

Test ID	Description	Related Requirements/Components	Category	Author	Input Data	Expected Outcome	Actual Outcome	Status (Pass/Fail)
ToolsTest_testCollision	Detects collisions between hitboxes	FR_COLLISION_DETECTION	BBox	Nam Duong, Darcy Adams	Width: 5, x: 0 3, Height: 1	Detected collision	Detected collision	Pass
ToolsTest_testBoundary	Detects collisions between the lanes and boat hitboxes	FR_BOUNDARY_DETECTION	BBox	Nam Duong, Darcy Adams	x: 0, y: 0, width: 10, round: 1, x: 15, y: 15, width: 10, round: 1	Return true if the hitboxes intersect, false otherwise	Return true if the hitboxes intersect, false otherwise	Pass
CollidableTest_testRockUpdate	Tests if the rock object updates in the y and x axis.	Collidable and CollidableType classes. / FR_HIT_DECREASE_BOAT_CONDITION	WBox	Will Dunlop, Jakob Grzmil	deltaTime: 2, velY: 5	Y moves whilst X doesn't move.	Y moves whilst X doesn't move.	Pass
DifficultySelectionTest_testSelectEasy	Testing if setting difficulty to EASY applies appropriate settings.	FR_DIFFICULTY_SELECTION	WBox	David Kacs	Setting difficulty to EASY	Variables are set in accordance with the original issue	Variables are set in accordance with the original issue	Pass
DifficultySelectionTest_testSelectMedium	Testing if setting difficulty to MEDIUM applies appropriate settings.	FR_DIFFICULTY_SELECTION	WBox	David Kacs	Setting difficulty to MEDIUM	Variables are set in accordance with the original issue	Variables are set in accordance with the original issue	Pass
DifficultySelectionTest_testSelectHard	Testing if setting difficulty to HARD applies appropriate settings.	FR_DIFFICULTY_SELECTION	WBox	David Kacs	Setting difficulty to HARD	Variables are set in accordance with the original issue	Variables are set in accordance with the original issue	Pass
DifficultySelectionTest_testSelectVeryHard	Testing if setting difficulty to VERYHARD applies appropriate settings.	FR_DIFFICULTY_SELECTION	WBox	David Kacs	Setting difficulty to VERYHARD	Variables are set in accordance with the original issue	Variables are set in accordance with the original issue	Pass
ManualTest_testMultipleDifficulties	Tests if there are multiple difficulties to select. Manual test.	UR_DIFFICULTY_BEFORE_GAME	BBox	David Kacs	Try selecting all difficulty levels (requires restarting of the game).	Multiple difficulties on the difficulty select screen which can be interacted with.	Multiple difficulties on the difficulty select screen which can be interacted with.	Pass
SaveTest_saveRaceTest	Create every possible Race object. (One for every boat type and round). Creates a second object with the same parameters. Saves the first Race, then restores the second one. Check if they are equal.	FR_SAVE_GAME/FR_LOAD_GAME	WBox	David Kacs	Every combination of boat type and round number	Race after saving is the same as race after reloading	Race after saving is the same as race after reloading	Pass
PrefsTest_integerTest	Saving an reloading integers.	Saving and reloading	Bbox	David Kacs	200, 0, -1, Integer.MAX_VALUE, Integer.MIN_VALUE	Restored integer is equal to the saved integer.	Restored integer is equal to the saved integer.	Pass
PrefsTest_floatTest	Saving an reloading floats	Saving and reloading	Bbox	David Kacs	0.4, 0, -0.4, Float.MAX_VALUE, Float.MIN_VALUE	Restored float is equal to the saved float.	Restored float is equal to the saved float.	Pass
PrefsTest_arrayTest	Saving an reloading Float[] arrays	Saving and reloading	Bbox	David Kacs	[0.4, 0, -0.3, Float.MIN_VALUE, Float.MAX_VALUE, 0.7, 0.3, 0.11], array with 512 elements, []	Restored array is equal to the saved array.	Restored array is equal to the saved array.	Pass
PrefsTest_vector2Test	Saving an reloading LibGDX Vector2	Saving and reloading	Bbox	David Kacs	(2.3f, 4.5f), (0f, -4.5f), (Float.MAX_VALUE, Float.MIN_VALUE)	Restored Vector2 is equal to the saved Vector2.	Restored Vector2 is equal to the saved Vector2.	Pass
PrefsTest_boatTypeTest	Saving an reloading BoatType	Saving and reloading	Bbox	David Kacs	Every BoatType	Restored BoatType is equal to the saved BoatType.	Restored BoatType is equal to the saved BoatType.	Pass
PrefsTest_openThrowTest	Opening an invalid save file throws an exception	Saving and reloading	Bbox	David Kacs	Trying to open an invalid save file	Prefs.SaveDoesNotExist exception thrown	Prefs.SaveDoesNotExist exception thrown	Pass
PrefsTest_openNoThrowTest	Opening a valid save file does not throw an exception	Saving and reloading	Bbox	David Kacs	Trying to open a valid save file	No exception thrown	No exception thrown	Pass
PrefsTest_closeTest	Closing a save file after saving marks it as valid	Saving and reloading	Bbox	David Kacs	Trying to close a save file	"save_exists" key is written to the save file	"save_exists" key is written to the save file	Pass
CollidableTest_testBranchUpdate	Tests if the branch object updates in the y and x axis.	Collidable and CollidableType classes.	WBox	Will Dunlop, Jakob Grzmil	deltaTime: 2, velY: 5	Y moves whilst X doesn't move.	Y moves whilst X doesn't move.	Pass
CollidableTest_testLeafUpdate	Tests if the leaf object updates in the y and x axis.	Collidable and CollidableType classes.	WBox	Will Dunlop, Jakob Grzmil	deltaTime: 2, velY: 5	Y moves whilst X doesn't move.	Y moves whilst X doesn't move.	Pass
CollidableTest_testInvulnUpdate	Tests if the invuln object updates in the y and x axis.	Collidable and CollidableType classes.	WBox	Will Dunlop, Jakob Grzmil	deltaTime: 2, velY: 5	Y moves whilst X doesn't move.	Y moves whilst X doesn't move.	Pass

CollidableTest_testSpeedUpUpdate	Tests if the speedup object updates in the y and x axis.	Collidable and CollidableType classes.	WBox	Will Dunlop, Jakob Grzmil	deltaTime: 2, velY: 5	Y moves whilst X doesn't move.	Y moves whilst X doesn't move.	Pass
CollidableTest_testLessDamageUpdate	Tests if the lessdamage object updates in the y and x axis.	Collidable and CollidableType classes.	WBox	Will Dunlop, Jakob Grzmil	deltaTime: 2, velY: 5	Y moves whilst X doesn't move.	Y moves whilst X doesn't move.	Pass
CollidableTest_testLessTimeUpdate	Tests if the lesstime object updates in the y and x axis.	Collidable and CollidableType classes.	WBox	Will Dunlop, Jakob Grzmil	deltaTime: 2, velY: 5	Y moves whilst X doesn't move.	Y moves whilst X doesn't move.	Pass
CollidableTest_testHealUpdate	Tests if the heal object updates in the y and x axis.	Collidable and CollidableType classes.	WBox	Will Dunlop, Jakob Grzmil	deltaTime: 2, velY: 5	Y moves whilst X doesn't move.	Y moves whilst X doesn't move.	Pass
CollidableTest_testRockDamage	Tests if the rock collidable deals damage correctly.	Collidable, CollidableType and Boat classes.	WBox	Will Dunlop	A boat entity and a rock entity with their respective fields.	The boat has it's health reduced by 20.	Boat health reduced by 20.	Pass
CollidableTest_testBranchDamage	Tests if the branch collidable deals damage correctly.	Collidable, CollidableType and Boat classes.	WBox	Will Dunlop	A boat entity and a branch entity with their respective fields.	The boats health is reduced by 10.	The boats health is reduced by 10.	Pass
CollidableTest_testLeafDamage	Tests if the leaf collidable deals damage correctly.	Collidable, CollidableType and Boat classes.	WBox	Will Dunlop	A boat entity and a leaf entity with their respective fields.	The boats health is reduced by 5.	The boats health is reduced by 5	Pass
CollidableTest_testInvulnEffect	Tests if the invuln object applies it's effect properly.	Collidable, CollidableType and Boat classes.	WBox	Will Dunlop	A boat entity and an invuln entity with their respective fields.	The boat Buff value is equal to 0.	The boat Buff value is equal to 0.	Pass
CollidableTest_testSpeedUpEffect	Tests if the speedup object applies it's effect properly.	Collidable, CollidableType and Boat classes.	WBox	Will Dunlop	A boat entity and a speedup entity with their respective fields.	The boat speed is increased by 50.	The boat speed is increased by 50.	Pass
CollidableTest_testLessDamageEffect	Tests if the lessdamage object applies it's effect properly.	Collidable, CollidableType and Boat classes.	WBox	Will Dunlop	A boat entity and a lessdamage entity with their respective fields.	The boat buff value is equal to 0.5f.	The boat buff value is equal to 0.5f.	Pass
CollidableTest_testLessTime	Tests if the lesstime object applies it's effect properly.	Collidable, CollidableType and Boat classes.	WBox	Will Dunlop	A boat entity, a lesstime entity and the values 0,0.5 and 10 for times to be tested.	The time of the boat should be -0.5, 0 and 9.5 respectively.	The time of the boat was -0.5, 0 and 9.5 respectively.	Pass
CollidableTest_testHealEffect	Tests if the heal object applies it's effect properly.	Collidable, CollidableType and Boat classes.	WBox	Will Dunlop	A boat entity and a heal entity and their respective fields.	The boat health should increase by 25% of it's current value.	The boat health increased by 25% of it's current value.	Pass
ManualTest_explanationTest	A manual test to see if the explanation of the game mechanics provided is sufficient.	UR_UX, NFR_MOVEMENT_EXPLANATION, NFR_RULES_EXPLANATION	Bbox	Will Dunlop	Navigate to the instructions screen and read the instruction explanation.	Adequet explanation of the rules and controls.	Adequet explanation of the rules and controls.	Pass