Testing Documentation

Test Strategy

Stakeholders and their goals

1. Project manager: achieve acceptable unit test coverage and create manual tests in a timely manner.
2. Developer: achieve acceptable unit test coverage to assist with regression testing.
3. Test users: have a comprehensive manual test suite that is easy to follow with clear instructions.
4. End user: wants a stable, well tested product

Available means

The testing team has available to them the following resources:
1. Laptop PC running Windows 10 (Intel i3 - 7100 @ 2.4GHz, 4GB RAM)
2. Eclipse IDE
3. JUnit 4
4. Four budgeted man-hours
5. One test user
6. One test developer]

Strategy

High code coverage is desirable, but not feasible with the given resources. The lack of a mocking framework will make it very hard to achieve high coverage since much of the code is devoted to the GUI. The mitigation to this is to use thorough manual testing to determine that all the GUI elements are working as required. We will also try to reach 100% statement coverage on the non-GUI parts of the code.

Test Plan

Requirements

Functional requirements

REQ	Description
GUI-1.0	The user should be greeted by a main menu
GUI-1.1	The image of a "hanging man" should be displayed to the user to indicate the number of incorrect guesses
PLAY-1.0	The number of guesses left should be displayed to the user
PLAY-1.1	The number of letters to guess should be displayed to the user
PLAY-1.2	The user should be able to select from at least 2 different categories that the puzzle will be randomly picked from

Non-functional requirements

There are no non-functional requirements specified.

Plan Overview

Testing will happen on the following levels:
1. Automated unit testing
2. Manual Testing

The result will be determined to be acceptable if all of the tests pass. If any test does not pass, that feature will be prioritized in the next iteration of development. There should also be >90% statement coverage on non-GUI classes.

The test developer is responsible for reaching desired coverage goals and reporting results of automated tests and the test user is responsible for running the manual test cases and reporting their results.

Manual tests and test results can be found in the document "manualTestsAndResults.pdf"