

Testing report

Unit Tests

Our unit tests were conducted using JUnit (<http://junit.org/junit4>), they can be found in the test gradle package (<https://github.com/TeamFractal/Roboticon-Quest/tree/v1.0.1/test>). The full plan and results of these tests can be found at <http://teamfractal.github.io/assessment2/Unittests.pdf>

We tested all of the features in the backend classes, and almost all of these tests succeeded. This is because we were using Test Driven Development for this part of the implementation, and so we were constantly ensuring that our code passed the unit tests as we wrote it.

The one Unit Test which does fail is 22, which cannot currently pass as the nextPhase() method it tests relies on an instantiated gameScreen, which is not currently the case as the GUI is not fully loaded.

GUI Tests

To ensure that the GUI behaved correctly and as expected, we created a list of test scenarios that describe actions that the player should be able to complete, how the GUI should behave when they are completed, and how it should behave when they are unable to be completed. We have so far only written tests for those features that we have implemented at this stage, as the GUI behaviour for unimplemented features is not yet fully defined. The full plan and results of these tests can be found at <http://teamfractal.github.io/assessment2/GUITesting.pdf>

All of these tests pass, so we are confident that our GUI, as implemented so far, behaves as expected. We believe this tests are complete because they cover all aspects of the GUI. We believe these tests give us the correct results because we ran them several times as we were developing the code.

Requirements Acceptance Tests

We regularly tested our implementation against all of our requirements during development to continuously ensure that our it was meeting the requirements. The latest results of these tests can be found at <http://teamfractal.github.io/assessment2/RequirementsTesting.pdf>

Some of these tests fail at the current implementation, but this is due to features which are yet to be implemented (this is noted by the relevant tests). Specifically, the requirements which are not yet implemented at all are 1.2.1, all of 3.x.x, 4.1.1, 4.2.1, 6.1.2, 7.1.4, 8.1.2, all of 9.x.x and all of 10.x.x. There is one requirement which has so far only been partially implemented (and so the acceptance test also currently fails), which is 8.1.1. To enable these tests to pass, the remaining features need to be fully implemented.

All the features that have been implemented so far pass the relevant acceptance tests, so we are confident that all these features conform to the requirements.