

Testing Plan

The aim of this testing plan is to lay out how tests will be structured and how they will be used to display that our code effectively implements the required functionality.

Unit Tests

Initially we will write stub Junit tests for what needs to be tested and implemented, This will also give us the ability to help map out what needs to be done for the function/ part of the code we are writing. As more implementation and functionality is implemented, team members will likely have a greater scope of the code and thus should add more unit tests. Additionally, when refactoring occurs these unit tests will be essential for ensuring the functionality of the code is not compromised.

Integration Tests

Once the majority of the unit tests have been implemented we will aim to add the integration tests. These will aim at testing the dependencies between the classes and code that we wrote. Ideally the coupling of our system will be as small as possible, but obviously this is impossible. So we will identify the dependencies in our code and write these tests to ensure that the different parts of our code work together without harming the functionality of the code.

System Tests

The system tests we write shall be used as black box tests to check the input and output of the whole system. The stub tests for this can be written alongside the unit tests but a lot of them require basic functionality implemented (like movement and dungeon response) to already be written. These tests will not look at the internal workings of the code, only the input and produced output of said tests.

Usability Tests

The tests for usability will be conducted throughout the writing of code and tests to get a visual representation of the implemented. Additionally, it will also ensure that the code functions as intended with the front end. Lastly, once all the desired functionality and tests have been written, it will be a good test to see how the whole implementation of all the parts of the code function with all other ones.