

# **Group Project 11**

## **Test Specification**

Authors: Mateusz Mazur [mam148], Maciek Traczyk [mat78]  
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# 1. INTRODUCTION

## 1.1 Purpose of this Document

This document is to present Test Specification document.

## 2. BODY OF DOCUMENT

Test Ref	Req being tested	Test Content	Input	Output	Pass Criteria
SE-F-001	FR1	Check that system can create four players	Press “Enter” to create players	New players show on the screen	Data is created correctly
SE-F-002	FR1	Check that system can assign names to each of the four players	Enter a name in the pop-up window and hit enter	List of names which are assigned to an appropriate player	Data is assigned correctly
SE-F-003	FR1	Check that system can check if the name already exists and ask for another name once again	Enter the same name two times in a pop-up window	Error message: “That name already exists. Enter a different name:” warns user about the problem	System displays “wrong name” error message
SE-F-004	FR2	Check that system can randomly assign and set exactly one port as a Home Port to each player	-	List of 4 players with randomly assigned ports	Data is assigned correctly
SE-F-005	FR3	Check that system can store pack of 36 crew cards	Enter pack of 36 cards and hit enter	List of all crew cards	Data is stored correctly
SE-F-006	FR3	Check that system can sort pack of cards randomly	Enter pack of 36 cards and hit enter	3 lists of the same pack of cards to check if they sorted randomly in every case	Data is sorted correctly
SE-F-007	FR3	Check that system can return given card at the bottom of the pack	Enter pack of 36 cards and hit enter and pick first card	Bottom of the pack that has card which has been picked in input section	Data is returned in a proper way
SE-F-008	FR4	Check that Chance cards are sorted randomly	Pack of 28 Chance cards	List of Chance cards sorted in random order	Data is stored correctly
SE-F-009	FR4	Check that Chance card that is given out is from the top of the pack	Pack of 28 Chance cards sorted in a list from first (top) to last (bottom)	First (top) card from the list	Data is stored correctly

SE-F-010	FR4	Check that Chance card that is returned to the pack is added to the bottom of the pack	Chance card that is returned to the pack	List of left Chance cards in the pack with returned one as the last one	Data is stored correctly
SE-F-011	FR4	Check that Chance card that is held by player is used in appropriate time	Chance card recorded as held by the player	Player's hand without this Chance card after appropriate action	Data is stored correctly
SE-F-012	FR4	Check that Chance card is returned to the pack of Chance card after use	Chance card recorded as held by the player	Pack of Chance cards containing the one being returned	Data is stored correctly
SE-F-013	FR5	Check that system contains 5 treasure types of 4 each	-----	List of 4 diamonds, 4 rubies, 4 gold bars, 4 pearls and 4 barrels of rum	Data is stored correctly
SE-F-014	FR5	Check that Diamond is worth 5 points	Diamond	Number of points (5)	Data is stored correctly
SE-F-015	FR5	Check that Ruby is worth 5 points	Ruby	Number of points (5)	Data is stored correctly
SE-F-016	FR5	Check that Gold bar is worth 4 points	Gold bar	Number of points (4)	Data is stored correctly
SE-F-017	FR5	Check that Pearl is worth 3 points	Pearl	Number of points (3)	Data is stored correctly
SE-F-018	FR5	Check that Barrel of rum is worth 2 points	Barrel of rum	Number of points (2)	Data is stored correctly
SE-F-019	FR5	Check that treasures are assigned only to ships, to ports and to Flat Island	All treasures that the system contains	Locations of every treasure (Ships, ports and Flat Island)	Data is stored correctly
SE-F-020	FR5	Check that a request to obtain specific treasure from Treasure Island is refused	Specific treasure	Message that there is no specific treasure left on Treasure Island	Data is stored correctly
SE-F-021	FR6	Check that the number of cards in the player's hand and the value of each card are correct	Specific player's name	The number of his cards and value of each card	Data is stored correctly

SE-F-022	FR6	Check that the total distance the player can move in a single turn is correct	Specific player's name	The total distance the player can move in a single turn	Data is stored correctly
SE-F-023	FR6	Check that the fighting strength of the player is correct	Specific player's name	The fighting strength of the player	Data is stored correctly
SE-F-024	FR6	Check that Chance cards retained in the player's hand are correct	Specific player's name	Any Chance card that the player has in his hand	Data is stored correctly
SE-F-025	FR6	Check that the items of treasure in the player's ship are correct	Specific player's name	The items of treasure in the player's hand	Data is stored correctly
SE-F-026	FR6	Check that the location and orientation of the player's ship are correct	Specific player's name	The location and orientation of the player's ship	Data is stored correctly
SE-F-027	FR6	Check that the player's Home Port is correct	Specific player's name	The player's Home Port	Data is stored correctly
SE-F-028	FR7	Check that system can store and track number of cards at the port	Enter pack of cards and make the next moves to simulate the course of the game	Number of cards at the port	Data is stored and tracked correctly
SE-F-029	FR7	Check that system can store and track value of each card	Enter pack of cards and make the next moves to simulate the course of the game	Value of each card at the port	Data is stored and tracked correctly
SE-F-030	FR7	Check that system can store and track items of treasure at the port	Enter specified treasure items and make the next moves to simulate the course of the game	Number of items of treasure at the port	Data is stored and tracked correctly
SE-F-031	FR7	Check that system can track players for whom this is the Home port	Create players and assign them to different ports	Player and port paired up	Data is assigned correctly
SE-F-032	FR7	Check that system can track player with no Home port	Create players	Error message warns that specific player doesn't have Home port	System displays "No Home Port" message

SE-F-033	FR8	Check that system can track and store the number of cards at Flat Island	Enter pack of cards and make the next moves to simulate the course of the game	Number of cards at Flat Island	Data is stored and tracked correctly
SE-F-034	FR8	Check that system can track and store the value of each card at Flat Island	Enter pack of cards and make the next moves to simulate the course of the game	Value of each card at the port	Data is stored and tracked correctly
SE-F-035	FR8	Check that system can track and store items of treasure at Flat Island	Enter specified treasure items and make the next moves to simulate the course of the game	Number of items of treasure at the port	Data is stored and tracked correctly
SE-F-036	FR9	Check that system can display a 20 by 20 square board on screen	Start game with entering names of the players	A 20 by 20 square board appears on a screen	System displays game board
SE-F-037	FR9	Check that system can display coordinates on every square (1,1 (bottom left) – 20,20 (top right))	Start game with entering names of the players	A board appears on screen with every smaller square indicating position	System displays game board with coordinates
SE-F-038	FR9	Check that system can display board with the following notable features [1] (look below table)	Start game with entering names of the players	A board has notable features on a given squares	System displays game board with coordinates
SE-F-039	FR9	Check that system can indicate each ship and port in a clear way	Start game with entering names of the players	A board has 4 coloured ships with 4 coloured Home ports. This shows which ship belongs to which port	System displays data on game board correctly
SE-F-040	FR9	Check that system can display total distance the player can move in single turn	Start game with entering names of the players	A board shows where player can move	System displays possible moves to the player

SE-F-041	FR9	Check that system can display items of treasure in the player's ship	Start game with entering names of the players	Number of items of treasure in the player's ship	System displays data on the board
SE-F-042	FR9	Check that system can display location and orientation of the player's ship	Start game with entering names of the players	A board shows location of the player's	System displays data on the board
SE-F-043	FR9	Check that system can display name of the player's Home Port	Start game with entering names of the players	A board shows player's Home Port	System displays data on the board
SE-F-045	FR9	Check that system can display any Chance cards retained in player's hand	Start game with entering names of the players	A game shows cards in player's hand	System displays data on the board
SE-F-046	FR9	Check that system can display items of treasure in the port	Start game with entering names of the players	A board shows items of treasure in the port	System displays data on the board
SE-F-047	FR9	Check that system can display number of each card at the port	Start game with entering names of the players	A board shows number of cards at the specific port	System displays data on the board
SE-F-048	FR9	Check that system can display value of each card at the port	Start game with entering names of the players	A board shows value of each card at the specific port	System displays data on the board
SE-F-049	FR9	Check that system can display name of the players for whom it is the Home Port	Start game with entering names of the players	A board shows each player Home Port	System displays data on the board
SE-F-050	FR9	Check that system can display Home Port without an owner	Start game with entering names of the players	Error message warns that specific player doesn't have Home port	System displays "No Home Port" message
SE-F-051	FR9	Check that system can display items of treasure at Flat Island	Start game with entering names of the players	A board shows items of treasure at Flat Island	System displays data on the board
SE-F-052	FR9	Check that system can display number of cards at Flat Island	Start game with entering names of the players	A board shows number of cards at Flat Island	System displays data on the board

SE-F-053	FR9	Check that system can display value of each card at Flat Island	Start game with entering names of the players	A board shows number of cards at Flat Island	System displays data on the board
SE-F-054	FR10	Check that each player is dealt five cards from the crew card pack	---	Each player can check all his crew cards on his hand	Data is stored correctly
SE-F-055	FR10	Check that each of the Trading ports are dealt two crew cards	---	Two cards that each Trading port contains	Data is stored correctly
SE-F-056	FR10	Check that the value of items at the Trading port is made up to 8 by adding diamond or ruby	Two cards dealt are 1 and 2 making 3	Treasure placed in the port is diamond or ruby	Data is stored correctly
SE-F-057	FR10	Check that the value of items at the Trading port is made up to 8 by adding gold bar	Two cards dealt are 2 and 2 making 4	Treasure placed in the port is gold bar	Data is stored correctly
SE-F-058	FR10	Check that the value of items at the Trading port is made up to 8 by adding pearl	Two cards dealt are 2 and 3 making 5	Treasure placed in the port is pearl	Data is stored correctly
SE-F-059	FR10	Check that the value of the items at the Trading port is made up to 8 by adding barrel of rum	Two cards dealt are 3 and 3 making 6	Treasure placed in the port is barrel of rum	Data is stored correctly
SE-F-060	FR11	Check that turns will be given to the players in order London, Genoa, Marseilles, Cadiz	All Home Ports (London, Genoa, Marseilles, Cadiz)	Home ports in appropriate order	Data is stored correctly
SE-F-061	FR11	Check that turns won't be given to the players in order London, Genoa, Marseilles, Cadiz	All Home Ports (London, Genoa, Marseilles, Cadiz)	Home ports in wrong order	System displays message "Turns are given in wrong order"



SE-F-062	FR11	Check that player can move his ship or turn his ship if he is out of port	Specific player's name	Two actions (Move a ship or Turn a ship)	Data is stored correctly
SE-F-063	FR11	Check that player can only move a ship if he is in a port	Specific player's name	One action (Move a ship)	Data is stored correctly
SE-F-064	FR11	Check that player can move his ship or turn his ship if he is in a port	Specific player's name	Two actions (Moved a ship or Turn a ship)	System displays message "Player can't turn a ship when he is in a port"
SE-F-065	FR11	Check that all squares in the direction that the player is facing are displayed when he is out of port	Specific player's name	All squares in the direction that player is facing	Data is stored correctly
SE-F-066	FR11	Check that all squares in all directions are displayed when the player is in a port	Specific player's name	All squares in all directions from port	Data is stored correctly
SE-F-067	FR11	Check that Treasure Island or another player's port are not legal choices for a move when they are occupied	Specific player's name	All squares available for the player except the coast of Treasure Island and another player's port	Data is stored correctly
SE-F-068	FR11	Check that the coast of Treasure Island or another player's port are legal choices for a move when they are occupied	Specific player's name	All squares available for the player including the coast of Treasure Island and another player's port	System displays message "You can't attack another player when he is on the coast of Treasure Island or in a port"
SE-F-069	FR11	Check that system asks whether player wishes to attack the moving ship when he moves through square occupied by another player	Square chosen by player to move to	Message displayed "Do you wish to attack the moving ship"	Data is stored correctly

SE-F-070	FR12	Check that system compares players' strength appropriately	Fighting strength of both players	Player that has greater fighting strength	Data is stored correctly
SE-F-071	FR12	Check that winner is awarded a treasure when loser has one	Treasure in loser's hand	Treasure in winner's hand	Data is stored correctly
SE-F-072	FR12	Check that treasure from loser goes to Treasure Island when winner already has two treasures	Winner's hand	All Treasure Island's treasures with one returned from loser's hand	Data is stored correctly
SE-F-073	FR12	Check that two lowest value cards from loser's hand go to winner	Two cards from loser's hand	Winner's hand with two cards from loser	Data is stored correctly
SE-F-074	FR12	Check that lowest value card from loser's hand goes to winner if loser has only one card	Card from loser's hand	Winner's hand with a card from loser	Data is stored correctly
SE-F-075	FR12	Check that system allows loser to move	---	All squares in direction previously chosen by loser	Data is stored correctly
SE-F-076	FR12	Check that winner remains in the direction he was already moving	---	Square that winner is facing to	Data is stored correctly
SE-F-077	FR13	Check that system can recognize when the end of player's turn is	Make a move on Treasure Island during your turn	The game is giving turn to next player	System passes turn to the next player
SE-F-077	FR13	Check that system can use Chance card at the top of the stack to appropriate player	Make a move on Treasure Island and wait for a card	Chance card appears and it is applying what it says to the game	Data is assigned correctly
SE-F-078	FR14	Check that system can award appropriate player with treasures	Make a move on Flat Island and wait for a treasure	Treasure appears in the ship of a player	Data is stored correctly

SE-F-079	FR14	Check that system can pick most valuable treasure if there is no space on a ship	Make a move on Flat Island and wait for a treasure	Most valuable treasure is added to the ship	Data is stored and assigned correctly
SE-F-080	FR14	Check that system can add cards on Flat Island in player's hand	Make a move on Flat Island and wait for cards	Cards appear on player's hand	Data is assigned and stored correctly
SE-F-081	FR15	Check that system can add treasure from ship to Home Port	Reach your Home Port when you have treasures in your ship	Treasures are unloaded to the Home Port	Data is stored correctly
SE-F-082	FR15	Check that system can trade treasures after reaching another port	Reach another port	Trade window appears	System allows for a trade
SE-F-083	FR15	Check that system can trade cards after reaching another port	Reach another port	Trade window appears	System allows for a trade
SE-F-084	FR15	Check that system can display appropriate info during trade	Start a trade	Trade window appears with specific information	System displays data
SE-F-085	FR15	Check that system can block trade with equivalent treasure value on each side	Start a trade	Trade is blocked	System displays "Error" message
SE-F-086	FR15	Check that system can update stock of the port during game	Finish a trade	All data is assigned to appropriate place	Data is stored correctly
SE-F-087	FR15	Check that system can allow players to use cards in their hands	Start a trade	User is able to use cards	System allows for data usage
SE-F-088	FR15	Check that system can add deposited cards to other player's hand	Deposit a card	A card is given to other player's hand	Data is stored and assigned correctly
SE-F-089	FR16	Check that Anchor Bay is reached by the player	Player's ship location (Anchor Bay)	Treasures on Anchor Bay	Data is stored correctly

SE-F-090	FR16	Check that Anchor Bay isn't reached by the player	Player's ship location (Not Anchor Bay)	Error message	System displays message "Player's ship isn't in Anchor Bay"
SE-F-091	FR16	Check that the player holds one of the relevant cards (Kidd's chart)	Player's hand	Kidd's chart card from player's hand	Data is stored correctly
SE-F-092	FR16	Check that the player doesn't hold one of the relevant cards (Kidd's chart)	Player's hand	Error message	System displays message "Player doesn't have any Kidd's chart card"
SE-F-093	FR16	Check that the player can exchange Kidd's chart card for treasure from Anchor Bay	Player's ship capacity	Number of items of treasures on player's ship (Less than 2)	Data is stored correctly
SE-F-094	FR16	Check that the player can't exchange Kidd's chart card for treasure from Anchor Bay	Player's ship capacity	Number of items of treasures on player's ship (Equals 2)	System displays message "Player reached maximum capacity of his ship"
SE-F-095	FR17	Check that the player has at least 20 points of treasure at his Home Port	Treasures from player's ship and treasures from player's Home Port	Points of treasure (Greater than or equals to 20)	System displays message "Player X has won. Congratulations!"
SE-F-096	FR17	Check that the player has less than 20 points of treasure at his Home Port	Treasures from player's ship and treasures from player's Home Port	Points of treasure (Less than 20)	System displays message "Player has? points of treasure, keep fighting"

## REFERENCES

[1]

Port of Venice at (1,7)

Port of London at (1,14)

Port of Cadiz at (14,20)

Port of Amsterdam at (20, 14)

Port of Marseilles at (20,7)

Port of Genoa at (7,1)

Mud Bay at (1,1)

Anchor Bay at (20,1)

Cliff Creek at (20,20)

Flat Island occupies a rectangle with corners (2,16) and (4,19)

Pirate Island occupies a rectangle with corners (17,2) and (19,5)

Treasure Island occupies a rectangle with corners (9,9) and (12,12)

## DOCUMENT HISTORY

<i>Version</i>	<i>Issue No.</i>	<i>Date</i>	<i>Changes made to document</i>	<i>Changed by</i>
1.0	N/A	08/03/2022	N/A - original version	MAM148, MAT78
1.1	N/A	09/03/2022	Cover page, header, footer	MAM148
1.2	N/A	10/03/2022	Document history and references	MAT78