**System Test Plan**

**For**

**Helping Hand**

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# Introduction

## Purpose

This document is a test plan for Helping Hand System Testing, produced by the Mental Health Application team. It describes the testing strategy and approach to testing the team will use to verify that the application meets the established requirements of the business prior to release.

## Objectives

* Meets the requirements, specifications and the Business rules.
* Supports the intended goal of notifying a user a contact has dropped in rank and achieves the required standards.
* Satisfies the Entrance Criteria for User Acceptance Testing defined in section 3.2.

# Functional Scope

The Modules in the scope of testing for the Helping Hand System Testing are outlined in Section 3 of the Mental Health Awareness Application SRS document.

# Overall Strategy and Approach

## Testing Strategy

Helping Hand System Testing will include testing of all functionalities that are in scope (Refer Functional Scope Section) identified. System testing activities will include the testing of new functionalities, screen level validations, workflows, functionality access, testing of internal & external interfaces.

## System Testing Entrance Criteria

In order to start system testing, certain requirement must be met for testing readiness. The readiness can be classified into:

* 1. Reading/writing to a comma separated value (CSV) file.
  2. Availability to contact information from user’s cellular device.
  3. Basic algorithm implementation.
  4. User interface to capture calculations.

## Testing Types

### Usability Testing

### The Usability Testing will cover the user interface attributes present in the Helping Hand mobile app. It will test both the accuracy and the usability of the application. The Usability Testing will ensure that the navigation through the app is clear and the application will provide the user with an enjoyable and consistent experience.

3.3.1.1 The font shall be clear and large enough to be read

3.3.1.2 Buttons shall be placed in such a way that it is easy to spot

3.3.1.3 Buttons shall be labeled in a way so their purpose is clear.

3.3.1.4 The slider bar shall be large enough to allow the user to tweak the weight to their liking.

### Functional Testing

The objective of this test is to ensure that each element of the component meets the functional requirements of the business as outlined in the:

* Business / Functional Requirements
* Business rules or conditions
* Other functional documents produced during the course of the project i.e. resolution to issues/change requests/feedback

3.3.2.1 See Circle button will change the view to circle view.

3.3.2.2 Circle View will display contact names.

3.3.2.3 Block Number button will change the view to contacts list view.

3.3.2.4 Weights button will change the view to weight view.

3.3.2.5 A textbox will allow a user to type.

3.3.2.6 A notification to allow system to access user contacts will display once when application is opened for the first time.

## Suspension Criteria and Resumption Requirements

This section will specify the criteria that will be used to suspend all or a portion of the testing activities on the items associated with this test plan.

### Suspension Criteria

Testing will be suspended if the incidents found will not allow further testing of the system/application under-test. If testing is halted, and changes are made to the hardware, software or database, it is up to the Testing Manager to determine whether the test plan will be re-executed or part of the plan will be re-executed.

What would require suspension:

### Algorithm can’t compute without proper information

* 1. Button failure
  2. Permissions notification failure

### Resumption Requirements

Resumption of testing will be possible when the functionality that caused the suspension of testing has been retested successfully.

|  |  |
| --- | --- |
| Suspension Criteria | Resumption Requirement |
| Algorithm cannot compute without proper information | The required information was pulled successfully from contacts and saved properly to CSV file. |
| Button failure | The button is activated; it is now performing the intended function (either triggering the specified method or displaying its respective UI view). |
| Permissions notification failure | The permission notification is displayed. |

# Execution Plan

## Execution Plan

The execution plan will detail the test cases to be executed. The Execution plan will be put together to ensure that all the requirements are covered. The execution plan will be designed to accommodate some changes if necessary, if testing is incomplete on any day. All the test cases of the projects under test in this release are arranged in a logical order depending upon their inter dependency.

**4.1.1 Algorithm**

4.1.1.1 Test Case 1.1

After significant interaction, a communication experience survey will be created for the user that updates the contact's score. This survey will track the communication impact, positivity, and time.

4.1.1.2 Test Case 1.2

When a contact is moved outside of their current circle, a notification will be sent to the user to remind them to communicate with that contact.

4.1.1.3 Test Case 1.3

A contact log will be read from CSV file “Contact Log”.

4.1.1.4 Test Case 1.4

Test score can be calculated by contact log information.

4.1.1.5 Test Case 1.5

Test score and contact name is saved to CSV file names “Contact Score”.

4.1.1.6 Test Case 1.6

Changes in a contact score will be reordered and saved to CSV file named “Contact Score”

4.1.1.7 Test Case 1.7

Contact logs (Facetime, Call, Texts) will be saved to CSV file named “Contact Log”

**4.1.2 Block Number**

4.1.2.1 Test Case 2.1

A number is selected from the contacts list in the app. By clicking that number, that contact, along with all the data associated with that contact is taken out of the algorithm and not used in the Trust calculation.

4.1.2.2 Test Case 2.2

When the application is launched for the very first time, a pop-up notification is displayed requesting permission to access iOS contacts that allows the contacts to be displayed.

4.1.2.3 Test Case 2.3

On subsequent launches of the app, if permissions are not available for iOS services, a pop-up notification request is made when the block number menu is opened requesting access to iOS contacts.

4.1.2.4 Test Case 2.4

Contact names will be saved to a CSV file named “Contacts”

4.1.2.5 Test Case 2.5

When a number has been selected to block, that contact will be removed and updated in CSV file named “Contacts”.

**4.1.3 Change weights**

4.1.3.1 Test Case 3.1

The communication weight values (Call, Text, Facetime) are adjustable within the change weights view.

**4.1.4 User Interface**

4.1.4.1 Test Case 4.1

The “Show Circle” button is clicked. When that button is activated the application displays a new view where the top 5 contacts are displayed on the screen. The top 5 contacts are found with the algorithm.

4.1.4.2 Test Case 4.2

When the app is opened, the app fires up straight to a home screen which displays the app logo and the three main navigation buttons: See Circle, Block Nr, and Weights

4.1.4.3 Test Case 4.3

The iOS service permissions utilized by the app can be accessed and set in the iOS Settings app. Revoking access to one of the permissions from that menu will cause the app to request permission for data access again when the app is launched.

# Traceability Matrix & Defect Tracking

## Traceability Matrix

List of requirements[[1]](#footnote-1), corresponding test cases

|  |  |
| --- | --- |
| Requirement | Test Case |
| 3.2.4, 3.2.5, 3.2.6, 3.2.7 | 1.1 |
| 3.2.3 | 1.2 |
| 3.2.6, 3.2.7 | 1.3 |
| 3.2.6, 3.2.7, 3.2.6, 3.2.10 | 1.4 |
| 3.2.6, 3.2.7 | 1.5 |
| 3.2.6, 3.2.7 | 1.6 |
| 3.2.6, 3.2.7 | 1.7 |
| 3.1.1 | 2.1 |
| 3.2.11 | 2.2 |
| 3.9.1 | 2.3 |
| 3.2.6, 3.2.7 | 2.4 |
| 3.2.6, 3.2.7 | 2.5 |
| 3.2.8 | 3.1 |
| 3.2.1 | 4.1 |
| 3.2.2 | 4.2 |
| 3.8.3 | 4.3 |

## Defect Severity Definitions

|  |  |
| --- | --- |
| **Critical** | The defect causes a catastrophic or severe error that results in major problems and the functionality rendered is unavailable to the user. A manual procedure cannot be either implemented or a high effort is required to remedy the defect.   * 1.3 * 4.2 |
| **Medium** | The defect does not seriously impair system function can be categorized as a medium Defect. A manual procedure requiring medium effort can be implemented to remedy the defect. Examples of a medium defect are as follows:   * 1.1 * 1.2 * 1.4 * 1.6 * 2.1 * 2.3 * 2.4 * 2.5 |
| **Low** | The defect is cosmetic or has little to no impact on system functionality. A manual procedure requiring low effort can be implemented to remedy the defect. Examples of a low defect are as follows:   * 1.5 * 1.7 * 2.2 * 3.1 * 4.1 * 4.3 |

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# Environment

## Environment

* The System Testing Environment will be used in the Mac application Xcode.
  + Requirement 3.3.1 [[2]](#footnote-2)

# Assumptions

* Tester has access to a Mac operating system.
* Tester has contact information available.

# Risks and Contingencies

Potential testing risks are outlined in Section 3.4. It is possible while testing the data pulling aspects of the code that something could cease to function correctly. As a contingency, sample CSV files will be used in the meantime to mimic pulling data from the device itself.

# Appendices

[Mental Health Awareness Application\_SRS\_V2.docx](https://github.com/stoneyg/Mental-Health-Application-Team-1/blob/master/Deliverables/Mental%20Health%20Awareness%20Application_SRS_V2.docx)

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1. Reference to SRS V2 [↑](#footnote-ref-1)
2. Reference to the SRS V2 [↑](#footnote-ref-2)