**OBJECT ORIENTED ANALYSIS AND DESIGN COURSE**

**COURSE PROJECT**

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**Requirement:** Give the analysis and design documentation of any software project.

# App requirements

## Problem statement

Today, while the demand of connecting with other people such as friends, family, colleagues… is much more necessary, the properties of current social app have a lot of limitations. For example, when we need to notify my friends to setup a meeting, basically, you need to call or send message to tell your friend where the place is. That is not convenient because may be your friend don’t know how to get there. “Find My Friends” app is created to solve that problems.

The app was built in IOS platform which use location services to detect location. The conditions needed for interacting with other people are: they must use this app, allow app connecting to internet, allow app detect your location, they must be friend to find other location. It serves all type of user.

The system allows users to login via facebook account, phone number… to get friend list. They can add friend from facebook friend list or contacts …

After logged into the app, they can manage profile, invite friend to use the app, share location to specific people, request friend’s location, create event’s place and share with friend who you want to invite. People who is invited, can get the diretion from their location to that place and see how far it is from.

With profile management function, user can edit their informations about everything they want such as name, avatar, address… In addition,sometimes if they don’t want to share location, they can turn it off.

Another function is to invite friends. User can invite friend by email, phone number… If your friend have not been used this app before, the system will send the message(if invite via phone number) or send email(if invite via email). The message will contain the download link. If your friend is using this system, the system will push notification to your friend’app. Once they accepted the request, they will be appeared in your friend’s list.

Sharing my location to specific people is an interesting function. Whenever you turn it on, your friend will see your avatar appearing on map. Only people who you share with, can see your location.

The next function is “request friend location”. You can ask the other to share their location. If they accepted your request, you can see where they are.

The last function is to create event with location, time, description… and share it to other people who you want to invite. Once they see your invitation, they can accept or deny it. Their accepting will allow the system remind them when the event is upcoming.

## Glossary

**Introduction**

This document is used to define terminology specific to the problem domain, explain terms, which may be unfamiliar to the reader of the use case description or other project documents. Often, this document can be used as an informal data dictionary, capturing data definitions so that use- case description and other project documents can focus on what the system must do with the information.

**Definition**

The glossary contains the working definitions for the key concepts in “Find My Friends App”

**User**

An account belongs to the system. It may be registered by email, phone number, facebook account…

**Friends**

People who appear in your friend list. You can invite them using their email, phone number…

**Map**

The area around user location. It can be appear in several mode such as standard, hybrid, satellite

**Location**

A specific place on the map which in clude longitude and latitude. It can be detected by using GPS.

**Direction**

The way from one place to another place

**Event**

An event is created by user with some informations like: place, time, description, participants...

## Supplementary Specification

**Objectives**

The purpose of this document is to define requirements of the Find My Friends app. This Supplementary Specification lists the requirements that are not readily captured in the use case of the use-case model. The Supplementary Specification and the use-case model together capture a complete set of requirements on the system.

**Scope**

This Supplementary Specification applies to the Find My Friends app, which will be developed by OOAD students.

This specification defines non-functional requirements of the system; such as reliability, usability, performance and supportability, as well as functional requirements that are common across a number of use cases. (The functional requirements are defined in the Use Case Specification).

**References**

Sample K55CA Documentation

**Functionality**

User can interact with multiple other user

**Usability**

The software must be easy to use so that a new user can learn how to use the system within 30 minutes. This is very important requirement.

The user interface has to be nice and clear, using flat design.

**Reliability**

The system shall be available 24 hours a day 7 days a week, with no more than 10% down time.

**Performance**

The latency of get location must be less than 10 seconds and that one of other operations are less than 2 seconds.

The GUI transitions must be smooth. No error of billing.

**Supportability**

None

**Security**

The system only use user’s location for above purposes. Only shared people can see your location.

**Design Constraints**

The system shall provide for IOS device, support with IOS7+, running on iphone, ipad, ipod

## Use-case model

### Login

**Brief Description**

This use case describes how a user logs into the “Find My Friends” app

**Flow of events**

*Basic Flow*

This use case starts when the actor run the app and intend to login to the system. If they logged into the system in the previous session, this use case will be discarded.

1. Login by Facebook account/ email address/ phone number
2. The system validates user’s account and logs the actor into the system.

*Alternative Flows*

**Invalid Name/Password**

If, in the **Basic Flow**, the actor entered an invalid name and/or password, the system displays an error message. The actor can choose to either return to the beginning of the **Basic Flow** or cancel the login, at which point the use case ends.

**Account is saved in the app**

In this situation, the system will automatically log in

**Special Requirements**

None

**Pre-Conditions**

The system has the login screen displayed.

**Post-Conditions**

If the use case was successful, the actor is now logged into the system. If not, the system state is unchanged.

**Extension Points**

None

# Find My Friends Analysis

## Architectural Analysis

### Key Abstractions

#### Key Abstraction Definitions

## UseCase Analysis

### Use-Case Realization Interaction Diagrams

#### Login