller. This separate each parts so that we could focus on one thing instead of all together. We could call it as a divide and conquer method. The benefit to use it is that if we changed one Controller function, sometimes we don't need to update the view for it. It is a time and life saver for app designing.

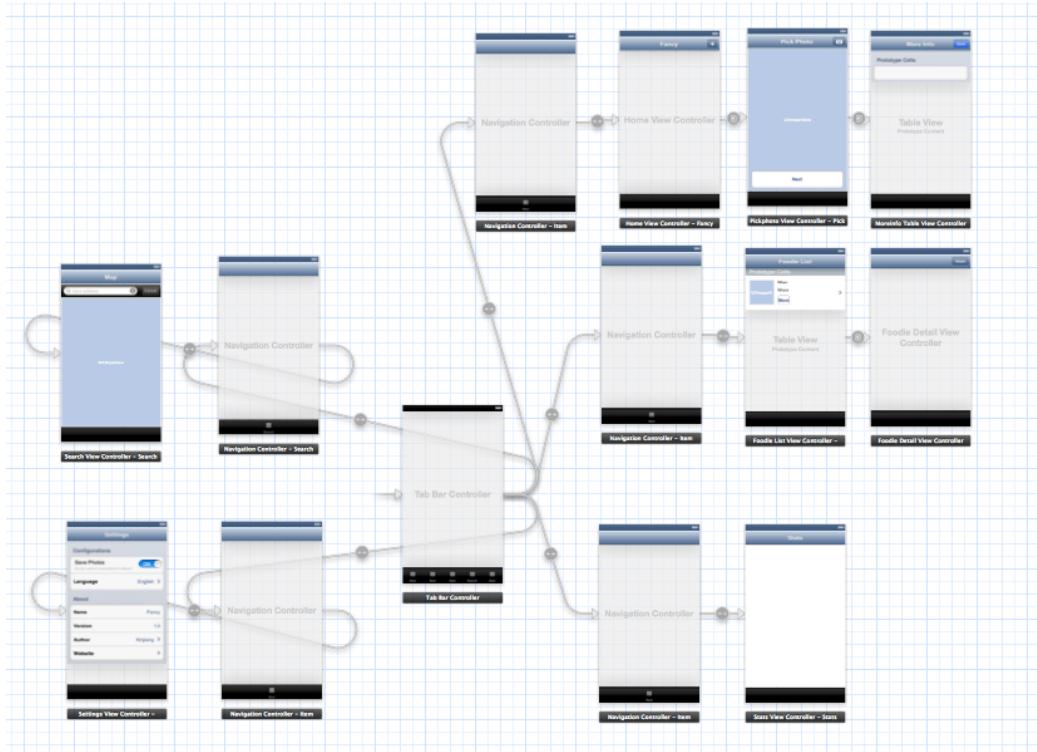


Figure 3.1: Storyboard of Fancy Foodie

3.3 Architecture

Figure 3.1 shows main views in storyboard. In this project, we build it as a tab based application. Five tabs are created for different purpose. Home tab plays as a guide to create a foodie event; Foodie list tab shows all the events created before; Statistics tab shows all aggregated data; Searching tab is used to show all past events and searching by address to find the events locations; Setting tab is for configurations.

Chapter 4

Implementation

4.1 Data Model

4.1.1 Database Schema

In this project, we used three table for storing all the information from users. As Figure ?? shows, Events is the main table in the app. It provides fields “address”, “comment”, “creationDate”, “latitude”, “longitude”, “locationName”, “rate”, “thumbnail”, “photoBlob” and “tags”. “address” field is used when user didn’t find their “locationName” in location List fetching from Foursquare API v2. “Latitude” and “longitude” is used for adding annotations in Map View. A 80*80 resolution thumbnail is stored for each event in order to accelerate loading in food list table.

“photoBlob” has one to one relationship with “photo” in PhotoBlob table. Using a separate table should also help speeding up when we don’t need to load photo while we still need to get the meta data of the event.

Field “tags” has many to many relationship with “photos” in Tag table since one photo can labeled with many tags and one tag can relate to many photos.

4.1.2 Settings Property List

When developing iOS, we can also use another way to store data we need. Property List is used to store all information related to the app itself. For instance, using Property List to store App Display Name, App Version are commonly used in all apps for iPhone.

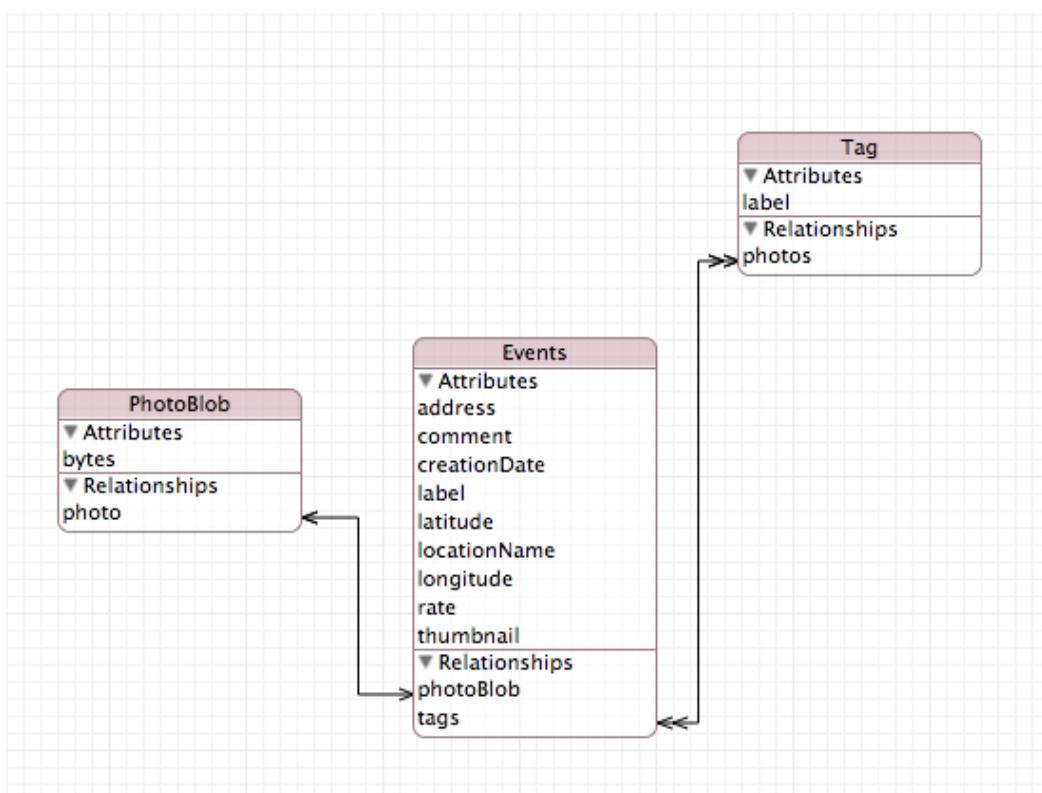


Figure 4.1: Database Schema

“Fancy Foodie” uses release number as main version string and git hash tag of the release as build string, so “1.0 (build 98a9e84)” is shown in Figure ?? which means that the main version number is 1.0 and build hash tag is 98a9e84.

This app also use property list to store whether we need to save photo to album locally. If this option is enabled, the app will create a album named “Fancy Foodie Photos” and put photos in this album as shown in Figure ??.

4.2 User Interface Design

4.2.1 Home Tab

4.2.2 Foodie List Tab

4.2.3 Stats Tab

4.2.4 Map Tab

4.2.5 Setting Tab

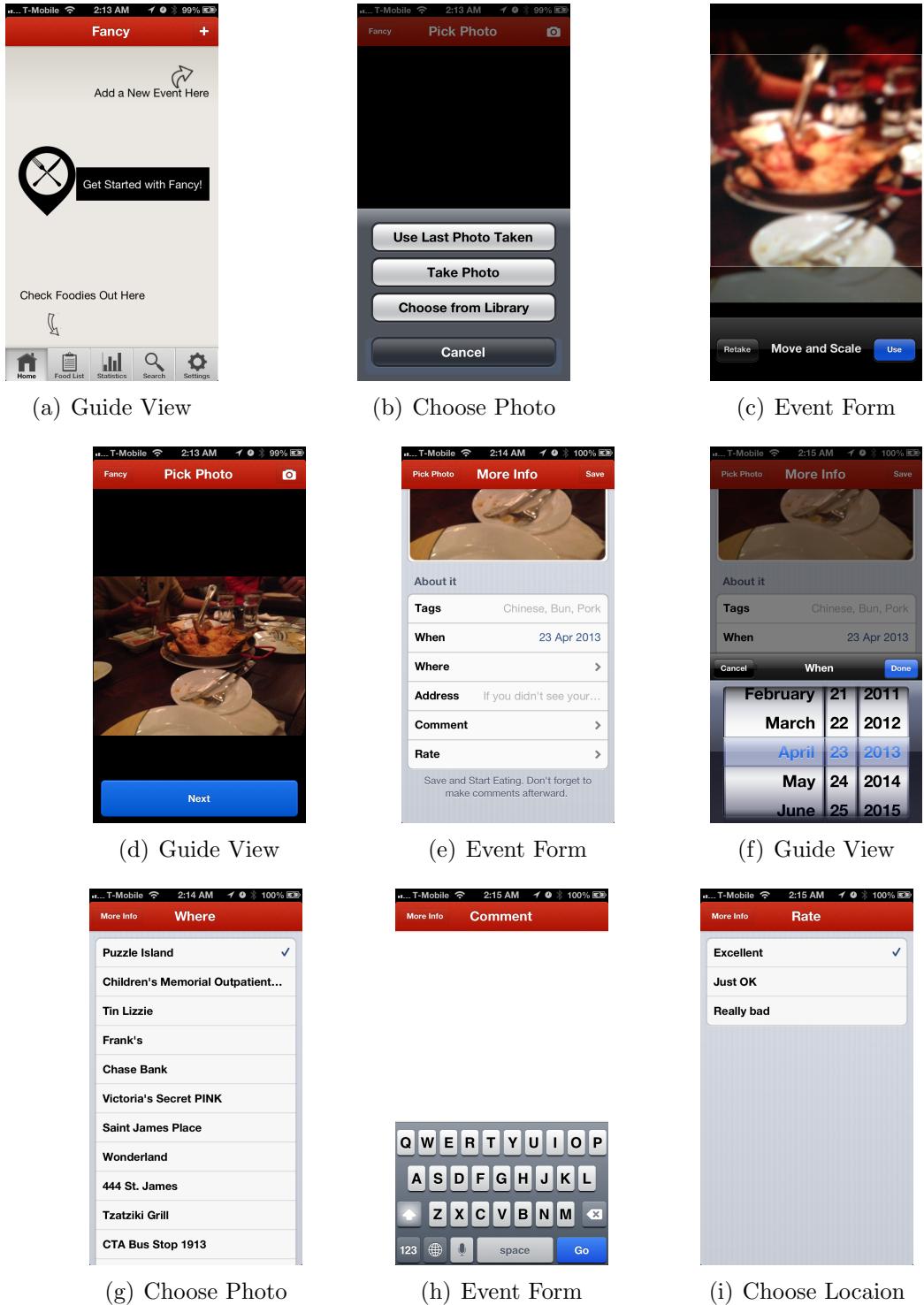
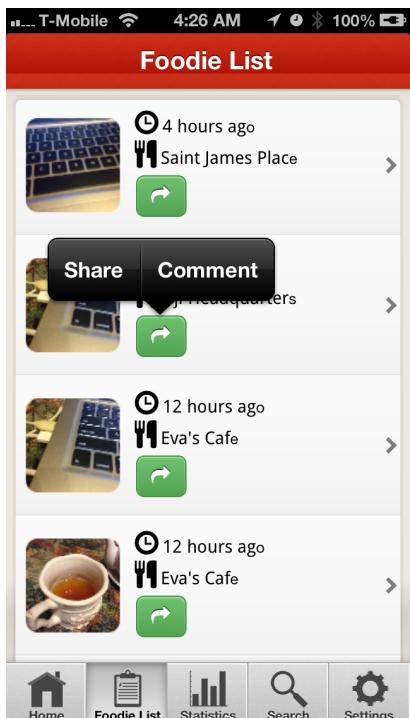


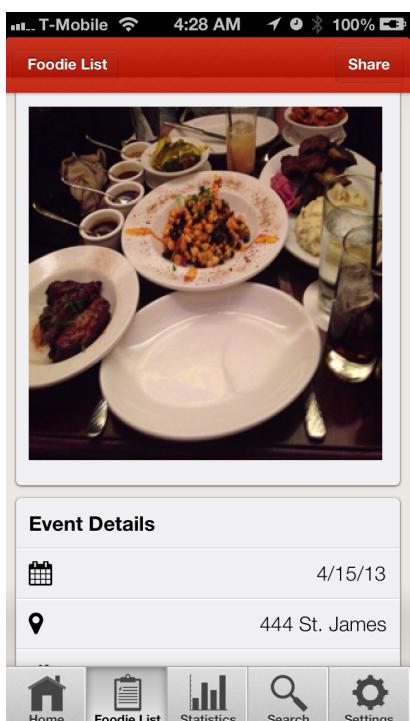
Figure 4.2: Home Tab View



(a) Foodie List



(b) Sharing



(c) Detail View



./screenshots/home-form-continued.png

(d) Detail View Cont'd

Figure 4.3: Foodie List Tab View
13

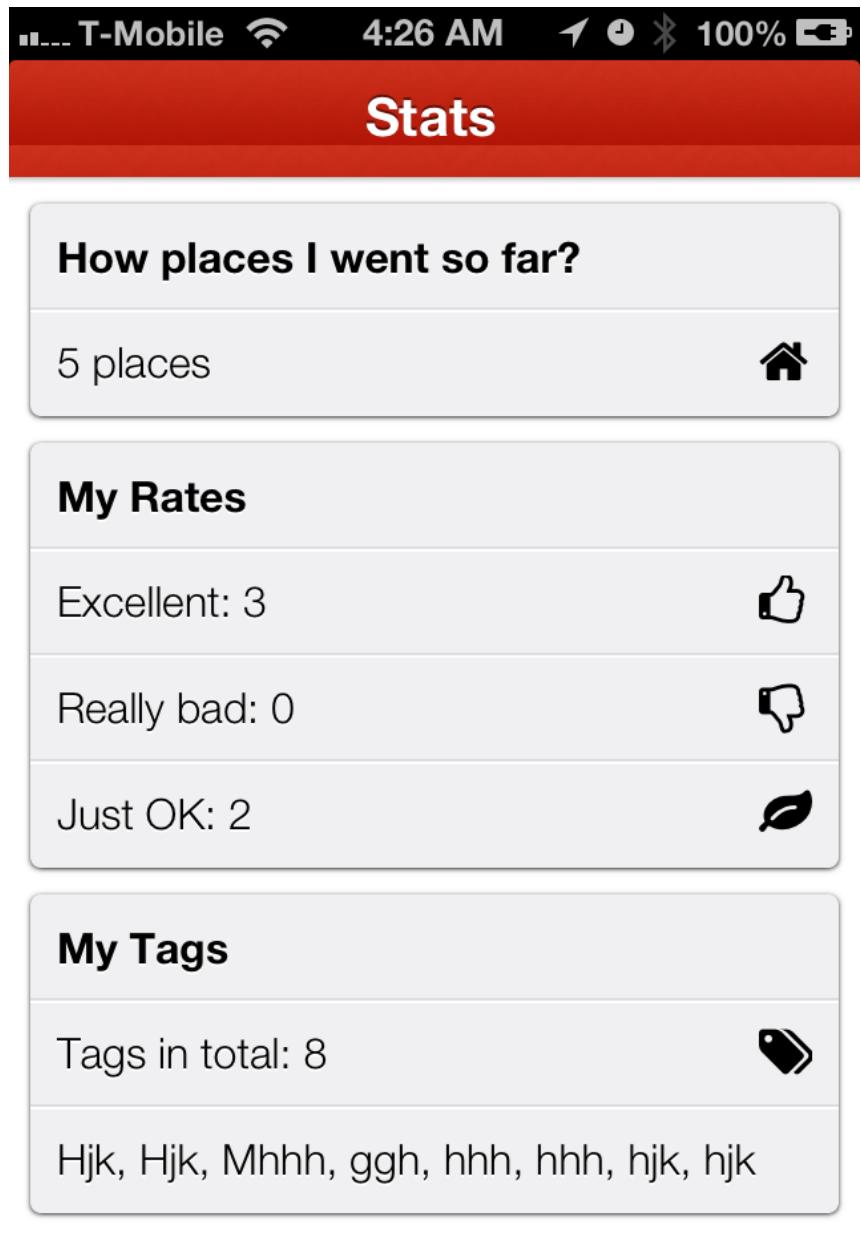


Figure 4.4: Statistics Tab View

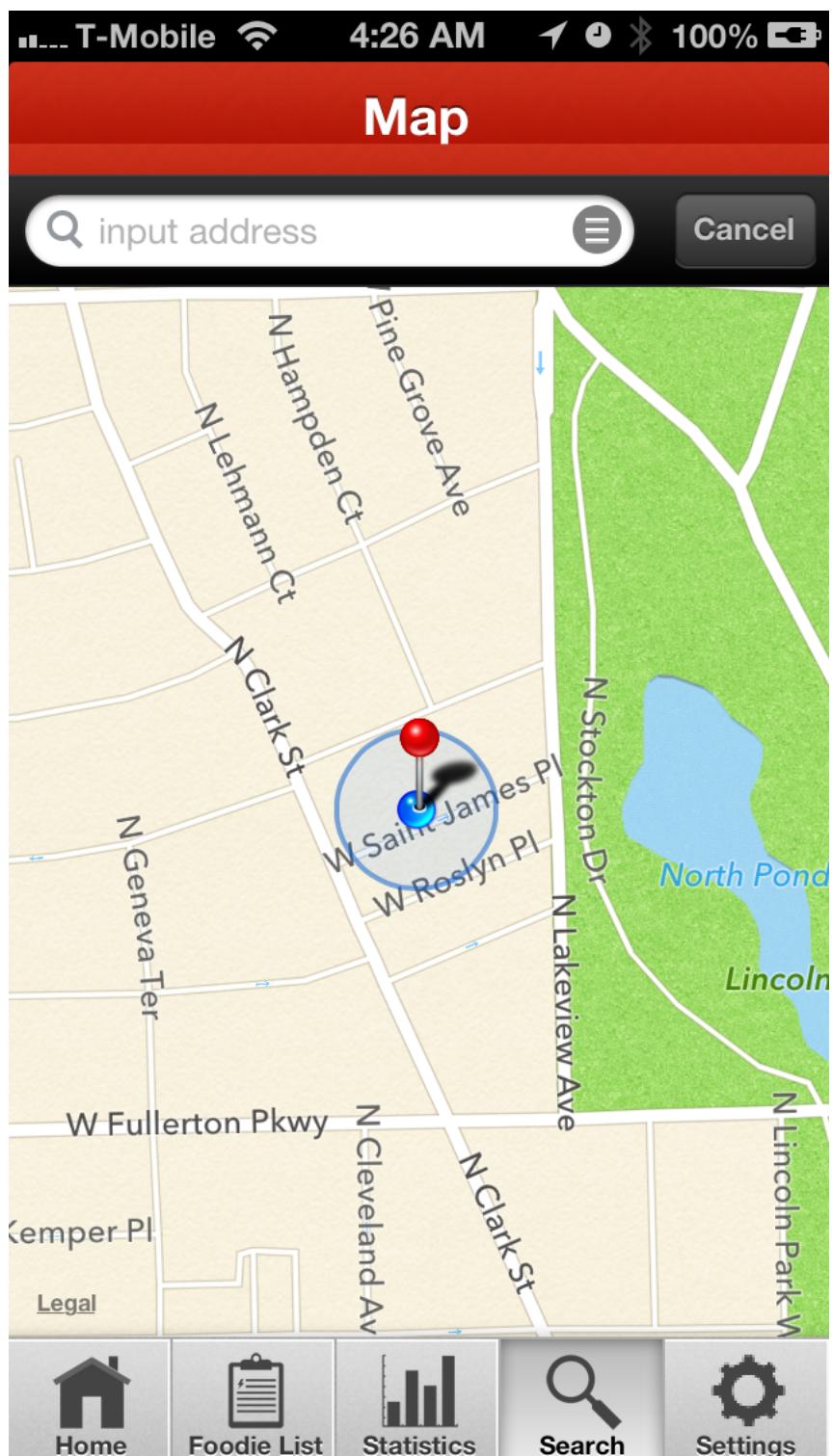


Figure 4.5: Map Tab View



Figure 4.6: Setting Tab View



Figure 4.7: Album View

4.3 Workflow

4.3.1 Insert New Event

4.3.2 Update Event

4.3.3 Delete Event

4.3.4 Searching Logic

Chapter 5

Future Work

Future work here

Chapter 6

Conclusion

Conclusion here

Acknowledgments

I would like to thank open source community. Without them, I probably need much more time to finish this project.

I would also like to thank Jakob Eriksson and Ugo Buy. Prof. Eriksson gave me a lot of valuable suggestion for my project. Prof. Eriksson and Prof. Buy both give a good evaluation of my work.

Special thanks to all my friends who made tremendous comments about my app and all my colleagues in EXACT Sports LLC who slow me down in the right way so that I can make the project better.

Xinjiang Shao
April 2013
University of Illinois at Chicago

References

- [1] ¡Name of the reference here¿, <urlhere>
- [2] ¡Name of the reference here¿, <urlhere>