

ID	Description	Related Requirements/components	Catagory	Author	Input	Expected Result	Actual outcome	Pass/fail
1	Play button starts the game on the main menu	Main menu	Manual	Adam	click on play button	The game starts	the game starts	Pass
2	Quit button on the main menu closes the game	Main menu	Manual	Adam	Click on Quit button	The executable closes	The executable closes	Pass
3	Changing the window size functions for main menu	Main menu	Manual	Adam	Maximise screen on main menu	The screen enlargens without any issues	The screen enlargens without any issues	Pass
4	Windowing the game shrinks main menu accordingly	Main menu	Manual	Adam	Maximise screen, then click on windowed mode button (next to close and minimise)	The screen reduces without issue	The screnn reduces without issue	Pass
5	Manually scaling the screen doesn't cause major issues	Main menu	Manual	Adam	shrink screen borders manually to the smallest realistic playable size	The menu is still visible and useable	The menu is still visible and useable	Pass
6	Manually scale the screen to an unrealistic small size	Main menu	Manual	Adam	shrink screen borders manually to the smallest visible size	The game only shrinks to a certain size	The buttons become completely unaccessable and the game cant be played	Fail
7	Manually scale the screen to an unrealistic large size	Main menu	Manual	Adam	Extend screen borders to cover both monitors of a dual monitor computer	The screen scales to fit and still works	The screen scales to fit and still works	Pass
8	Northern movement	Player control Navigation	Manual	Adam	W	The players boat points and moves at 0 degrees	The players boat points and moves at 0 degrees	Pass
9	North eastern movement	Player control Navigation	Manual	Adam	W and D at same time	The players boat points and moves at 45 degrees	The players boat points and moves at 45 degrees	Pass
10	Eastern movement	Player control Navigation	Manual	Adam	D	The players boat points and moves at 90 degrees	The players boat points and moves at 90 degrees	Pass
11	Southeastern movement	Player control Navigation	Manual	Adam	D and S at same time	The players boat points and moves at 135 degrees	The players boat points and moves at 135 degrees	Pass
12	Southern movement	Player control Navigation	Manual	Adam	S	The players boat points and moves at 180 degrees	The players boat points and moves at 180 degrees	Pass
13	Southwestern movement	Player control Navigation	Manual	Adam	S and A at same time	The players boat points and moves at 225 degrees	The players boat points and moves at 225 degrees	Pass
14	Western movement	Player control Navigation	Manual	Adam	A	The players boat points and moves at 270 degrees	The players boat points and moves at 270 degrees	Pass
15	Northwestern movement	Player control Navigation	Manual	Adam	A and W at same time	The players boat points and moves at 315 degrees	The players boat points and moves at 315 degrees	Pass
16	Northern shooting	Player control Combat	Manual	Adam	W then space	A cannonball is fired at 0 degrees	A cannonball is fired at 0 degrees	Pass
17	North eastern shooting	Player control Combat	Manual	Adam	W and D at same time then space	A cannonball is fired at 45 degrees	A cannonball is fired at 45 degrees	Pass
18	Eastern shooting	Player control Combat	Manual	Adam	D then space	A cannonball is fired at 90 degrees	A cannonball is fired at 90 degrees	Pass
19	Southeastern shooting	Player control Combat	Manual	Adam	D and S at same time then space	A cannonball is fired at 135 degrees	A cannonball is fired at 135 degrees	Pass
20	Southern shooting	Player control Combat	Manual	Adam	S then space	A cannonball is fired at 180 degrees	A cannonball is fired at 180 degrees	Pass
21	Southwestern shooting	Player control Combat	Manual	Adam	S and A at same time then space	A cannonball is fired at 225 degrees	A cannonball is fired at 225 degrees	Pass
22	Western shooting	Player control Combat	Manual	Adam	A then space	A cannonball is fired at 270 degrees	A cannonball is fired at 270 degrees	Pass
23	Northwestern shooting	Player control Combat	Manual	Adam	A and W at same time then space	A cannonball is fired at 315 degrees	A cannonball is fired at 315 degrees	Pass
24	Mouse shooting	Player control Combat	Manual	Adam	Click at various positions around ship	A cannonball is fired at the direction the mouse was was at upon clicking	A cannonball is fired at the direction the mouse was was at upon clicking	Pass

25	Terrain collision	Player control navigation	Manual	Adam	sail into island and lake borders	boat stops at shoreline	boat stops at shoreline	Pass
26	Ammo counter empty	Player control combat	Manual	Adam	click until ammo count reaches 0	Game ends on a fail	Game ends on a fail	Pass
27	Change fire modes mid combat click to space	Player control combat	Manual	Adam	Fire a few shots with click, then use space to fire	initial shots move in direction of cursor, subsequent shots move in direction of boat.	initial shots move in direction of cursor, subsequent shots move in direction of boat.	Pass
28	Change fire modes mid combat space to click	Player control combat	Manual	Adam	Fire a few shots with space, then use click to fire	initial shots move in direction of boat, subsequent shots move in direction of cursor	initial shots move in direction of boat, subsequent shots move in direction of cursor	Pass
29	Fire rate manual	Player control combat	Manual	Adam	Fire shots as fast as physically possible with click and space	Shots are fired quickly without causing lag	Shots are fired quickly without causing lag	Pass
30	Fire rate macro	Player control combat	Manual	Adam	Fire shots as fast as possible with an autoclicking macro (roughly 1200 clicks per minute)	Shots are fired quickly without causing lag	Shots are fired quickly without causing lag, but at a rate slower than manual although still more than fast enough,	Pass
31	Quit in game	UI	Manual	Adam	ESC once in game	Game loads an end of game screen	Game loads an end of game screen	Pass
32	Exit button on end of game screen	UI	Manual	Adam	ESC once in game, then click exit	The executable closes	The executable closes	Pass
33	Building destruction	Combat	Manual	Adam	shoot at a building in game	The cannonball destroys the building and disappears	The cannonball destroys the building and disappears	Pass
34	Chest spawns	Gameplay	Manual	Adam	Locate a chest	The chests pick up when sailed over, adding 100 plunder	The chests get picked up when in the general vicinity, adding 100 plunder. Chests occasionally spawn on land but still getpicked up by going near them.	Partial Pass
35	Objective completion	Gameplay	Manual	Adam	do an objective as provided	The next objective is given	The next objective is given	Pass
36	All Objective Completion	Gameplay	Manual	Adam	Do all objectives as provided until they are all complete	The game ends and loads the end of game screen	The game ends and loads the end of game screen	Pass
37	Death of player	Gameplay	Manual	Adam	Get player controlled boat destroyed	The game ends and loads the end of game screen	The game ends and loads the end of game screen	Pass
38	Decrease in health	Gameplay	Manual	Adam	Get damaged by enemy fire	The players health goes down	The players health goes down	Pass
39	AI Ships	Gameplay	Manual	Adam	Go near an AI boat	AI Boats follow but do not attack	AI Boats follow but do not attack	Pass
40	Restart Button on end of game screen	UI	Manual	Adam	Start Game, esc, click restart button	The game restarts	The game restarts	Pass
41	Power up functionality (Double shot)	Gameplay	Manual	Adam	Pick up power up, perform accosiated action	Weapon fires 2 cannonballs at a time	Weapon fires 2 cannonballs at a time	Pass
42	Power up functionality (Shield)	Gameplay	Manual	Adam	Pick up power up, perform accosiated action	temporary immunity	temporary immunity	Pass
43	Power up functionality (Health)	Gameplay	Manual	Adam	Pick up power up, perform accosiated action	health set back to 100 from a lower value, nothing otherwise	health set back to 100 from a lower value, nothing otherwise	Pass
44	Power up functionality (Speed)	Gameplay	Manual	Adam	Pick up power up, perform accosiated action	Ship moves faster	Ship moves (slightly) faster	Pass
45	Power up functionality (2X)	Gameplay	Manual	Adam	Pick up power up, perform accosiated action	more points provided	more points provided	Pass
46	Shop Ammo Purchase and function	UI	Manual	Adam	Buy ammo from shop	Extra Ammo added	Extra Ammo added	Pass
47	Shop Health Purchase and function	UI	Manual	Adam	Buy health from shop	Extra health added	Extra health added	Pass
48	Destroying colleges before assigned	Gameplay	Manual	Adam	Destroy some college that isnt the current objective	When it should be assigned, the award is granted immediately	When it should be assigned, the award is granted immediately	Pass
49	Easy Mode Functionality	Main Menu	Manual	Adam	Start the game on easy mode	Game starts with extra (100) health and 50 ammo	Game starts with extra (100) health and 50 ammo	Pass
50	Normal Mode Functionality	Main Menu	Manual	Adam	Start the game on normal mode	Game starts with normal (80) health and 30 ammo	Game starts with normal (80) health and 30 ammo	Pass
51	Hard Mode Functionality	Main Menu	Manual	Adam	Start the game on hard mode	Game starts with low (60) health and 30 ammo	Game starts with low (60) health and 30 ammo	Pass

52	Saving Functionality (easy mode save)	UI/Main Menu	Manual	Adam	Start a game on easy mode, fire 3 cannonballs to differentiate from fresh, save, restart game and click continue	Game continues from where it was saved with all proper values	Game continues from where it was saved with all proper values	Pass
53	Saving Functionality (normal mode save)	UI/Main Menu	Manual	Adam	Start a game on normal mode, fire 3 cannonballs to differentiate from fresh, save, restart game and click continue	Game continues from where it was saved with all proper values	Game continues from where it was saved with all proper values	Pass
54	Saving Functionality (hard mode save)	UI/Main Menu	Manual	Adam	Start a game on hard mode, fire 3 cannonballs to differentiate from fresh, save, restart game and click continue	Game continues from where it was saved with all proper values	Game continues from where it was saved with all proper values	Pass
55	Restart Button on end of game screen (easy settings)	UI	Manual	Adam	start an easy game, fire a few cannonballs, esc, click restart	Game restarts as a standard easy mode game	Game restarts as a standard easy mode game	Pass
56	Restart Button on end of game screen (normal settings)	UI	Manual	Adam	start a normal game, fire a few cannonballs, esc, click restart	Game restarts as a standard normal mode game	Game restarts as a standard easy mode game	Partial Pass
57	Restart Button on end of game screen (hard settings)	UI	Manual	Adam	start a hard game, fire a few cannonballs, esc, click restart	Game restarts as a standard hard mode game	Game restarts as a standard easy mode game	Partial Pass
58	Alter save file with new values	Other	Manual	Adam	Create a save, close the game, edit the JSON file with unrealistic values, load save	Game loads in with new values	Game loads in with new values	Pass
59	Extreme health values	Other	Manual	Adam	Create a save, alter it with Impossible (10,000,000,000) health and restart the game	Game loads in with new values and functions as normal	Game loads in with new values and functions as normal	Pass
60	Extreme ammo values	Other	Manual	Adam	Create a save, alter it with Impossible (10,000,000,000) ammo and restart the game	Game loads in with new values and functions as normal	Game loads in with new values and functions as normal	Pass
61	Extreme plunder values	Other	Manual	Adam	Create a save, alter it with Impossible (10,000,000,000) plunder and restart the game	Game loads in with new values and functions as normal	Game loads in with new values and functions as normal	Pass
62	Negative health values	Other	Manual	Adam	Create a save, alter it with Impossible (-1) ammo and restart the game	Game ends immediately due to no/negative health being a fail state	Game ends immediately due to no/negative health being a fail state	Pass
63	Negative ammo values	Other	Manual	Adam	Create a save, alter it with Impossible (-1) ammo and restart the game	Game ends immediately due to no/negative ammo being a fail state	Game ends immediately due to no ammo being a fail state	Pass
64	Negative plunder values	Other	Manual	Adam	Create a save, alter it with Impossible (-1) plunder and restart the game	Game loads in with new values and functions as normal (ie player is in plunder debt)	Game loads in with new values and functions as normal (ie player is in plunder debt)	Pass
65	Runs on Linux	Other	Manual	Adam	Load the game on linux and see if it works	Game loads and runs normally	Game loads and runs normally	Pass
66	Runs on Mac	Other	Manual	Adam	Load the game on Mac and see if it works	Game loads and runs normally	Game loads and runs normally	Pass
67	Runs on Windows	Other	Manual	Adam	Load the game on Windows and see if it works	Game loads and runs normally	Game loads and runs normally	Pass
68	User input smoothness	Other	Manual	Adam	Check for noticable input lag	Game plays smoothly with no noticable input lag	Game plays smoothly with no noticable input lag	Pass
69	Colourblind check	Other	Manual	Adam	Make sure game adheres to clourblindness	Game is playable with no issues by colourblind people	Game is playable with no issues by colourblind people	Pass
70	Epilepsy Check	Other	Manual	Adam	Make sure game has no flashing animations or effects	Game is playable with no issues involving deliberate or indeliberate flashing effects	Game is playable with no issues involving deliberate or indeliberate flashing effects	Pass
71	Enemy ship fires back	Combat	Manual	Adam	sail near an enemy ship and see if they attack	Enemy ships attack the player	Enemy ships attack the player	Pass
72	Enemy ship converts to friendly after hitting them	Combat	Manual	Adam	Attack the enemy ships until they are "defeated", see if they convert to friendly	Ship converts to friendly after being "defeated"	Ship converts to friendly after being "defeated"	Pass
73	Friendly ships attack enemy colleges	Combat	Manual	Adam	Gather some friendly ships, then sail to an enemy college. see if the friendly ones fire at the college itself	The ships fire at the college	The ships dont attempt to directly fire at the college but do hit them with collateral shots from firing at boats	Partial Pass
74	Boss attacks player	Combat	Manual	Adam	Sail near boss and see if it attacks	boss shoots at player	boss shoots at player	Pass

76	Tornado damages player	Combat	Manual	Adam	Sail into tornado weather and see if it damages player	Tornado damages player	Tornado damages player	Pass
78	Ammo counter	UI	Manual	Adam	Fire a cannonball and see if ammo decrements	Ammo decrements	Ammo decrements	Pass
80	Stuttering	Other	Manual	Adam	Play a full round of the game and note any stutters	Gameplay is smooth throughout	Gameplay is smooth throughout	Pass
81	Instructions	Other	Manual	Adam	Gameplay instructions should be obvious and easy to understand	Instructions are simple and clearly visible	Instructions are simple and clearly visible	Pass
82	Navigation	Other	Manual	Adam	Navigate to where the game tells you to go	Navigating to objectives should be intuitive	Navigating to chests is relatively easy as it gives you a compass direction. Without prior knowledge college navigation can prove difficult as you need to sail around and find it first.	Partial Pass
83	Distance Observation	Other	Manual	Adam	Observe someone else play the game from 2 meters distance	The gameplay is visible and watchable	The gameplay is visible and watchable	Pass
84	Timer display on end of game	UI	Manual	Adam	When an end of game state is reached (esc, win/lose), a timer of how long the game lasted should display	The timer is displayed at end of game	The timer is displayed at end of game	Pass
85	Timer resets on restart	UI	Manual	Adam	Start a game, wait a few seconds, end it, restart then immediately end the new game	The timer value is reset	The timer value is reset	Pass
86	points gained when interacting with tornado	Combat	Manual	Adam	Sail into the tornado and check to see if points increases	Points increases	Points increases	Pass
87	Ships reset on restart	AI	Manual	Adam	Ally some ships, then restart the game. See if they get reset to being hostile.	Ships get reset	Ships get reset	Pass
88	Points displayed on end of Game screen	UI	Manual	Adam	When an end of game state is reached (esc, win/lose), point count should be displayed	Plunder is displayed at end of game	Plunder is displayed at end of game	Pass
89	Points on End of Game screen reset on restart	UI	Manual	Adam	Start a game, earn some points, end game, restart then immediately end the new game	Points get reset	Points get reset	Pass
90	Enemies do not attack each other	AI	Manual	Adam	Ensure allied enemy ships do not attack each other	Ships do not attack each other	Ships do not attack each other	Pass
91	Powerup Duration easy	Gameplay	Manual	Adam	Pick up power up, time 50 seconds	Power up lasts 50 seconds	Power up lasts 50 seconds	Pass
92	Powerup Duration normal	Gameplay	Manual	Adam	Pick up power up, time 30 seconds	Power up lasts 30 seconds	Power up lasts 30 seconds	Pass
93	Powerup Duration hard	Gameplay	Manual	Adam	Pick up power up, time 10 seconds	Power up lasts 10 seconds	Power up lasts 10 seconds	Pass