

Group 14 - Test Specification

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1. INTRODUCTION

1.1. Purpose Of This Document

The purpose of this document is to provide a testing standard/specification to be used to aid the creation and testing of the buccaneer game. At the later stage of production, another document will be completed with the test result table [4] showing which of the requirements have been met.

1.2. Scope

This document will include a detailed table for the test procedures and document change history to track changes made. The References section includes the Requirements Specification and User Interface Specification. Appendix provides key constant values taken for the Requirements Specifications which are used multiple times in the tests.

Documents to be read [2]

1.3. Objectives

In this document we will outline in detail each of the system tests to be done as part of a formal test process as described in the test procedure standards [3], this will be cross-referenced with the appropriate section of the functional requirements.

2. TEST SPECIFICATION

Test Ref	Req being tested	Test Content	Input	Output	Pass Criteria
SE-F-001	FR1	Test that system can request 4 name inputs	Enter 4 names: Jay, Ali, Eric, Thomas	List of names should include those names	Correct data is stored
SE-F-002	FR1	Test that system only accepts player names shorter than 10 characters being only letters, and does not allow blank names or duplicate names	Enter 4 names: Jay, Eric, Hassan, Incorrect Name	Should prompt for name again on input: Incorrect Name	Not accept input over 10 characters and re-prompt
SE-F-003	FR2	Test if system can assign ports to users	Getting usernames inputted at SE-F-001	Each username is retrieved correctly and assigned to a port	Each user is assigned one port out of: London, Genoa, Marseilles, and Cadiz
SE-F-004	FR2	Test if only one unique port is assigned to each user	Names from SE-F-001	Each username is retrieved correctly and assigned to one port only	Data is assigned correctly
SE-F-005	FR3	Test if there are 36 Crew Cards in the game	N/A	Number of all Crew Cards in the game	The number of Crew Cards in the game is equal to 36
SE-F-006	FR3	Test if correct Crew Cards are stored	Count all the Crew Cards in the game	A list of all Crew Cards in the game	There are 6 copies each Crew Card with value 1, 2 and 3 in red and in black
SE-F-007	FR3	Test if game stores the Crew Cards randomly	Check where all the Crew Cards are assigned in one game, then run another game and compare	Two collections of crew cards from two different games to be compared	The Crew Cards are in different order every time

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SE-F-008	FR3	Test if card returned to deck is stored at bottom of the deck	Drawing a card and then returning it to the deck	Returned card stored/located at the end of the array/deck	Returned card is at index n-1
SE-F-009	FR3	Test if card drawn is from the top of the deck	Retrieving a card from the deck	First card of the deck is retrieved	The card retrieved was from position 0 in the array
SE-F-010	FR3	Test if retrieved card is not present in the deck	Retrieving card	Card is not located/stored in the deck	The card retrieved is not stored in the card array
SE-F-011	FR4	Test if there are 28 Chance Cards in the deck at the beginning of the game	Initialise the game	There are 28 cards in the deck	There are 28 distinct cards in the Crew Cards deck
SE-F-012	FR4	Test if the game sorts the cards randomly at the beginning of each game	Initialise two games and iterate through and compare the order of cards in them	The cards in the games are in different order	The game sorts the cards in a random order at the beginning of every game
SE-F-013	FR4	Test if the game correctly puts chance cards at the bottom of the pile	Distribute all cards among the players	The Chance Card at the top of the pile is the same card as the first one taken	The first card taken is the same card as the 29 th card taken
SE-F-014	FR4	Test if the game assigns the cards that are meant to be kept by the players	Distribute all cards among the players	The assignable cards have been assigned to the players.	The players have the chance card assigned to them
SE-F-015	FR4	Test if the game removes the assignable crew cards from the deck when they are assigned to a player	Distribute all cards among the players	There are 24 crew cards	The assignable crew cards are removed from the deck
SE-F-016	FR4	Test that the assignable crew cards are returned to the bottom of the pack after they have been used	Distribute all cards among the players and perform the action that specified on the assignable crew cards	The assignable crew cards are returned to the deck after the action has been performed	Assignable crew cards are returned to the bottom of the pack

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SE-F-017	FR5	Test if the Treasure Island stores 4 diamonds at the beginning of the game	Initialise the game	The Treasure Island Stores 4 diamonds	The Treasure Island stores the correct number of treasures at the beginning of the game
SE-F-018	FR5	Test if the Treasure Island stores 4 rubies at the beginning of the game	Initialise the game	The Treasure Island Stores 4 rubies	The Treasure Island stores the correct number of treasures at the beginning of the game
SE-F-019	FR5	Test if the Treasure Island stores 4 gold bars at the beginning of the game	Initialise the game	The Treasure Island Stores 4 gold bars	The Treasure Island stores the correct number of treasures at the beginning of the game
SE-F-020	FR5	Test if the Treasure Island stores 4 pearls at the beginning of the game	Initialise the game	The Treasure Island Stores 4 pearls	The Treasure Island stores the correct number of treasures at the beginning of the game
SE-F-021	FR5	Check that the number of diamonds in the game is equal to 4	Initialise the game, count the number of diamonds assigned to all ports, ships, and the Flat Island	The total number of diamonds assigned to all ships, ports and the Flat Island is equal to 4	The number of diamonds in the game is equal to 4
SE-F-022	FR5	Check that the number of rubies in the game is equal to 4	Initialise the game, count the number of rubies assigned to all ports, ships, and the Flat Island	The total number of rubies assigned to all ships, ports and the Flat Island is equal to 4	The number of rubies in the game is equal to 4
SE-F-023	FR5	Check that the number of gold bars in the game is equal to 4	Initialise the game, count the number of gold bars assigned to all ports, ships, and the Flat Island	The total number of gold bars assigned to all ships, ports and the Flat Island is equal to 4	The number of gold bars in the game is equal to 4
SE-F-024	FR5	Check that the number of pearls in the game is equal to 4	Initialise the game, count the number of pearls assigned to all ports, ships, and the Flat Island	The total number of pearls assigned to all ships, ports and the Flat Island is equal to 4	The number of pearls in the game is equal to 4
SE-F-025	FR5	Check that the number of barrels of rum in the game is equal to 4	Initialise the game, count the number of barrels of rum assigned to all ports, ships, and the Flat Island	The total number of barrels of rum assigned to all ships, ports and the Flat Island is equal to 4	The number of barrels of rum in the game is equal to 4
SE-F-026	FR5	Test that a request to obtain a treasure that	Reassign all treasure of one type from the Treasure Island to a ship, try	Refusal	Refusal to assign the treasure

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		has been assigned elsewhere from the Treasure Island should be refuser	to assign the same type of treasure from T1 to another ship		
SE-F-027	FR5	Test if the value of Diamonds is stored correctly	Assign one diamond to a ship	One diamond is now assigned to the ship	The value of the treasure on this ship is equal to 5
SE-F-028	FR5	Test if the value of Rubies is stored correctly	Assign one ruby to a ship	One ruby is now assigned to the ship	The value of the treasure on this ship is equal to 5
SE-F-029	FR5	Test if the value of Gold Bars is stored correctly	Assign one gold bar to a ship	One gold bar is now assigned to the ship	The value of the treasure on this ship is equal to 4
SE-F-030	FR5	Test if the value of Pearls is stored correctly	Assign one pearl to a ship	One pearl is now assigned to the ship	The value of the treasure on this ship is equal to 3
SE-F-031	FR5	Test if the value of Barrels of Rum is stored correctly	Assign one barrel of rum to a ship	One barrel of rum is now assigned to the ship	The value of the treasure on this ship is equal to 2
SE-F-032	FR6	Test if the value of Crew Cards is stored correctly	Assign a black crew card of value 1 to a player	Their combat value is now 1	The player's combat value is equal to 1
SE-F-033	FR6	Test if the value of Crew Cards is stored correctly	Assign a black crew card of value 2 to a player	Their combat value is now 2	The player's combat value is equal to 2
SE-F-034	FR6	Test if the value of Crew Cards is stored correctly	Assign a black crew card of value 3 to a player	Their combat value is now 3	The player's combat value is equal to 3
SE-F-035	FR6	Test if the player's combat value is calculated correctly	Assign a black crew card of value 3 and a red crew card of value 1 to a player	Their combat value is now 2	The player's combat value is equal to 2
SE-F-036	FR7	Test if game can correctly keep track of the nr of cards at Port London	Add 5 cards to the port	Correct sum of nr of cards will be 5	The returned card array size is equal to the number of cards added (5)

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SE-F-037	FR7	Test if game can correctly keep track of the nr of cards at Port Marseilles	Add 6 cards to the port	Correct sum of nr of cards will be 6	The returned card array size is equal to the number of cards added (6)
SE-F-038	FR7	Test if game can correctly keep track of the nr of cards at Port Cadiz	Add 3 cards to the port	Correct sum of nr of cards will be 3	The returned card array size is equal to the number of cards added (3)
SE-F-039	FR7	Test if game can correctly keep track of the nr of cards at Port Genoa	Add 1 card to the port	Correct sum of nr of cards will be 1	The returned card array size is equal to the number of cards added (1)
SE-F-040	FR7	Test if the game stores the value of cards correctly	Add 3 cards to the port, all with the value of 2	Returned values of cards total is 6	The returned value of cards is correct (6)
SE-F-041	FR7	Test if the game correctly keeps track of the cards after a card is removed	Remove 1 card out of the previously added 5 in SE-F-011	Returned value of number of cards is 4	The returned value of cards is correct (4)
SE-F-042	FR7	Test if the game correctly keeps track of the treasure at the port London	Add 1 piece of treasure	Returned value of treasure amount is equal to 1	The returned value of treasure is correct (1)
SE-F-043	FR7	Test if the game correctly keeps track of the treasure at the port Marseilles	Add 2 pieces of treasure	Returned value of treasure amount is equal to 2	The returned value of treasure is correct (2)
SE-F-044	FR7	Test if the game correctly keeps track of the treasure at the port Cadiz	Add 3 pieces of treasure	Returned value of treasure amount is equal to 3	The returned value of treasure is correct (3)
SE-F-045	FR7	Test if the game correctly keeps track of the treasure at the port Genoa	Add 4 pieces of treasure	Returned value of treasure amount is equal to 4	The returned value of treasure is correct (4)

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SE-F-046	FR7	Test if the game correctly keeps track of treasure once removed	Remove 1 treasure from port London	Returned value of treasure amount is equal to 0	The returned value of treasure is correct (0)
SE-F-047	FR7	Test if the game correctly keeps track of treasure once removed	Remove 1 treasure from port Marseilles	Returned value of treasure amount is equal to 1	The returned value of treasure is correct (1)
SE-F-048	FR7	Test if the game correctly keeps track of treasure once multiple treasure is removed	Remove 2 treasure from port Cadiz	Returned value of treasure amount is equal to 1	The returned value of treasure is correct (1)
SE-F-049	FR7	Test if the game correctly keeps track of treasure once more than stored removed is removed	Remove 5 treasure from port Genoa	Returned value of treasure amount is equal to 0	The returned value of treasure is correct (0) and not -1
SE-F-050	FR7	Test if the ports have players assigned to them	Add a player/owner to the port London: "Hassan"	Returned value of port owner is Hassan	Data is stored correctly
SE-F-051	FR7	Test if the ports have players assigned to them	Add a player/owner to the port Marseilles: "Thomas"	Returned value of port owner is Thomas	Data is stored correctly
SE-F-052	FR7	Test if the ports have players assigned to them	Add a player/owner to the port Cadiz: "Ali"	Returned value of port owner is Ali	Data is stored correctly
SE-F-053	FR7	Test if the ports have players assigned to them	Add a player/owner to the port Genoa: "Eric"	Returned value of port owner is Eric	Data is stored correctly
SE-F-054	FR8	Test if the game can correctly keep track of the nr of cards at Flat Island when cards are added	Add 10 cards to Flat Island	Stored cards at Flat Island contain the previously added 10 total cards	Data is stored correctly

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SE-F-055	FR8	Test if the game can correctly keep track of the number of cards at Flat Island when cards are removed	Remove 3 cards from previously added 10 in: SE-F-030	Stored cards total now equal 7 (10-3)	Data is processed and stored correctly
SE-F-056	FR8	Test if the game can correctly keep track of the number of cards at Flat Island when more cards are removed than available	Remove 8 cards from the previously removed 3 in: SE-F-030	Stored cards total now equal 0 and not -1 as (7-8=-1)	Data is processed and stored correctly
SE-F-057	FR8	Test if the game can correctly keep track of the number of treasure at Flat Island when treasure is added	Add 10 treasure to Flat Island	Stored treasure at Flat Island contains the previously added 10 total treasures	Data is stored correctly
SE-F-058	FR8	Test if the game can correctly keep track of the number of treasure at Flat Island when treasure is removed	Remove 3 treasure from previously added 10 in: SE-F-032	Stored treasure total now equal 7 (10-3)	Data is processed and stored correctly
SE-F-059	FR8	Test if the game can correctly keep track of the number of treasure at Flat Island when more treasure is removed than available	Remove 8 treasure from the previously removed 3 in: SE-F-033	Stored treasure total now equal 0 and not -1 as (7-8=-1)	Data is processed and stored correctly
SE-F-060	FR9	Test if port London is at the correct coordinates	Return name of element in grid: 13, 19	Returned name equals: Port of London	Correct data is stored
SE-F-061	FR9	Test if port Cadiz is at the correct coordinates	Return name of element in grid: 19, 6	Returned name equals: Port of Cadiz	Correct data is stored

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SE-F-062	FR9	Test if port Marseilles is at the correct coordinates	Return name of element in grid: 6, 0	Returned name equals: Port of Marseilles	Correct data is stored
SE-F-063	FR9	Test if port Genoa is at the correct coordinates	Return name of element in grid: 0, 13	Returned name equals: Port of Genoa	Correct data is stored
SE-F-064	FR9	Test if Mud Bay is at the correct coordinates	Return name of element in grid: 0, 19	Returned name equals: Mud Bay	Correct data is stored
SE-F-065	FR9	Test if Anchor Bay is at the correct coordinates	Return name of element in grid: 19, 0	Returned name equals: Anchor Bay	Correct data is stored
SE-F-066	FR9	Test if Cliff Creek is at the correct coordinates	Return name of element in grid: 0, 0	Returned name equals: Cliff Creek	Correct data is stored
SE-F-067	FR9	Test if Flat Island is at the correct coordinates	Return name of element in grid spanning: x-15, y-18, z-18, w-16	Returned name equals: Flat Island	Correct data is stored
SE-F-068	FR9	Test if Pirate Island is at the correct coordinates	Return name of element in grid spanning: x-1, y-3, z-4, w-1	Returned name equals: Pirate Island	Correct data is stored
SE-F-069	FR9	Test if Treasure Island is at the correct coordinates	Return name of element in grid spanning: x-8, y-11, z-11, w-8	Returned name equals: Treasure Island	Correct data is stored
SE-F-070	FR10	Test if each player is dealt 5 Crew Cards from the pack	Initialise the game	Each player has 5 cards in their collection of Crew Cards	Every player has 5 crew cards assigned to them
SE-F-071	FR10	Test if all the Trading Ports are dealt 2 crew cards	Initialise the game	The Trading ports are assigned 2 crew cards	All the Trading Ports have exactly two cards at the beginning of the game
SE-F-072	FR10	Test if for all Trading Ports the sum of crew cards and treasure is equal to 8 at the	Initialise the game	The sum of all the Crew Cards and Treasure in all the Trading Ports is equal to 8	The Trading Ports have exactly two cards, which values sum up to 8

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		beginning of the game			
SE-F-073	FR10	Test if all the players get a unique home port at the beginning of the game	Initialise the game	All players have unique home ports	Each player starts the game in a different port
SE-F-074	FR10	Test if the start position for each ship is their Home Port	Initialise the game	Each ships begins the game in their home port	Ship's coordinates are matching their Home Port
SE-F-075	FR11	Test that the order of the players in a turn is as specified (London, Genoa, Marseilles, Cadiz)	Initialise the game	The order of players is correct	The order in which the player take turns is London, Genoa, Marseilles, Cadiz
SE-F-076	FR11	Check if the player can choose to either turn or move their ship	Initialise the game	A window allowing the user to choose to either move or turn	The player can choose to either move or turn
SE-F-077	FR11	Test that the player's decision for change of direction is represented in the game	Choose South as the direction	The direction of the player is South	The ship's direction changes to South
SE-F-078	FR11	Test that the player can't move more squares than the sum of his crew cards	User with crew cards that sum up to 5 tries to move 6 squares	Refusal/ error message	The player can only move up to their legal range
SE-F-079	FR 11	Test that that the player must move their ship when it's in a port	Player starting the turn in their port	The player can only move when he's in the port	The only option possible is to move
SE-F-080	FR11	Test if the legal squares are shown to the player	Initialise the game, player chooses to move	Legal squares are highlighted on the board	The legal squares are highlighted
SE-F-081	FR11	Test if the player can move to a square	User with crew cards that sum up to 5 tries to move 4 squares	The player moves successfully	Player's position changes

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		withing his legal range			
SE-F-082	FR11	Test that the player cannot move to a square outside of his legal range	User with crew cards that sum up to 5 tries to move 6 squares	Refusal/ error message	The player is not allowed to move more squares than their legal range
SE-F-083	FR11	Test that the player can move only in the direction he's facing	Try to move in a different direction	Refusal/ error message	The player can only move in the direction he's facing
SE-F-084	FR11	Test that the player can only move in a straight line when leaving port	Try to move to a square that is not in a straight line from the port	Refusal/ error message	The player can only move in a straight line
SE-F-085	FR11	Test that it's refused when the player tries to move more squares than his legal range (when in the port)	Player with the sum of crew cards equal to 5 tries to move 6 squares outside form the port	Refusal/ error message	The player can only move up to their legal range when leaving a port
SE-F-086	FR11	Test that it's refused when the player tries to move outside of the board	Player tries to move to a position that is not on the board	Refusal/ error message	The player can only move in the coordinates of the board
SE-F-087	FR 11	Test that the player can't move on the squares occupied by the Islands (refer to Appendix for coordinates)	Player tries to move to a coordinate occupied by an island	Refusal/ error message	The player can only move on the squares that are not occupied by the islands
SE-F-088	FR11	Test that after making a move the player can choose a direction to turn	Player makes a move not involving an attack	The player can choose their direction	The player's decision is represented in the game
SE-F-089	FR11	Test that the player cannot turn in a direction in which they	Player moves to a position at the edge of the board and tries to turn	Refusal/ error message	The player cannot turn in the invalid direction

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		can't move at least one square	towards the edge of the board		
SE-F-090	FR11	Test that when a player moves to a square adjacent to the Treasure Island the correct sequence is followed	A player moves to the coordinate (8, 13)	Correct sequence is followed	Refer to FR13 for further tests
SE-F-091	FR11	Test that when a player moves to a square adjacent to the Flat Island the correct sequence is followed	A player moves to the coordinate (4, 16)	Correct sequence is followed	Refer to FR 14 for further test
SE-F-092	FR11	Test that when a player moves to a square representing a port the correct sequence is followed	A player moves to the coordinate (1,7)	Correct sequence is followed	Refer to FR 15 for further tests
SE-F-093	FR 12	Test if the fighting strength of the ships is calculated correctly	N/A	N/A	Refer to FR6 tests
SE-F-094	FR12	Check that the winner is announced correctly	Conduct an attack, with Player 1 (10 fighting strength), Player 2 (9 fighting strength)	Player 1 wins	Player with the higher fighting strength
SE-F-095	FR12	Test if when the losing ship has treasure, the winner takes its treasure	Conduct an attack, Player 1 with two treasure, Player 2 with no treasure	Player 2 wins and is assigned Player 1's treasure	The winner of an attack takes the treasure of the loser (only when the winner has less than 2 treasure in their ship)
SE-F-096	FR12	Test if when the winner cannot accommodate the treasure, it is returned to the Treasure Island	Conduct an attack, Player 1 with two treasure, Player 2 with 2 treasures	Player 2 wins, the treasure is returned to the Treasure Island	Test that the loser's treasure is returned to the Treasure Island when the winner cannot accommodate it

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SE-F-097	FR12	Test if when the loser doesn't have treasure, the lowest crew cards are given to the winner	Conduct an attack, Player 1 with no treasure and crew cards (1,2,3), Player 2	Player 2 wins and gets assigned crew cards of value 1 and 2	The lowest crew cards of the loser are given to the winner
SE-F-098	FR12	Test if when the loser doesn't have treasure and has only one crew card it is given to the winner	Conduct an attack, Player 1 with no treasure and one crew card, Player 2	The crew card is given to Player 2	The loser's crew card is given to the winner
SE-F-099	FR12	Test that after the attack the loser is asked what direction they want to turn	Conduct and attack Player 2 loses	Player 2 can choose the direction to choose	The loser can choose the direction to turn
SE-F-100	FR12	Test that the above decision is represented in the game	Player 2 chooses the direction	The change is represented in the game	The decision of the player is reflected in the game
SE-F-101	FR12	Test that the loser must move at least one square	Player 2 tries to stay on the same square	Refusal/ error message	The loser must move away from the square
SE-F-102	FR12	Test that the winner is facing the same direction as they were before the attack	Player 1 wins the attack	Player 1 is facing the same direction as they were moving/ facing	The winner stay in the same direction
SE-F-103	FR13	Test if a player is given a chance card when adjacent to Treasure Island at the end of their turn from the top of the deck.	Change location of a ship to be adjacent to Treasure Island	The ship's owner is given a chance card from top of the deck	Previously top card now is given/executed and now appears to be at the bottom of the deck
SE-F-104	FR13	Test if given Chance card is executed correctly	Give card number 1	The player is moved 5 squares away from the nearest side. If they are at a corner square of the island they are moved away diagonally. After the move, they	Correct number of spaces moved and correct direction, including a choice of direction change given at the end

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				are given a choice of which direction they wish to face. C1 applies.	
SE-F-105	FR13	Test if given Chance card is executed correctly	Give card number 2	The player is given a choice of which of the other three players gives them crew cards. C1 applies.	The system automatically assigns them the lowest values card from a chosen player, then card is returned to the pack
SE-F-106	FR13	Test if given Chance card is executed correctly	Give card number 3	Move player's ship to nominated square. C1 applies. Allow player to select orientation of ship.	Player's ship is moved to Mud Bay and are given 4 crew cards from pirate island if strength is less/equal to 3 and a direction change is given
SE-F-107	FR13	Test if given Chance card is executed correctly	Give card number 4	Move player's ship to nominated square. C1 applies. Allow player to select orientation of ship	Player's ship is moved to Cliff Creek and are given 4 crew cards from pirate island if strength is less/equal to 3 and a direction change is given
SE-F-108	FR13	Test if given Chance card is executed correctly	Give card number 5	Move player's ship to nominated square. C1 applies. Empty ship of any treasure	Player's ship is moved to Home Port and are given 4 crew cards from pirate island if strength is less/equal to 3 and Ship is emptied from any treasure
SE-F-109	FR13	Test if given Chance card is executed correctly	Give card number 6	Move player's ship to nearest port in the direction they are facing, and give 4 Crew Cards if their crew total is smaller or equal to 3	Correct direction is calculated using ship direction and location on map, correct number of Crew Cards (4) are given if applicable
SE-F-110	FR13	Test if given Chance card is executed correctly	Give card number 7	One treasure or 2 crew cards lost and given to nearest ship, if multiple ships at equal distance, then card is ignored	Correctly calculate nearest ship using non land squares, if multiple ships at equal distance, then ignore this card, assign least valuable treasure to nearest ship if applicable otherwise assign up to two lowest value cards to other ship and removed from player's ship

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SE-F-111	FR13	Test if given Chance card is executed correctly	Give card number 8	One treasure or 2 crew cards lost and given to Flat Island	Least valuable treasure is assigned to Flat Island if the player has any treasure. Otherwise assign up to two lowest value cards instead and removed from player's ship
SE-F-112	FR13	Test if given Chance card is executed correctly	Give card number 9	One most valuable treasure (if applicable) or card lost and given to Flat Island	Most valuable treasure if any or most valuable card assigned to Flat Island and removed from player's ship
SE-F-113	FR13	Test if given Chance card is executed correctly	Give card number 10	Most valuable crew card deserted to pirate Island immediately	Highest values card taken from player and added to pirate island
SE-F-114	FR13	Test if given Chance card is executed correctly	Give card number 11	Treasure taken up to values of 5 or 2 crew cards from Pirate Island	Player given a choice between crew cards or treasure, correct amounts calculated and assigned to corresponding player and taken away from the corresponding Island, if one is not applicable automatically assign the other cards or treasure to player respectable of treasure space on ship and output to the player beforehand
SE-F-115	FR13	Test if given Chance card is executed correctly	Give card number 12	Treasure taken up to values of 4 or 2 crew cards from Pirate Island	Player given a choice between crew cards or treasure, correct amounts calculated and assigned to corresponding player and taken away from the corresponding Island, if one is not applicable automatically assign the other cards or treasure to player respectable of treasure space on ship and output to the player beforehand

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SE-F-116	FR13	Test if given Chance card is executed correctly	Give card number 13	Treasure taken up to values of 5 or 2 crew cards from Pirate Island	Player given a choice between crew cards or treasure, correct amounts calculated and assigned to corresponding player and taken away from the corresponding Island, if one is not applicable automatically assign the other cards or treasure to player respectable of treasure space on ship and output to the player beforehand
SE-F-117	FR13	Test if given Chance card is executed correctly	Give card number 14	Treasure taken up to values of 7 or 3 crew cards from Pirate Island	Player given a choice between crew cards or treasure, correct amounts calculated and assigned to corresponding player and taken away from the corresponding Island, if one is not applicable automatically assign the other cards or treasure to player respectable of treasure space on ship and output to the player beforehand
SE-F-118	FR13	Test if given Chance card is executed correctly	Give card number 15	Two crew cards taken from Pirate Island	Player is assigned specified nr of cards from specified location, if less cards then specified number available, then remaining cards are assigned, otherwise two lowest value cards assigned from another player or crew cards dealt from top of deck

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SE-F-119	FR13	Test if given Chance card is executed correctly	Give card number 16	Treasure taken up to 7 in value (2 in limit) and crew cards total reduced to 10 or below	Crew card total reduced to 10 or below, keeping total as close to 10, and added to the back of the deck, only 2 treasure is assigned up to ship limit
SE-F-120	FR13	Test if given Chance card is executed correctly	Give card number 17	Treasure taken up to 6 in value (2 in limit) and crew cards total reduced to 11 or below	Crew card total reduced to 10 or below, keeping total as close to 10, and added to the back of the deck, only 2 treasure is assigned up to ship limit
SE-F-121	FR13	Test if given Chance card is executed correctly	Give card number 18	Treasure taken up to 4 in total value (2 in limit) and if crew is 7 or less, 2 crew cards taken from Pirate Island	Only 2 treasure is assigned up to ship limit and correct amount of crew cards assigned if applicable, Player is assigned specified nr of cards from specified location, if less cards then specified number available, then remaining cards are assigned, otherwise two lowest value cards assigned from another player or crew cards dealt from top of deck
SE-F-122	FR13	Test if given Chance card is executed correctly	Give card number 19	All total nr of cards returned to Pirate Island, same number of cards given back from top of deck	All cards returned are at the bottom of the pack, all cards given are from top of pack, number of cards returned are equal to number of cards given, cards have a possibility to be recycled back
SE-F-123	FR13	Test if given Chance card is executed correctly	Give card number 20	Exchange up to 2 crew cards with one player at Treasure Island, if no player at island, then return 2 cards to Pirate Island	If multiple players at Island, give an option to player to choose one of the players, correctly exchange up to 2 random cards between them, if not applicable (no other players) return 2 cards from player to Pirate Island

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SE-F-124	FR13	Test if given Chance card is executed correctly	Give card number 21	CARD IS KEPT WITH PLAYER, able to use this card to exchange crew cards up to 5 in value from a port, leaving it behind on used location	Correct number of card value (5) allowed to be exchanged with, card should belong to a player, card dropped on the port it is played at, state of ownership should change accordingly
SE-F-125	FR13	Test if given Chance card is executed correctly	Give card number 22	All players crew cards reduced to 7 total cards if applicable and returned to Pirate Island	Correct number of cards reduced to correct total of 7 from all players, each player can choose which cards to return
SE-F-126	FR13	Test if given Chance card is executed correctly	Give card number 23	CARD IS KEPT WITH PLAYER, able to be used for exchanging crew or treasure up to value of 5 from any port you visit	Correct number of card or treasure value (5) allowed to be exchanged with, card should belong to a player, card dropped on the port it is played at, state of ownership should change accordingly
SE-F-127	FR13	Test if given Chance card is executed correctly	Give card number 24	CARD IS KEPT WITH PLAYER, able to be used for exchanging crew or treasure up to value of 4 from any port you visit	Correct number of card or treasure value (4) allowed to be exchanged with, card should belong to a player, card dropped on the port it is played at, state of ownership should change accordingly
SE-F-128	FR13	Test if given Chance card is executed correctly	Give card number 25	CARD IS KEPT WITH PLAYER, Moved to Pirate Island (onto to anchor bay square), treasure taken up to value of 7 (2 limit)	Correct number of treasures is assigned from Treasure Island, card returned to bottom of deck
SE-F-129	FR13	Test if given Chance card is executed correctly	Give card number 26	CARD IS KEPT WITH PLAYER, Moved to Pirate Island (onto to anchor bay square), treasure taken up to value of 7 (2 limit)	Correct number of treasures is assigned from Treasure Island, card returned to bottom of deck
SE-F-130	FR13	Test if given Chance card is executed correctly	Give card number 27	Treasure given up to 5 in value (2 limit), or 3 crew cards from Pirate Island	Player given a choice between crew cards or treasure, correct amounts calculated and assigned to corresponding player and taken away from the

					corresponding Island, if one is not applicable automatically assign the other cards or treasure to player respectable of treasure space on ship and output to the player beforehand
SE-F-131	FR13	Test if given Chance card is executed correctly	Give card number 28	Two crew cards given from Treasure Island	Player is assigned specified nr of carfs from specified location, if less cards then specified number available, then remaining cards are assigned, otherwise two lowest value cards assigned from another player or crew cards dealt from top of deck
SE-F-132	FR14	Test if treasure is given when player is adjacent to Flat Island	Move player position to be adjacent to Flat Island	Player is given Treasure if they have less then 2 treasures on their ship	Correct number of treasures given according to ship space
SE-F-133	FR14	Test if 1 treasure is awarded when player only has 1 space on ship, treasure given is highest value	Move player adjacent to Treasure Island with 1 piece of treasure already onboard	Player is given 1 treasure which is the highest value	Correct number and value of treasure is given to player
SE-F-134	FR14	Test if player is assigned any cards from Flat Island	Move player adjacent to Flat Island with 0 cards, add 5 cards to Flat Island	Player is given 5 cards and Flat Island will have 5 less cards	Correct number of cards assigned to player (all), and removed from Flat Island
SE-F-135	FR15	Test if ships are unloaded when reaching ports	Move player with treasure to their port	All treasure is deposited	Correct number and type of treasure deposited
SE-F-136	FR15	Test if players can trade in ports	Move player with cards and treasure to another port other than their own	Option to trade is given, all port deposited treasure and cards are shown including players own cards, player is	System trades automatically from cards selected if both equal in value, system should be able to calculate

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				allowed to select and confirm items to be traded, system trades items according to rules	values of worth correctly, and update port owner's cards respectively to change.
SE-F-137	FR15	Tests if Ports accept chance cards to trade	Move player with chance card NR 4	Player can choose cards with value of up to 4	Trading with cards is accepted, cards are deposited at port or the deck if applicable, value of items taken, and cards used are equal
SE-F-138	FR16	Test if when a player that holds Chance Card 25 gets to the Anchor Bay the correct sequence is followed	Player picks card number 25 and moves to the Anchor Bay	The sequence specified in Buccaneer Requirements document, Appendix A, Card 25	The payer can take treasure up to 7 total values from the Treasure Island
SE-F-139	FR16	Test if when a player that holds Chance Card 26 gets to the Anchor Bay the correct sequence is followed	Player picks card number 26 and moves to the Anchor Bay	The sequence specified in Buccaneer Requirements document, Appendix A, Card 26	The payer can take treasure up to 7 of total value from the Treasure Island
SE-F-140	FR17	Test if the game finishes when one of the players has a total of 20 points worth of treasure in the ports and the ship as they enter the port	Player with 10 points worth of treasure in their port and 10 points worth of treasure enters the port	The game is finished	The game is finished
SE-F-141	FR17	Test if the winner is announced by the game	A player wins the game	A window announcing the player as the winner	The player is announced the winner
SE-F-142	FR17	Test if at the end of a game the program gives a possibility to either start a new game or terminate	A player wins the game	A window allowing the users to either start a new game or terminate	Players can either terminate or start a new game
SE-F-143	N/A	Test if play button works	Clicking on the play button	We are present the next scene where we can input names	We are presented the next screen which will ask for out names.

SE-F-144	N/A	Test if instructions button works	Clicking on the instructions button	We are moved to the next scene which will show us the instructions	Instruction screen is popped up and shows us the instructions
SE-F-145	N/A	Test if we can input names	Inputting names on the name prompt menu	Game is able to take name inputs	Name inputs are able to be taken
SE-F-146	N/A	Test if the game assigns random ports to random players	Input names	Game randomly assigns the names	Names are assigned randomly when test is repeated

Appendix

- Trading Ports are **Venice**(1, 7) and **Amsterdam**(20, 14)
- Player Ports include **London**(1, 14), **Genoa**(7, 1), **Marseilles**(20, 7) and **Cadiz**(14, 20)
- The bays are: **Mud Bay**(1,1), **Anchor Bay**(20, 1) and **Cliff Creek**(20, 20)
- Assignable cards are cards number **21**(Long John Silver), **23** (Doubloons), **24** (Pieces of eight), **25** (Kidd's chart), **26** (Kidd's chart)
- Islands: **Treasure Island**(rectangle with corners (2, 16) and (4, 19)), **Pirate Island** (rectangle with corners (17, 2) and (19, 5)), **Flat Island** (rectangle with corners (9, 9) and (12, 12))

3. REFERENCES

[1]-Requirements Specification for Buccaneer Online Board Game

[2]- SE.GP14.UISpec - User Interface Specification

[3]-SE.QA.06 – Test Procedure Standards

[4]- SE.GP14.TestReport – Project Test Report

4. DOCUMENT CHANGE HISTORY

Version	Issue No.	Date	Changes made to document	Changed by
0.1	N/A	14.02	Added tests for FR 4,5,6	kap48
0.2	N/A	14.02	Added tests for FR 1,2,3	haf22
0.3	N/A	19.02	Added tests for FR 7, 8, 9	haf22
0.4	N/A	21.02	Added tests for FR 10, 11, 12	kap48
0.5	N/A	25.02	Added test for FR 16, 17 and Appendix	kap48
1.0	16	27.02	Added tests for FR 13, 14, 15 and some potential tests for the buttons	haf22
1.1	N/A	28.03	Made changed basing on the feedback	kap48
1.2	14	04.05	Updated The contents table and removed sections based on feedback	jal74