CA400 Final Year Computer Applications Project

Testing Strategy

ICE - a cross platform personal safety application.

Picture: our ICE application logo

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Version Control

Version	Date	Author	Description
V0.1	01/04/20	Catherine	Draft
V0.2	04/04/20	Hannah	Draft
V0.3	06/04/20	Catherine	Draft

Table of Contents

1. Introduction

The purpose of this document is to outline the approach to testing the ICE mobile application. This document will highlight the areas covered by the testing and identify any functionality that will not be covered as part of this test cycle.

The purpose of this project is to verify the suitability of the ICE application for production release.

2. Scope

This section outlines at a high-level the functionality included as part of the scope of the ICE application

2.1 In Scope

The following systems and products will be covered as part of the ICE Project:

1. Registration
2. OTP verification
3. Medical Profile
4. Profile Picture
5. Safe Word create
6. Safe Word activated SOS
7. Shake Device activated SOS
8. fake call recording
9. fake call activation
10. 112 texting
11. change password
12. Delete Account
13. Activity logs
14. Circle join
15. Circle create
16. Messenger
17. Messenger listener
18. Social Media Feed
19. Follow me sessions
20. Safe Zone Add
21. Circle Map
22. Circle Manager

23. Follow me track
24. Contact us

2.2 Out of Scope
The following systems and functionality will not be included as part of the test plan:
1. Web application

3. Test Plan
The below section identifies the types of testing and the test scenarios that will be executed as part of the submission.

3.1 Smoke Testing
Executed By: ICE Development Team
Smoke testing verifies the build is ready for testing, the ICE team will execute a small number of key tests to ensure the core functionality and navigation tools are available for further testing to progress.

3.2 Unit Testing

3.3 System Testing
Executed By: The IS ICE Team
System testing is when the complete and integrated system is tested. This will be done by testing each component and the end to end process to ensure the application responds as stated within our user manual.

The following test scripts are required:
1. Registration
2. Verify User
3. Fake Call Recording
4. Fake Call Activation
5. 112 SMS functionality
6. Social Media
7. Settings
8. SOS mode
9. Activity Logs
10. Joining a circle
11. Creating a circle
12. Messenger Listener

13. Messenger
14. Safe Word Add
15. Safe Zone Add
16. Follow Me Route
17. Follow Me Track
18. Contact Us

4   Testing Cycles

The test plan for the ICE application is to run through several testing cycles in line with the submission date, full coverage of all test scenarios identified should be executed across the following test cycles:

Cycle 1 – Smoke Testing
A smoke test will be executed to ensure that the initial release/build is ready for testing. This will include a subset of the test cases, on the basis that this is completed successfully we will move to the next cycle testing – Unit Testing.

Cycle 2 – Unit Testing
The purpose of this testing is to verify the individual components have been built and compiled correctly. Peer reviews were done in order to ensure this.

Cycle 3 – System Testing
This cycle will focus on the systems testing of the changes outlined in the technical specification, Requirements and any workflows provided. These test cases will include end to end test cases based on the requirements.

Cycle 5 –Regression Testing
A final regression test will be executed after all defect fixes have been made to ensure that no fixes have impacted any of the existing functionality.

5   Test Data & Evidence

Anonymised data will be used to complete all test scripts and that will be stored within the firebase database. All passwords used will be encrypted.

Test Evidence includes test scripts and screenshots and will be stored within pdf files within individual folders named according to the testing type, which are located within the testing_documents on gitlab. Each pdf contains the test scripts followed by the evidence displayed in a table. The peer reviews will be tracked using Trello.

UI_testing	adding UI progression report & corresponding fixtures	3 weeks ago
bug_reports	adding bug report 1	1 month ago
regression_tests	Verify user regression complete	3 weeks ago
system_tests	adding my last batch of regression tests & their correspon...	3 weeks ago
Sanity_tests.pdf	Sanity tests for regression complete	3 weeks ago
smoke_testing.pdf	renaming folder where test documents are stored	4 weeks ago

UI testing folder:

cycle_1	adding my last batch of regression tests & their corres...	3 weeks ago
cycle_2	adding UI progression report & corresponding fixtures	3 weeks ago
UI_progression_report.pdf	adding UI progression report & corresponding fixtures	3 weeks ago

6   Test Milestones

This Table outlines the key milestones for testing

Milestones	Executed By	Start Date
Test Plan Complete	Catherine Hannah	06/04/2020
Prepare Test Cases	Catherine Hannah	09/04/2020
Smoke Test Execution	Catherine	08/04/2020
System Test Execution	Catherine Hannah	12/04/2020
Unit Test Execution	Catherine Hannah	20/04/2020
Regression Test Execution	Catherine Hannah	28/04/2020
User Acceptance Test Execution	Hannah	05/05/2020