Unlock:York

Final Testing Report and Summary

Version 1.0

06/06/18

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Document Control

Version	Date	Sections changed	What was changed
1.0	06/06/18	-	-

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1 Introduction

The full testing plan (FTIP2/0) was carried out on both the kiosk and the mobile applications, during development, some changes had to be made to the plan to reflect added/removed user stories, and realisations that some tests were not appropriate. This document outlines the findings and outcomes of the testing done on the app.

2 Kiosk Test Analysis

2.1 Sub-Story Tests

- 34 sub-story kiosk tests were carried out.
- 9% (3) of these were JUnit tests.
- 91% (31) of these were observational (visual) tests.
- The proportion of JUnit tests here seems surprising at first, but can be explained due to the nature of the application. The fact that so many tests were GUI based and involved mouse clicks made JUnit testing very difficult.
- 14(41%) of the tests failed and produced bugs.
- Any sub-stories that produced failures were investigated and all were successfully fixed such that they passed the tests.
- All sub-story tests were passed and the units were declared ready to be progressed to integrated testing.

2.2 Integrated Tests

- 8 integrated tests were carried out.
- 0% of these were JUnit tests.
- 100% of these were observational (visual) tests.
- This is again due to the above reasoning of the tests being very GUI based and involving mouse clicks, coupled with the fact that integrated tests are by nature more complex and hence harder to write coded tests for.
- 38% (3) of these produced bugs and errors.

- This is as expected, lower than the number of failed tests at sub-story level, because the majority of major bugs will be found at the earlier testing stage.

- All bugs were fixed until all integrated tests could be passed, and the app was then declared suitable to be moved onto

2.3 System Tests

- 18 System tests were performed to thoroughly test the final build.

- 100% of these took the form of Black Box Visual tests

- This is expected as system testing is from the point of view of a user of the app so must be purely visual.

- 17% (3) of tests failed at this stage.

- The failures were due to errors in content and xml rather than the java source code.

- Any errors were fixed and tests ran again to completion.

- System has passed the pass/fail criteria defined and hence the Android build has been shown to be a robust build.

3 Mobile Test Analysis

3.1 Sub-Story Test Summary

- 36 sub-story mobile tests were carried out.

- 53% (19) of these were Android Instrumentation (android unit tests) Tests.

- 47% (17) of these were observational (visual and aural) tests.

- 8 of these sub-story tests produced failures after completing code for the sub-story due to errors and bugs.

- All failures were rectified and then the units were declared ready to be progressed to integrated testing.

3.2 Integrated Tests

- 19 integrated mobile tests were carried out.

- 47% (9) of these were Android Instrumentation Tests.
- 53% (10) of these were observational (visual and aural) tests.
- This was expected as the proportion of White Box tests should decrease at this stage.
- 3 of these integrated tests produced failures.
- This low number was expected as most bugs in code were found and fixed during the test-driven sub-story stage.
- Any failures were rectified and then the app was declared to be ready for final Black Box user-oriented System Tests.

3.3 System Tests

- 28 System tests were performed to thoroughly test the final build.
- 100% of these took the form of Black Box Visual tests
- This is expected as system testing is from the point of view of a user of the app so must be purely visual.
- 6 tests failed at this stage, which was unexpected, but this was found to be due to testing for features that were not able to be implemented. Only 1 of the 6 failures was due to a coding error and this was a small,easy fix
- System has passed the pass/fail criteria defined and hence the Android build has been shown to be a robust build.