

Manual Tests									
TestID	Inputs	Expected Outputs	Actual Outputs	Pass/Fail	Reasons for Failure	Rationale	Steps to perform test	Evidence	Author
boatSelectionTest	Enter the boat selection screen and press left and right	This should show every boat and their corresponding stats	All boats were shown with their corresponding stats	Pass	N/A	This test is conducted as a visual test as we can more accurately show each boats stats and that they are rendered correctly	Play Game, Press Space to go to boat selection screen, press left and right	<a href="https://drive.google.com/file/d/14ovEBwUHH0OahwAmMSIy6-NADtQO8C/view?usp=sharing">https://drive.google.com/file/d/14ovEBwUHH0OahwAmMSIy6-NADtQO8C/view?usp=sharing</a>	Joseph Wrieden
controlsTest	Play the game and press left right, up and down on the arrow keys	The boat should move: Left(left arrow), right(right arrow, speedup (up arrow), slow down (down arrow)	The boat moved as expected	Pass	N/A	This test is conducted as a visual test as the test involves the graphical response to the pressing of the controls	Play Game, Press Space to go to boat selection screen, choose a boat and once round startspress movement arrow keys and observe movement	<a href="https://drive.google.com/file/d/1vueXyYBXiEaOYp-H8Uz2VIF_CbMdKe4w1/view?usp=sharing">https://drive.google.com/file/d/1vueXyYBXiEaOYp-H8Uz2VIF_CbMdKe4w1/view?usp=sharing</a>	Joseph Wrieden
maxSpeedTest	Play the game and reach maximum speed and then press the up arrow	The boat should just continue at the maximum speed and not increase in speed	The boat stayed at maximum speed and didn't speed up	Pass	N/A	This test is conducted as a visual test as using a combination of the speed bar and looking at the boat speed allows us to easily determine if the max speed has been reached	Play Game, Press Space to go to boat selection screen choose a boat and one round start then reach maximum speed and press forward to observe if you continue to speed up	<a href="https://drive.google.com/file/d/1WYJ475sq5GfE8eV9yOzlyyu-XBAYVwsh/view?usp=sharing">https://drive.google.com/file/d/1WYJ475sq5GfE8eV9yOzlyyu-XBAYVwsh/view?usp=sharing</a>	Joseph Wrieden
minSpeedTest	Play the game and reach zero speed and press the down arrow	The boat should not move backwards and instead should just stay still	The boat stayed still as expected and didn't go into reverse	Pass	N/A	This test is conducted as a visual test as using a combination of the speed bar and looking at the boat allows us to easily determine if once the boat is at a stop if it begins to reverse	Play Game, Press Space to go to boat selection screen choose a boat and one round start then come to a stop and press the backwards arrow keyu and see if the boat reverses	<a href="https://drive.google.com/file/d/1H5nhHPvIA03hF_qOwuNOGL5_q795fiDg/view?usp=sharing">https://drive.google.com/file/d/1H5nhHPvIA03hF_qOwuNOGL5_q795fiDg/view?usp=sharing</a>	Joseph Wrieden
roundsTest	Play the game	After round one the game will move to the next round resetting the race	After round one the game moved onto the next round and reset the race	Pass	N/A	This test is conducted as a visual test as it is easy to see if the round has been reset correctly using a visual test as then we can test that we are able to control the boat after the round reset	Play Game, Press Space to go to the boat selection screen choose a boat and then play through a whole round, once round finishes then observe if next round begins	<a href="https://drive.google.com/file/d/1xzAJVGIUJclLpVcMaXuR5zhXYudSuuck/view?usp=sharing">https://drive.google.com/file/d/1xzAJVGIUJclLpVcMaXuR5zhXYudSuuck/view?usp=sharing</a>	Joseph Wrieden
finishLineRenderTest	Play the game to the end of the round	As you get towards the end of the round the finish line should render	As expected when we reached the end of the round the finishline rendered	Pass	N/A	This test is conducted as a visual test as the test relies on rendering and thus needs to be conducted visually	Play Game, Press Space to go to the boat selection screen and choose a boat. Then play through to the end of the round and observe if a finish line is rendered down the screen	<a href="https://drive.google.com/file/d/1BkJLpZfo4FxxKeTui7dUitxtfTZA_/view?usp=sharing">https://drive.google.com/file/d/1BkJLpZfo4FxxKeTui7dUitxtfTZA_/view?usp=sharing</a>	Joseph Wrieden
enterFinalTest	Play the game to the end and reach the final	The game progresses you to the final	The boat entered the final as expected	Pass	N/A	This test is conducted as a visual test it is easy to tell if the user has entered the final using the inter-round on-screen text	Play Game, Press Space to go to the boat selection screen choose a boat and then play the game through the three rounds coming top and then see if you enter the final	<a href="https://drive.google.com/file/d/1oR-ucISoipNCxG9eg_IfILzhiPwkMnf_d/view?usp=sharing">https://drive.google.com/file/d/1oR-ucISoipNCxG9eg_IfILzhiPwkMnf_d/view?usp=sharing</a>	Joseph Wrieden
missFinalTest	Play the game to the end and miss out on the final	The game tells you, you missed out on the final	The boat did not get into the final as expected	Pass	N/A	This test is conducted as a visual test as it is easy to tell if the user has missed out on the final round using the inter-round onscreen text	Play Game, Press Space to go to the boat selection screen choose a boat and then play the game through the three rounds coming bottom and see if you do not enter the final	<a href="https://drive.google.com/file/d/14PJaR4P87kaduj-7lpY3zyfLGMiuZXPE/view?usp=sharing">https://drive.google.com/file/d/14PJaR4P87kaduj-7lpY3zyfLGMiuZXPE/view?usp=sharing</a>	Joseph Wrieden
chosenBoatRenderTest	Choose a spesific boat and play the game	Your chosen boat is in the middle lane	The boat was rendered in the correct lane	Pass	N/A	This test is conducted as a visual test as it is a render test and thus needs to be done visually	Play Game, Press Space to go to the boat selection screen and choose a boat, then when the game starts observe if your boat is in the correct middle lane	<a href="https://drive.google.com/file/d/1ytJ2H6tPwgSD-TcybhUlxoo0xdnGX3GS/view?usp=sharing">https://drive.google.com/file/d/1ytJ2H6tPwgSD-TcybhUlxoo0xdnGX3GS/view?usp=sharing</a>	Joseph Wrieden
CPUBoatRenderTest	Choose a specific boat and play the game	All CPUBoats are rendered into their spesfic lanes	All CPUBoats were rendered correctly into their lanes	Pass	N/A	This test is conducted as a visual test as it is a render test and thus needs to be done visually	Play Game, Press Space to go to the boat selection screen and choose a boat, then when the game starts observe if the CPUBoats are all in their correct lanes	<a href="https://drive.google.com/file/d/1ytJ2H6tPwgSD-TcybhUlxoo0xdnGX3GS/view?usp=sharing">https://drive.google.com/file/d/1ytJ2H6tPwgSD-TcybhUlxoo0xdnGX3GS/view?usp=sharing</a>	Joseph Wrieden
staminaBarDecreaseTest	Play the game, and press forward and left and right	When forward or left or right is pressed the Stamina bar should decrease	The stamina bar decreased as expected when any directional key was pressed	Pass	N/A	This test is conducted as a visual test as it requires us looking at the stamina bar rendered onto the screen during the round	Play Game, Press Space to go to the boat selection scrteen, then choose boat and play the game. Press some directional keys and then observe if the stamina bar decreases	<a href="https://drive.google.com/file/d/14gGgecvEbsDtBdWhPswMit3H9JbJsdSEGvlew?usp=sharing">https://drive.google.com/file/d/14gGgecvEbsDtBdWhPswMit3H9JbJsdSEGvlew?usp=sharing</a>	Joseph Wrieden
staminaBarRegenTest	Play the game, and press forward and left and right and then stop	The stamina bar once reduced should slowly regenerate back up	The stamina bar regenerated once the directional keys stopped being pressed	Pass	N/A	This test is conducted as a visual test as using the stamina bar it is easy to tell if the boats stamina is regenerating	Play Game, Press Space to go to the boat selection scrteen, then choose boat and play the game. Press some directional keys and then stop and observe if the stamina bar regenerates	<a href="https://drive.google.com/file/d/1R4qWedDbhcbPA3mVJLZUnNMDR9Aiw5AwEV/view?usp=sharing">https://drive.google.com/file/d/1R4qWedDbhcbPA3mVJLZUnNMDR9Aiw5AwEV/view?usp=sharing</a>	Joseph Wrieden
obstacleCollideTest	Play the game, and collide with an obstacle	When colliding with an obstacle the Health, stamina and speed should decrease	The health, stamina and speed were decreased	Pass	N/A	This test is conducted as a visual test as it is easy to test the effects of colliding with an obstacle by using the stamina bar, health bar and speed bar on collision	Play Game, Press Space to go to the boat selection screen, then choose a boat and play the game. Collide with an obstacle during the round and observe if your health decreases	<a href="https://drive.google.com/file/d/1Fg0P4t4kyQcp5_tluquP5mhylLZgocq/view?usp=sharing">https://drive.google.com/file/d/1Fg0P4t4kyQcp5_tluquP5mhylLZgocq/view?usp=sharing</a>	Joseph Wrieden

progressBarTest	Play the game	When moving along the map the progress bar should gradually go up the bar until the game is completed	The progress bar gradually went up as expected	Pass	N/A	This test is conducted as a visual test as it requires us looking at the progress bar rendered onto the screen during the round	Play Game, Press Space to go to the boat selection screen, then choose a boat and play the game. As the round progresses observe that the progress bar is slowly increasing	<a href="https://drive.google.com/file/d/1D6PAeQxtTL5XAMGcXcQPHxplHV34hf1X/view?usp=sharing">https://drive.google.com/file/d/1D6PAeQxtTL5XAMGcXcQPHxplHV34hf1X/view?usp=sharing</a>	Joseph Wrieden
saveGameExitTest	Play the game and press one of the save buttons	When the save button is pressed the game exits	When the save button was pressed the game saved and exited	Pass	N/A	This test is conducted as a visual test as we can easily show that the game exits on saving the game visually	Play Game, Press Space to go to the boat selection screen, then choose a boat and play the game. One the round begins and you are part way through press one of the save buttons and observe if it exits	<a href="https://drive.google.com/file/d/1g182rbYEFwLwLuwrs0N1aubQB0ZHuIr/view?usp=sharing">https://drive.google.com/file/d/1g182rbYEFwLwLuwrs0N1aubQB0ZHuIr/view?usp=sharing</a>	Joseph Wrieden
loadGameTest	Press one of the load buttons from the Boat Choice screen	The game will load from where the previous save file was saved	When the load button was pressed the game continued where where it was saved	Pass	N/A	This test is conducted as a visual test as we can visually show the state of the game before the save and then show how it looks after loading, this produces a reliable and simple test	Play the game, Press Space to go to the boat selection screen, then choose a boat and play the game. Once the round begins then save part way through the round making note of where you saved. Then replay the game and press space to go to the boat selection screen and press the corresponding load button. Then observe if the game is in the same state as previously	<a href="https://drive.google.com/file/d/1UFd7GhKE0uzK6GItRXPNe9T-dr2blfm7/view?usp=sharing">https://drive.google.com/file/d/1UFd7GhKE0uzK6GItRXPNe9T-dr2blfm7/view?usp=sharing</a>	Joseph Wrieden
obstacleRenderTest	Play the game	Obstacles should render in each lane	Obstacles were rendered correctly in each lane	Pass	N/A	This test is conducted as a visual test as it is a render test and thus needs to be done visually	Play the Game, Press Space to go to the boat selection screen, then choose a boat and play the game. Then observe if obstacles render into your, and other boats lanes	<a href="https://drive.google.com/file/d/18b-QClyQlHYkvrH7MRbU1YAGMQMrDPr/view?usp=sharing">https://drive.google.com/file/d/18b-QClyQlHYkvrH7MRbU1YAGMQMrDPr/view?usp=sharing</a>	Joseph Wrieden
powerUpRenderTest	Play the game	Each powerup should be rendered with their corresponding image	The powerups were rendered correctly in each lane	Pass	N/A	This test is conducted as a visual test as it is a render test and thus needs to be done visually	Play the Game, Press Space to go to the boat selection screen then choose a boat and play the game and observe if PowerUps render in your's and other boats lanes	<a href="https://drive.google.com/file/d/1eTWY67WnbNwj3I8YdhbSnAORx0oJa_VH/view?usp=sharing">https://drive.google.com/file/d/1eTWY67WnbNwj3I8YdhbSnAORx0oJa_VH/view?usp=sharing</a>	Joseph Wrieden
penaltyTimeTest	Play the game and leave the lane and finish the race	The player should incur a penalty time at the end of the race	When the player left the lane during the round a penalty was incurred	Pass	N/A	This test is conducted as a visual test as during a round we can show the boat leaving the lane and then using the inter-round screen you can easily see that the player has incured a penalty	Play the Game, Press Space to go to the boat selection screen then choose a boat and play the game. Then during the round leave the lane for a period of time and observe if at the end of the round you incur a penalty	<a href="https://drive.google.com/file/d/1ZnQwf7Ne8wxX9W6uUKoU2lV95Tfgrax/view?usp=sharing">https://drive.google.com/file/d/1ZnQwf7Ne8wxX9W6uUKoU2lV95Tfgrax/view?usp=sharing</a>	Joseph Wrieden
CPUBoatAvoidObstaclesTest	Play the game	The CPUBoats should make an effort to avoid obstacles	The CPUBoats moved away from the obstacles as expected	Pass	N/A	This test is conducted as a visual test as during the round you can see whether the CPUBoats are actively avoiding the obstacles that are approaching them	Play the Game, Press Space to go to the boat selection screen then choose a boat and play the game. Then during the round observe if when an obstacle is heading towards a CPUBoat if the boat makes an attempt to move away from that obstacle	<a href="https://drive.google.com/file/d/1cnhw4YJkQsHfQSVY_NrdQ6m18bYeNtgZ/view?usp=sharing">https://drive.google.com/file/d/1cnhw4YJkQsHfQSVY_NrdQ6m18bYeNtgZ/view?usp=sharing</a>	Joseph Wrieden
CPUBoatGoToPowerUpTest	Play the game	The CPUBoats should make an effort to move towards PowerUps	The CPU boats moved towards powerups as expected	Pass	N/A	This test is conducted as a visual test as during the round you can see whether the CPUBoats are actively moving towards the PowerUps coming towards them	Play the Game, Press Space to go to the boat selection screen and choose a boat and play the game. Then during the round observe if when an PowerUp is heading towards a CPUBoat if the boat makes an attempt to move towards that PowerUp	<a href="https://drive.google.com/file/d/1VmGxljSHfHfHM-2bY0oUACbBoDOhL5GyYv/view?usp=sharing">https://drive.google.com/file/d/1VmGxljSHfHfHM-2bY0oUACbBoDOhL5GyYv/view?usp=sharing</a>	Joseph Wrieden
boatBreakTest	Play the game	Once the boat reaches zero health a screen should say your boat broke	Once the boat broke the expected screen was displayed	Pass	N/A	This test is conducted as a visual test as we are testing that an appropriate screen is displayed and thus needs a visual test	Play the Game, Press Space to go to the boat selection screen and choose a boat and play the game. Then during the round aim towards Obstacles aiming to lose all of your health. Apom reaching 0 HP observe if the boat broke screen appears	<a href="https://drive.google.com/file/d/1XWJ">https://drive.google.com/file/d/1XWJ</a>	Benji Garment