Requirement ID:	Requirement:	Verified By:
1.0	Starting a new game	
1.1	Display Game Configuration	Test 1, Step 8
1.2	Ask user if they would like to change configuration	Test 1, Step 6
1.3	Store new configuration	Test 1, Step 7
1.4	Create and set up a scorecard	Test 1, Step 11
2.0	Start a round	
2.1	Each player takes a turn	Test 3, Step 3
2.2	Each player scores a hand	Test 4, Step 4
2.3	Each player is shown their scorecard	Test 6, Step 7/13
3.0	Take a turn	
3.1	Build initial hand by rolling dice	Test 2, Step 8
3.2	Determine if rerolls are available	Test 1, Step 15
3.3	Prompt user to keep dice	Test 1, Step 10
3.4	Reroll dice not kept	Test 1, Step 15
3.5	Determine whether to proceed to scoring	Test 1, Step 15
3.5.1	Determine if all dice have been kept	Test 1, Step 10
3.5.2	Determine if all available rolls have been used	Test 1, Step 10
4.0	Score a hand	
4.1	Determine which scorecard lines are unused	Test 4, Step 12
4.2	Calculate score for each unused line	Test 1, Step 12
4.3	Display calculated score to user as possible scoring options	Test 1, Step 12
4.4	Prompt the user to select scoring option	Test 1, Step 13
4.5	Record score of selected option on appropriate scorecard line	Test 4, Step 7
5.0	Display a scorecard	
5.1	Display score for each upper scorecard line	Test 1, Step 13
5.2	Calculate and display total of upper scorecard lines	Test 5, Step 14
5.3	Determine if bonus was achieved	Test 5, Step 14
5.4	Display total of upper scorecard lines including bonus	Test 5, Step 14
5.5	Display the score for each lower scorecard line	Test 5, Step 14
5.6	Calculate and display grand total	Test 6, Step 4
6.0	Finish a game	

6.1	Determine whether any scorecard lines remain unused	Test 8, Step 4/5
6.2	Display final scorecard when all scorecard lines have been used	Test 8, Step 6
6.3	Ask user if they would like to play again	Test 8, Step 7
6.4	Start new game if appropriate	Test 8 , Step 7

## Test Case 1 – Starting a new game when no previous game has been played

- Step 1 Launch the game
- Step 2 Check Rules page for Rainbow Yahtzee
- Step 3 Close Rules page
- Step 4 From main welcome page, click on the "Start New Game" button
- Step 5 User should see an Options/Configuration page
- Step 6 Select configuration for game based on three drop down lists and hit "Submit" button
- Step 7 User should see Options/Configuration page close and Rainbow Yahtzee game pop up
- Step 8 User should see 7 7-sided color die (dependent on configuration) and three buttons below the die
- Step 9 Verify that based on user input, the middle button (players scorecard button) reflects how many players there on (must complete a full round in order to do so)
- Step 10 Roll the die and select keep them all
- Step 11 Click "Player 1 Scorecard" to see if the scorecard is accurate based on who is playing
- Step 12 Verify scorecard score is correct per player
- Step 13 Enter in line of code you want to submit in right hand side scorecard
- Step 14 Hit "GO" when ready
- Step 15 Repeat rolling and entering in scorecard line for each player until all turns are over

#### Test Case 2 – Starting a new game when a previous game had been played

- Step 1 Complete a game using 7 7-sided die with 3 rolls per turn with one player
- Step 2 Launch game
- Step 3 From main welcome page, click on the "Start New Game" button
- Step 4 User should see an Options/Configuration page
- Step 6 Select configuration for game based on three drop down lists and hit "Submit" button
- Step 7 User should see Options/Configuration page close and Rainbow Yahtzee game pop up
- Step 8 User should see 7 7-sided color die and three buttons below the die
- Step 9 Repeat all remaining steps from test case 1 (9 15) until game is complete

# Test Case 3 – Starting a round

- Step 1 Click Start New Game as in Test case 1 and 2
- Step 2 Select 2 players in Configuration settings and hit "Submit"
- Step 3 Roll die and select which line to submit for player 1
- Step 4 Verify that the middle button below says "Player 1 Scorecard"
- Step 5 After submitting line for player one, screen should reset with random die and middle button should show "Player 2 Scorecard"

- Step 6 Have player 2 roll die and prior to submitting line, check player 2 scorecard by hitting middle button
- Step 7 Verify that scorecard has no values in it since player 2 has not submitted anything
- Step 8 Submit line to pick and hit "Go"
- Step 9 Screen should change, and die should be different
- Step 10 Verify that it is player 1 turn by checking middle button
- Step 11 Select middle button "player 1 turn" and make sure that the line they chose reflects the scorecard on right hand side
- Step 12 Repeat step 11 with player 2
- Step 13 continue game and verify that each scorecard reflects the right scores for each player

#### Test Case 4 – Scoring a hand before roll limit has been reached

- Step 1 Start a New Game with Two Players
- Step 2 Player 1 roll die and select line 1 which is "R"
- Step 3 Ensure that value of line 1 "R" is correct by calculating how many red die there are in the users current hand
- Step 4 Submit by hitting "Go" button
- Step 5 User should see that it is player 2 turn
- Step 6 Player 2 roll die and select line 2 which is "Y"
- Step 7 Ensure that value of line 2 "Y" is correct by calculating how many yellow die there are in the users current hand
- Step 8 Submit by hitting "Go" button
- Step 9 User should now see it is back to player 1 turn
- Step 10 View Player 1 Scorecard and verify that line 1 ("R") has correct value in it
- Step 11 Roll die once more until there are no more rolls in the turn
- Step 12 Verify that the scorecard options that pop up on right hand side does not contain line
- 1 "R" as an option as that line has already been used
- Step 13 Select a different line by entering it in the box given at the bottom of scoring options and hit "Go"
- Step 14 Repeat step 9 13 for Player 2
- Step 15 Continue game until all lines of scorecard options are used and game should be over

## Test Case 5 – Displaying the scorecard during the game

- Step 1 Launch the game
- Step 2 From main welcome page, click on the "Start New Game" button
- Step 3 User should see an Options/Configuration page
- Step 4 Hit "Submit" button without changing drop down menu's default should be 1 player, 7 dice, 3 rolls per turn
- Step 5 User should see Options/Configuration page close and Rainbow Yahtzee game pop up
- Step 6 User should see 7 7-sided color die (dependent on configuration) and three buttons below the die
- Step 7 Hit middle button which should say "Scorecard" and verify that scorecard pops up on right hand side of screen
- Step 8 Verify that scorecard is empty as nothing has been played

- Step 9 Roll die until no more rolls in the turn
- Step 10 Right hand side should show scorecard options
- Step 11 Select line and enter it in given box and hit "Go"
- Step 12 Screen should now show no more scoring options and 7 random die faces
- Step 13 Check scorecard and verify that score line selected is inputted
- Step 14 Continue to play game and ensure that score card is up to date as game goes on

# Test Case 6 – Displaying the scorecard at the end of the game

- Step 1 Start and play a one player game
- Step 2 Play until all lines but one of the lines of the scorecard are full
- Step 3 Score the final line of the scorecard
- Step 4 Once all lines of the scorecard have been scored, a popup of the final scorecard will display showing all the lines and the scores on those lines

# **Test Case 7 – Ending a game**

- Step 1 Start and play a one person game
- Step 2 Continue to play until there is only one line left on possible scorecard options list (that pops up when user runs out of rolls)
- Step 4 When there is one line left of possible scorecard options, select the last one that is
- Step 5 Game Over popup should appear on screen to indicate game is over as the user has used their last turn
- Step 6 User should see a final scorecard on the screen to show them their final scores for the game played
- Step 7 User should also see a button to allow them to play a new game