|  |
| --- |
| 國立臺灣大學  101學年度第二學期軟體工程設計課程 |
| Software Requirement Specification |
| Shake and Chat |
|  |
| 2017 Fall軟體工程 |
| 指導教授：李允中教授 |
| 成員:  王瀚磊  陳立誠  李旭恩  綦家志  王本奕  高睦修 |

|  |
| --- |
|  |

# Outline

[Outline 2](#_Toc355013563)

[Revision history 3](#_Toc355013564)

[1. System Architecture 4](#_Toc355013565)

[1.1 Introduction 4](#_Toc355013566)

[1.2 Architecture Expression 4](#_Toc355013567)

[2. Functional Requirement 6](#_Toc355013568)

[2.1 Front-end Functional Requirements 6](#_Toc355013569)

[2.2 Back-end Functional Requirements 7](#_Toc355013570)

[3. Interface Requirement 9](#_Toc355013571)

[3.1 External Interface Requirements 9](#_Toc355013572)

[3.2 Internal Interface Requirements 10](#_Toc355013573)

[4. Nonfunctional Requirement 12](#_Toc355013574)

[5. Goal-driven Use Case Diagram 13](#_Toc355013575)

[5.1 Introduction to Goal-driven Approach 13](#_Toc355013576)

[5.2 Objective Statement 14](#_Toc355013577)

[5.3 Goal-driven Use Case Diagram 15](#_Toc355013578)

[5.4 Actor Description and Actor Use Case Matrix 16](#_Toc355013579)

[5.5 Use case specification 17](#_Toc355013580)

[6. Traceability Matrix 36](#_Toc355013581)

[6.1 Traceability Matrix of Requirements V.S Requirements 36](#_Toc355013582)

[6.2 Traceability Matrix of Requirements V.S Use Case 38](#_Toc355013583)

[6.3 Traceability Matrix of Requirements V.S subsystem function 40](#_Toc355013584)

Revision history

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 版次 | 負責人 | 日期 | 變更項目敘述 | 審查者 | 審查日期 |
| 0.1 | 李旭恩  王本奕 | 10/28/17 | 建立SRS文件架構 | 全體組員 | 10/29/17 |
| 0.2 | 王瀚磊 | 10/31/17 | 修改Introduction  新增Interface Requirements | 全體組員 | 10/31/17 |

1. System Architecture

## 1.1 Introduction

隨著資訊科技的進步，現代人的交友範圍從現實逐漸虛擬化，利用網路作為交友平台的軟體如雨後春筍般出現。

我們團隊決定反其道而行，雖然利用網路，但卻希冀能利用網路，使人們能踏出螢幕，重新建立人與人之間的實際互動。

這款在zulip上透過搖一搖手機配對附近之陌生人並使之交流的功能將支援定位系統，讓使用者可以為自己發出「訊號」找尋在一定範圍內一樣在線上活動的使用者，搜尋的範圍可以彈性設定，訊號廣播的時間也很自由，因應安全性上的疑慮，亦可過濾是否要搜尋完全不認識的陌生人，或是只需要搜尋在線的好友名單。專案強調以地點、持續時間為主軸，來進行朋友的搜尋建議。並期望可利用此系統，使線上交友不只是在虛擬平台，更達成人與人之間的真心交流。

專案內容主要包含網頁APP的設計、訊息傳遞設計、資料庫演算法設計、後端管理介面等項目。

## 1.2 Architecture Expression

Following are the main functionalities of the system and system architecture:

|  |  |
| --- | --- |
| Module | Descriptions |
| Geochat Module | Get loacation information of client and response to server , and broadcast to other users nearby. |
| Chat Module | Origianl functionality of zulip. |

1. Functional Requirement

2.1 Front-end Functional Requirements

|  |  |
| --- | --- |
| Geochat Module | |
| FFR1 | **List other user nearby** |
|  | Add a new page of geochat , listing the other users nearby. |
| FFR2 | **Geochat button** |
|  | Add a new button of starting geochat. |

* 1. Back-end Functional Requirements

|  |  |
| --- | --- |
| Geochat Module | |
| BFR1 | **Detect G-sensor** |
|  | Detect G-sensor and start geochat |
| BFR2 | **Return location information to server** |
|  | Use google map API to get loacation and return to server. |
| BFR3 | **Broadcast location information to client** |
|  | Broadcast location information to client. |
| BFR4 | **Chatroom** |
|  | Original Zulip functionality. |

1. Interface Requirements

3.1 External Interface Requirements

|  |  |
| --- | --- |
| EIR1 | Geochat button |
|  | The user can go to geochat by clicking a button. When the user enter the geochat, the user can shake the mobile and chat with all the people nearby. |
| EIR2 | **Geochat list** |
|  | When the user shake the mobile, all the people nearby the user will show on the list. |
| EIR3 | **Chatroom** |
|  | After showing the list of the people nearby, the user can choose one/multiple user for chatting. The chatting page is same as zulip’s original design. |

3.2 Internal Interface Requirements

|  |  |
| --- | --- |
| IIR1 | Upload user’s GPS location |
|  | After the user shaking the mobile, the mobile will send a request to server which means this account allow to be found by other user who is using shake and chat. Besides, the mobile will upload the GPS location to server 1 time per second after shaking, and keep for 5 minutes. |
| IIR2 | **Get the information of the people who is nearby** |
|  | The server will send the response which includes all the information of the user who is nearby. |
| IIR3 | **Disable for being searched by shake and chat** |
|  | Each user can be searched by other user who is using shake and chat for 5 minutes. After 5 minutes, the server will disable the user for being searched by shake and chat. |