**Project:** Report for 3-Dice Game

**Date:**22nd of March 2025

**Tester:** Sorin Aurelian Sofronov (E4301556)

**Testing type: Black Box Testing**

1. **Objective**

          Black box testing was conducted on the 3-dice game developed using Pygame.

          The  objective of this testing was to evaluate the game’s functionality, input handling, and  expected outputs without analyzing the internal code structure.

 Various test cases were executed to ensure the game operates as intended.

1. **Test Environment**

Operating System : Windows

Python Version : 3.12.2

IDE : Visual Studio Code

               Hardware: Standard PC/Laptop with a keyboard and mouse

               Testing Tools: Manual testing and debugging tools

1. **Test Scenarios**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test case ID** | **Scenarios description** | **Input / Action** | **Expected Output** | **Result** | **Status** |
| TC\_01 | Game Launch | Run the script | Game window opens with 2 buttons, of start and quit game | As expected | Pass |
| TC\_02 | Rolling dice | Click R “Roll” button | “Rolling word appears” , 3 seconds for suspense . | As expected | Pass |
| TC\_03 | Randomization check | Multiple rolls | Dice values should be different each time | As expected | Pass |
| TC\_04 | Score calculation | Roll specific values | Correct score displayed based on roll conditions | As expected | Pass |
| TC\_05 | UI Display | Resize window | UI should remain properly aligned | Misalign slightly | Fail |
| TC\_06 | Exit game and Invalid input | Click Q or Quit button , Try non supported inputs | Game should terminate without errors , and error input aperas asking player to input the right input | As expected | Both Pass |

1. **Defect Tracking**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Defect ID | Test case | Description of issue | Severity | Status |
| D\_01 | UI | UI should remain properly aligned | Low /Medium | Fail  Not rectified |
| D\_02 | Function | No effect after either parties end up without any money , game does not finish. | medium | Fail not rectified |
|  |  |  |  |  |

1. **Conclusion**

The black box testing process confirmed that the 3 dice game functions well in most scenarios , with only minor UI and performance issues .Fixing this areas will furthe enhance gameplay and user experience.Future tests should include compatibility checkson diferent screen resolutions and input devices.

Shape

**Recommendations**

* **Visual Feedback:** Optimize elements scale corectly when the window is resized , also introducing the actual dice roll effect will visually improve the game.
* **Potential Improvement: consider adding visual or audio effects for dice rolls to improve engagement.**