



TEST CASES AND REQUIREMENTS TEST COVERAGE REPORT

Version 1.1

Prepared by Team SportZ

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VERSION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	Lim Sheng Zhe	27/3/2022			Initial Draft
1.1	Chia Songcheng	9/4/2022			Updated Pause , Settings , Credits test cases

TC-1

Test Case ID: TC-1	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Open game	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Player able to open game application	
Pre-conditions: Player must have the game application executable file "SportZ.exe"	
Dependencies:	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Open "SportZ" executable file	SportZ.exe	Player should see the game main menu	Game main menu displayed after loaded	Pass	

Post-conditions:

TC - 2

Test Case ID: TC-2	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Start game	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Player able to start game	
Pre-conditions: Player must have opened game application	
Dependencies: TC-1	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on "Start button" on main menu		Player should see the actual game scene.	Player is redirected to the game scene.	Pass	

Post-conditions:

The game character starts moving to the right upon starting game

TC - 3

Test Case ID: TC-3	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Using the control keys to control the game character	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Player able to control the game character	
Pre-conditions: Player must have started the game	
Dependencies: TC-2	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Press Spacebar		Player should see the game character jump and fall back to ground	Game character jumps right after spacebar is pressed and falls back to ground	Pass	

Post-conditions:

TC - 4

Test Case ID: TC-4	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Performing the attack action	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Player can perform attacks on game character	
Pre-conditions: Player must have started the game	
Dependencies: TC-2	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click left mouse button		Player should see game character emit bullets to attack	Circle shaped bullets emitted from game character	Pass	

Post-conditions:

TC - 5

Test Case ID: TC-5	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Object spawns on the platform	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Game object (coin, zombie, obstacle and power up) can be spawn on the platform in game	
Pre-conditions: Player must have started the game; Jump functions properly	
Dependencies: TC-2; TC-3	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Press Spacebar to jump and survive as long as possible		Player should see game object (coin, zombie, obstacle and power up) spawn along the way of playing	Coins and power up spawn right after starting the game. Zombie and obstacle spawn after 5 seconds of playing	Pass	

Post-conditions:

TC - 6

Test Case ID: TC-6	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): Medium	Test Designed date: 24/3/2022
Test Title: Picking up invincibility power-up	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Player must be able to pick up invincibility power-up and game character must be able to enhance by invincibility effect	
Pre-conditions: Player must have started the game; Invincibility power-up item spawn in game	
Dependencies: TC-2, TC-5	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Approach invincibility power up once spawn on platform		Player should see game character become invincible for a short period of time after touching invincibility power-up	A yellow circle effect appears around the player after touching invincibility power-up. No health point deduction occur during this time interval	Pass	

Post-conditions:

TC - 7

Test Case ID: TC-7	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): Medium	Test Designed date: 24/3/2022
Test Title: Picking up magnet power-up	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Player must be able to pick up magnet power-up and game character must be able to enhance by magnet effect	
Pre-conditions: Player must have started the game; Magnet power-up item spawn in game	
Dependencies: TC-2, TC-5	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Approach magnet power up once spawn on the platform		Player should see the coin nearby fly towards the game character after touching the invincibility power-up.	A blue circle effect appears around the player after touching the invincibility power-up. Coins around the game character fly towards it during this time interval	Pass	

Post-conditions:

Number of coins collected increases after game character touches the coin that flew to it

TC - 8

Test Case ID: TC-8	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): Medium	Test Designed date: 24/3/2022
Test Title: Getting damage from obstacle and zombie	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Obstacle and zombie can damage the player and lead to health deduction	
Pre-conditions: Player must have started the game; Obstacle and zombie spawn in-game	
Dependencies: TC-2, TC-5	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Approach obstacle once spawn on platform		Player should see health point deduction after touching obstacle	Health bar which placed on the top right of the scene deducted after touching obstacle	Pass	
2	Approach zombie once spawn on platform		Player should see health point deduction after touching zombie	Zombies move towards game characters. Health bar placed on the top right of the scene deducted after touching zombie	Pass	

Post-conditions:

TC - 9

Test Case ID: TC-9	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Jumping into kill box and die	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Game over once player enter kill box region	
Pre-conditions: Player must have started the game	
Dependencies: TC-2	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Control the game character jump off the platform		Player should see the game over. A window will show up to prompt the player to exit the game or run again	A small menu pops up with the Run again and Quit button	Pass	

Post-conditions:

TC - 10

Test Case ID: TC-10	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Die upon losing last health	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Game over once player fail to secure the last health point	
Pre-conditions: Player must have started the game; Obstacle and zombie spawn in-game	
Dependencies: TC-2, TC-5	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Approach obstacle or zombie multiple times once spawned on the platform until all the health points deducted		Player should have the game over. A window will show how many coins the user has collected and to prompt the player to exit the game or run again	A small menu pops up with the Run again and Quit button	Pass	

Post-conditions:

TC - 11

Test Case ID: TC-11	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Restart game	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Restart after game over	
Pre-conditions: Game over due to enter kill box or losing last health point	
Dependencies: TC-9, TC-10	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click the Run again button after game over		Player should see game restarted	Game restarted. The score reset to zero and all health points were refilled.	Pass	

Post-conditions:

TC - 12

Test Case ID: TC-12	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Earning score	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Game score must be accumulated continuously along to way	
Pre-conditions: Player must have started the game; Jump functions properly	
Dependencies: TC-2, TC-3	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Press Spacebar to jump and survive as long as possible		Player should see game score increases	Number of the game score which is placed on the top left increases continuously.	Pass	

Post-conditions:

TC - 13

Test Case ID: TC-13	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Collecting coin	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Player must be able to pick up coin	
Pre-conditions: Player must have started the game; Coins spawn in game	
Dependencies: TC-2, TC-5	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Approach coin spawn on the platform		Player should see the number of collected coins increases	Number of collected coins which placed on the top right increases upon game character touches the coin	Pass	

Post-conditions:

Collected coins are added to the total collected coins after the game ends. The new total collected coins are updated locally.

TC - 14

Test Case ID: TC-14	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Using the player attack to kill the zombie	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Player must be able to attack and kill the zombie in game	
Pre-conditions: Player must have started the game; Player can perform attack; Zombies spawn in game	
Dependencies: TC-2, TC-4, TC-5	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Approach zombies that spawn on the platform but avoid touching them		Player should see zombies move towards game character	Zombies move towards the game character when the game character is near them.	Pass	
2	Press left mouse click		Player should see zombies die and the game score increases by 500.	Zombie explodes and then disappears after being touched by player bullets. The number of the game score which is placed on the top left increases by 500.	Pass	

Post-conditions:

TC - 15

Test Case ID: TC-15	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): High	Test Designed date: 24/3/2022
Test Title: Game theme transition	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Game theme must transit after 10 seconds of playing	
Pre-conditions: Player must have started the game; Jump functions properly; Zombies spawn in game	
Dependencies: TC-2, TC-3, TC-5	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Press Spacebar to jump and survive at least 10 seconds		Player should see the game background and skin of zombies transition to the badminton theme.	The game background transitions to badminton. Newly spawned zombies transit to a zombie holding a badminton racket.	Pass	

Post-conditions:

TC - 16

Test Case ID: TC-16	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): Medium	Test Designed date: 24/3/2022
Test Title: Purchase and upgrade the Immortality Enhancement from the shop	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Player	
Pre-conditions: Player must have opened the game application. Player must have enough coin balance.	
Dependencies: TC-1	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on "Shop" button on main menu		Player should see the shop page	Player is directed to shop page	Pass	
2	Click on the only button with the number of coins needed for an upgrade on Immortality section on shop page		Player should see the level of Immortality enhancement increases	Number that indicates the level of Immortality enhancement increases after button click	Pass	

Post-conditions:

Interval of immortality effect after losing a health point increases.

TC - 17

Test Case ID: TC-17	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): Medium	Test Designed date: 24/3/2022
Test Title: Purchase and upgrade the Coin Master Enhancement from the shop	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Player	
Pre-conditions: Player must have opened the game application. Player must have enough coins balance.	
Dependencies: TC-1	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on "Shop" button on main menu		Player should see the shop page	Player is directed to shop page	Pass	
2	Click on the only button with the number of coins needed for an upgrade on Coin Master section on shop page		Player should see the level of Coin Master enhancement increases	Number that indicates the level of Coin Master enhancement increases after button click	Pass	

Post-conditions:

Multiplier of coins collected at the end of each run increases.

TC - 18

Test Case ID: TC-18	Test Designed by: Lim Sheng Zhe
Test Priority (Low/Medium/High): Medium	Test Designed date: 24/3/2022
Test Title: Purchase and upgrade the Arcade Expert Enhancement from the shop	Test Executed by: Lim Sheng Zhe
NFR Tested: N/A	Test Execution date: 27/3/2022
Description: Player	
Pre-conditions: Player must have opened the game application.	
Dependencies: TC-1	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on "Shop" button on main menu		Player should see the shop page	Player is directed to the shop page	Pass	
2	Click on the only button with the number of coins needed for an upgrade on Arcade Expert section on shop page		Player should see the level of Arcade Expert enhancement increases	Number that indicates the level of Arcade Expert enhancement increases after button click	Pass	

Post-conditions:

Interval of all power-up boosts increases.

TC - 19

Test Case ID: TC-19	Test Designed by: Chia Songcheng
Test Priority (Low/Medium/High): Medium	Test Designed date: 9/4/2022
Test Title: Adjust music volume	Test Executed by: Chia Songcheng
NFR Tested: N/A	Test Execution date: 9/4/2022
Description: Player adjusts volume	
Pre-conditions: Player must have opened the game application.	
Dependencies: TC-1	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on "Settings" button on main menu		Player should see the settings page	Player is directed to the setting page	Pass	
2	Adjust music volume according to liking		Player should see the slider increase/decrease	Music volume should be adjusted according to the increase/decrease of the slider.	Pass	

Post-conditions:

TC - 20

Test Case ID: TC-20	Test Designed by: Chia Songcheng
Test Priority (Low/Medium/High): Medium	Test Designed date: 9/4/2022
Test Title: Confirm music volume	Test Executed by: Chia Songcheng
NFR Tested: N/A	Test Execution date: 9/4/2022
Description: Player selects confirm from settings menu	
Pre-conditions: Player must have opened the game application.	
Dependencies: TC-19	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on "Confirm" button on settings page		Player should be directed to main menu page with updated volume	Player is directed to main menu page with updated volume	Pass	

Post-conditions:
Music volume is updated

TC - 21

Test Case ID: TC-21	Test Designed by: Chia Songcheng
Test Priority (Low/Medium/High): Medium	Test Designed date: 9/4/2022
Test Title: Cancels music volume	Test Executed by: Chia Songcheng
NFR Tested: N/A	Test Execution date: 9/4/2022
Description: Player cancels music volume update	
Pre-conditions: Player must have opened the game application.	
Dependencies: TC-19	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on "Cancel" button on settings page		Player should be directed to main menu page with previous volume	Player is directed to main menu page with previous volume	Pass	

Post-conditions:
Previous music volume configuration is loaded

TC - 22

Test Case ID: TC-22	Test Designed by: Chia Songcheng
Test Priority (Low/Medium/High): Low	Test Designed date: 9/4/2022
Test Title: View Credit	Test Executed by: Chia Songcheng
NFR Tested: N/A	Test Execution date: 9/4/2022
Description: Player views credit page	
Pre-conditions: Player must have opened the game application.	
Dependencies: TC-1	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on "Credits" button on main menu		Player should see the credits page	Player is directed to the credits page	Pass	

Post-conditions:

TC - 23

Test Case ID: TC-23	Test Designed by: Chia Songcheng
Test Priority (Low/Medium/High): Low	Test Designed date: 9/4/2022
Test Title: Pause	Test Executed by: Chia Songcheng
NFR Tested: N/A	Test Execution date: 9/4/2022
Description: Player selects pause button after game has started	
Pre-conditions: Player must started the game	
Dependencies: TC-2	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on "pause" button while game is running		Player should pause. A window will show up to prompt the player to continue , restart or exit the game	Game is paused , 3 icons are displayed corresponding to continue , restart or exit.	Pass	

Post-conditions:

TC - 24

Test Case ID: TC-24	Test Designed by: Chia Songcheng
Test Priority (Low/Medium/High): High	Test Designed date: 9/4/2022
Test Title: Restart game from pause	Test Executed by: Chia Songcheng
NFR Tested: N/A	Test Execution date: 9/4/2022
Description: Restart from pause	
Pre-conditions: Select restart icon after pausing game	
Dependencies: TC-23	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click the restart button while paused		Player should see game restarted	Game restarted. The score reset to zero and all health points were refilled.	Pass	

Post-conditions:

TC - 25

Test Case ID: TC-25	Test Designed by: Chia Songcheng
Test Priority (Low/Medium/High): High	Test Designed date: 9/4/2022
Test Title: Restart game from pause	Test Executed by: Chia Songcheng
NFR Tested: N/A	Test Execution date: 9/4/2022
Description: Continue from pause	
Pre-conditions: Select continue icon after pausing game	
Dependencies: TC-23	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click the continue button while paused		Player should see game resume	Game resumed with before paused score and health.	Pass	

Post-conditions:

TC - 26

Test Case ID: TC-26	Test Designed by: Chia Songcheng
Test Priority (Low/Medium/High): High	Test Designed date: 9/4/2022
Test Title: Quit game from pause	Test Executed by: Chia Songcheng
NFR Tested: N/A	Test Execution date: 9/4/2022
Description: Quit from pause	
Pre-conditions: Select quit icon after pausing game	
Dependencies: TC-23	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click the quit button while paused		Player should see main menu page	Player is directed to the main menu page	Pass	

Post-conditions:

TC - 27

Test Case ID: TC-27	Test Designed by: Chia Songcheng
Test Priority (Low/Medium/High): High	Test Designed date: 9/4/2022
Test Title: Quit game from main menu page	Test Executed by: Chia Songcheng
NFR Tested: N/A	Test Execution date: 9/4/2022
Description: Quit from main menu	
Pre-conditions: Select quit icon after launching game	
Dependencies: TC-2	

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click quit button after returning to main menu page		Player should exit the application	Application is closed	Pass	

Post-conditions: