**Executive Summary – Test Report**

Coding Project: Mummy Maze Plus

**[Group 9]**

*Basil Isaac, Bradley Robinson, Kanishka Garg, Shubham Jain*

We have created a comprehensive testing plan for the Mummy Maze Plus. Taking the requirements as a benchmark, the developed software shall be validated, i.e. the process of evaluating software during or at the end of the development process to determine whether it satisfies specified requirements. For this purpose, testing plays a crucial role in a software development cycle. Although, we were able to pass most of the tests, however, certain faults were also detected using when trying out different testing strategies.

We conducted the following types of testing on the developed game and test cases for all the enumerated testing have been included in the report:

1. **Unit Testing**

We have tested four components of the game serving the purpose of different functionality in the game.

* *MummyAI*
* *Graphics*
* *PlayerMovementSpecialCell*
* *MovementPlayerVillain*

Unit testing is conducted as a white-box testing, encompassing the Path testing, Equivalence testing, and Boundary testing.

1. **Integration Testing**

Unit testing focuses in individual components. Integration testing focuses on small groups of components. Two or more components are tested together in this type of testing.

We have selected to conduct **Big Bang Testing** which is a **Horizontal Integration** testing strategy. The reason for selecting this strategy is because the size of our system is small and it is easy to test a small system using this strategy.

|  |  |  |  |
| --- | --- | --- | --- |
| Total Number of Test Cases | Total Number of Test Cases Passed | Total Number of Test Cases Failed | Total Number of Test Cases ( No Run ) |
| 15 | 15 | 0 | 0 |

1. **System Testing**

We have tested out the whole integrated system to verify that all the requirements of the game are met.

|  |  |  |  |
| --- | --- | --- | --- |
| Total Number of Test Cases | Total Number of Test Cases Passed | Total Number of Test Cases Failed | Total Number of Test Cases ( No Run ) |
| 41 | 38 | 2 | 1 |

1. **User Acceptance Testing**

This testing is used to verify that a solution works for the customer. We have tried to simulate test cases from the client’s point of view.

|  |  |  |  |
| --- | --- | --- | --- |
| Total Number of Test Cases | Total Number of Test Cases Passed | Total Number of Test Cases Failed | Total Number of Test Cases ( No Run ) |
| 14 | 13 | 1 | 0 |

Apart from these functional testing, we also conducted performance testing, by opening multiple consoles, and usability testing, by trying out game at different OS platforms, just to meet some of the non-functional requirements associated with the game.

**Overall Test Results for Mummy Maze Plus**

After conducting all these tests under various categories, we have successfully passed around 97.5 % of the test cases.

Testing is a crucial part of any software product, since even a small bug can render the whole product useless during live implementation. Hence, the importance of testing is no lesser than the development of the product. Using different test strategies, let us know about the system being robust from multiple levels of granularity.