REQUIREMENTS SPECIFICATION

This document describes the functional and non-functional requirements of the Crowd-tidbits mobile application. Functional requirements Functional requirements deﬁne the function of the system and its components. Each function of the system is described by a set of inputs, behavior and outputs. This section speciﬁes what the system will be doing.

5.2.1.1.1. System features System features describe the speciﬁc set of characteristics that a system needs to have to achieve the overall functionality of the system. The system must allow users to use the application online and provide full functionality of crowd-tidbits collection, GPS and upload of crowd-tidbits to the server.

* crowd-tidbits collection and storage .
* Geo-Sensor usage.
* Internet connectivity for online usage.
* crowd-tidbits upload capability.
* Integration with server.

Requirement Priority

Requirement Priority describes the level of importance of each requirement on the system. Ranging from low, which the system can work without, to high, which the system cannot work without.

– Low: Not vital to the functioning of the system.

– Medium: Standard system feature, required for the functioning of the system.

– High: Critical feature, system cannot work without it.

5.2.1.1.3. Requirements

Each requirement has requirement number, name, propriety, description, motivation and dependency. The description describes what the requirement is, motivation explains the reason why the requirement is there and dependency.

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| **Req # 1** | |
| **Name** | User login |
| **Priority** | High |
| **Description** | User with valid account should login with username and password to access the system. |
| **Motivation** | This requirement ensures access control on the system. It only allows those with valid username and password to login to the system. |
| **Dependency** | Req 2 |

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| **Req # 2** | |
| **Name** | User registration |
| **Priority** | High |
| **Description** | Users should register before they can access the application. User can only register once on the first time use of the system. |
| **Motivation** | The system allows anyone who downloads the app to register with the system. |
| **Dependency** |  |

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| **Req # 3** | |
| **Name** | Crowd-tidbits collection |
| **Priority** | High |
| **Description** | The user should be able to type in a tidbit and upload it. |
| **Motivation** | This is to allow other registered users on the system to see what is happening around them. |
| **Dependency** | 1,4, 5,6 |

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| **Req # 4** | |
| **Name** | GPS location |
| **Priority** | High |
| **Description** | The user’s device needs to have GPS module installed and functioning, if the GPS is off the use need to activate it. |
| **Motivation** | The GPS functionality is required to enable the application to capture the geolocation of every crowd-tidbit uploaded. |
| **Dependency** |  |

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| **Req # 5** | |
| **Name** | Online use |
| **Priority** | High |
| **Description** | The online use to upload the collected tidbits. |
| **Motivation** | This requirement ensures connection between application and the server. |
| **Dependency** |  |

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| **Req # 6** | |
| **Name** | Asynchronous syncing |
| **Priority** | High |
| **Description** | The upload should run faultlessly and asynchronously on the background, and it shouldn’t rely on the user’s interaction with the device |
| **Motivation** | This important to ensure that user error is eliminated during the uploading process and to enhance the synchronization method and speed of submissions. |
| **Dependency** | Req 5 |

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| **Req # 7** | |
| **Name** | Minimum targeted device |
| **Priority** | High |
| **Description** | The targeted android operating system that the application can run on. |
| **Motivation** | This is to ensure that the application can run on a device that can fully supports its functionality. |
| **Dependency** |  |

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| **Req # 8** | |
| **Name** | Hashing |
| **Priority** | High |
| **Description** | All collected passwords are hashed. |
| **Motivation** | This is to ensure one way security encryption of the password. |
| **Dependency** |  |