**Project:** Roulette

**Date:** 22nd of March 2025

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**Testing type: Black Box Testing**

1. **Objective**

To use Black Box testing to find and fix any issues with the Roulette game project to ensure it is in working condition before it is presented to potential investors.

1. **Test Environment**

Operating System : Windows

Python Version : 3.11.2

IDE : Python IDLE

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 game showing, roulette wheel on 0 and blank input boxes. | As expected | Pass |
| TC\_02 | Click Number Button | Left Click the Numbers Button | The Bet Number Input box should highlight and allow you to type. | As expected | Pass |
| TC\_03 | Click 1st 12 button | Left Click the 1st 12 button | The Bet Input box should highlight and allow you to type. | As expected | Pass |
| TC\_04 | Click 2nd 12 button | Left Click the 2nd 12 button | The Bet Input box should highlight and allow you to type. | As expected | Pass |
| TC\_05 | Click 3rd 12 button | Left Click the 3rd 12 button | The Bet Input box should highlight and allow you to type. | As expected | Pass |
| TC\_06 | Click Red button | Left Click the Red button | The Bet Input box should highlight and allow you to type. | As expected | Pass |
| TC\_07 | Click Black Button | Left Click the Black button | The Bet Input box should highlight and allow you to type | As expected | Pass |
| TC\_08 | Input Numbers in range in the Bet Number Box | Type A number between 0 and 36 in the Bet Number Box | The Bet Number Box should show the number typed and when enter is hit the Bet Input Box should highlight | As expected | Pass |
| TC\_09 | Input Numbers out of range in the Bet Number Box | Type a number outside of the range of 0 and 36 and press enter | The Loop should reset and an error message should be printed saying “please use a number in range” | The Bet Input Box highlights and the wheel spins but the game doesn’t crash | Fail |
| TC\_10 | Input Letters in the Bet Number Box | Type any letter or phrase in the bet number box | The Loop should reset with an error message being printed saying “please use an integer” | The Bet Input Box highlights and the wheel spins but the game doesn’t crash | Fail |
| TC\_11 | Input a Number, in range of the funds the player has, in the Bet input box | Type any bet in the Bet input box that is in the range of money that the player has. | The Wheel should spin and if the wheel lands on any number or colour the player has bet on money is awarded to the player, otherwise their bet is removed from their total. | As Expected, though there is an odd character in the input box before the bet is typed. | Semi-Pass |
| TC\_12 | Input a Number, out of the range of the funds the player has, in the Bet input box | Type any bet in the Bet Input box that is greater than the amount of money that the player has. | The Loop should reset with the error message “insufficient funds” being displayed in the IDLE. | The game crashes with the error: pygame.error: video system not initialized | Fail |
| TC\_13 | Input a Letter in the Bet input box | Type any letter in the bet input box | The Loop should reset with an error saying “please type an integer” | The game crashes with the error: ValueError: invalid literal for int() with base 10: 'asd' | Fail |
| TC\_14 | Press the Leave Table button | Click the Leave Table button | The game closes and the money earned is sent to the correct json file | As expected | Pass |

1. **Defect Tracking**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Defect ID | Test case | Description of issue | Severity | Status |
| D\_01 | Bet Input Box | There is an unknown symbol in the Bet input box before the player types in it | Low | Fail  Not rectified |
| D\_02 | Bet Input Box | Game Crashes when putting a number over the amount of money the player has | High | Fail Not rectified |
| D\_03 | Bet Input Box | Game Crashes when putting anything that isn’t an integer in the Bet Input box | High | Fail Not rectified |

1. **Conclusion**

The testing showed that the game, while it functions correctly in most scenarios, still has improvements that need to be addressed before presenting, like the lack of error messaging for incorrect inputs, and some critical issues.

**Recommendations**

* Fix the issues in the Defect Tracker
* Add error messages to the inputs and prevent the loop from going when there is an error
* Add missing gambling options.
* Add on screen messages, to help the player know how to interact with the game