

Test ID	Test name	Description	Method	Pass/Fail	Test type (expected/boundary/invalid)	Author
DragonBoatGame						
AU-IT-DragonBoatGame1	testMakeDragonBoatGame	Tests that a valid recreation of the DragonBoatGame object is produced from a JSON file	DragonBoatGame.makeDragonBoatGame(data, startGame)	Pass	Expected	Mayan
Boat						
AU-Boat1	testSteerLeftMovesLeft	Tests that the boat moves left when SteerLeft is called	boat.SteerLeft()	Pass	Expected	Mayan
AU-Boat2	testSteerLeftAtLeftBoundary	Tests that the boat keeps its x-position when at the left boundary and trying to move left	boat.SteerLeft()	Pass	Boundary	Mayan
AU-Boat3	testSteerRightMovesRight	Tests that the boat moves right when SteerRight is called	boat.SteerRight()	Pass	Expected	Mayan
AU-Boat4	testSteerRightAtRightBound	Tests that the boat keeps its x-position when at the right boundary and trying to move right	boat.SteerRight()	Pass	Boundary	Mayan
AU-Boat5	testMoveForwardMovesUp	Tests that the boat moves up when MoveForward is called	boat.MoveForward()	Pass	Expected	Mayan
AU-Boat6	testIncreaseSpeedIncreasesSpeed	Tests that the boat's speed increases when the method is called	boat.IncreaseSpeed()	Pass	Expected	Mayan
AU-Boat7	testIncreaseSpeedAtMaxSpeed	Tests that the boat's speed stays the same when at its max speed	boat.IncreaseSpeed()	Pass	Boundary	Mayan
AU-Boat8	testDecreaseSpeedDecreasesSpeed	Tests that the boat's speed decreases when the method is called	boat.DecreaseSpeed()	Pass	Expected	Mayan
AU-Boat9	testDecreaseSpeedAtZeroSpeed	Tests that the boat's speed doesn't drop below 0	boat.DecreaseSpeed()	Pass	Boundary	Mayan
AU-Boat10	testApplyDamageReducesDurability	Test that the boat's durability reduces when it takes damage	boat.ApplyDamage(obstacleDamage)	Pass	Expected	Mayan
AU-Boat11	testApplyDamageNoDivisionByZeroError	Test that applying damage does not cause a division by 0 error	boat.ApplyDamage(obstacleDamage)	Pass	Invalid	Mayan
AU-Boat12	testBoostAppliedCorrectly	Test that the correct boost is applied depending on parameter	boat.Boost(boostType)	Pass	Expected	Matthew
AU-Boat13	testRemoveBoostWhenBoosted	Test that when a boat is boosted the boost is removed successfully	boat.RemoveBoost()	Pass	Expected	Matthew
AU-Boat14	testRemoveBoostWhenNotBoosted	Test that when a boat is not boosted that trying to remove the boost causes no errors	boat.RemoveBoost()	Pass	Invalid	Matthew
AU-Boat15	testCheckIfInLaneWhileInLane	Test that when a boat is in the lane the method returns true	boat.CheckIfInLane()	Pass	Expected	Matthew
AU-Boat16	testCheckIfInLaneRightBoundaryLimit	Test that when a boat is at the right boundary but still in the lane the method returns true	boat.CheckIfInLane()	Pass	Boundary	Matthew
AU-Boat17	testCheckIfInLaneLeftBoundaryLimit	Test that when a boat is at the left boundary but still in the lane the method returns true	boat.CheckIfInLane()	Pass	Boundary	Matthew
AU-Boat18	testCheckIfInLaneOutsideRightBoundaryLimit	Test that when a boat is just beyond the right boundary the method returns false	boat.CheckIfInLane()	Pass	Boundary	Matthew
AU-Boat19	testCheckIfInLaneOutsideLeftBoundaryLimit	Test that when a boat is just below the left boundary limit the method returns false	boat.CheckIfInLane()	Pass	Boundary	Matthew
AU-Boat20	testUpdateFastestTimeUpdatesTime	Test that when the current fastest time is 0 the value will always increase when the method is called	boat.UpdateFastestTime()	Pass	Expected	Matthew
AU-Boat21	testUpdateFastestTimeInitialUpdate	Test that when the new time is faster than the previous fastest it updates	boat.UpdateFastestTime()	Pass	Expected	Matthew
AU-Boat22	testUpdateFastestTimeWithSlowerTime	Test that when the new time is slower than the previous fastest it doesn't update	boat.UpdateFastestTime()	Pass	Invalid	Matthew
AU-Boat23	testUpdateFastestTimeAccountsForPenalties	Test that when the new time is faster but not when combined with penalties that it doesn't update	boat.UpdateFastestTime()	Pass	Expected	Matthew
AU-Boat24	testUpdateFastestTimeIncludesPenalties	Test that when the new time is faster even with penalties it updates	boat.UpdateFastestTime()	Pass	Expected	Matthew
AU-Boat25	testReset	Test that when the method is called all the stats reset to the correct values	boat.Reset()	Pass	Expected	Matthew
Player						
AU-IT-Player1	testToJSON	Tests that the toJSON method runs with no errors and returns a string	player.toJSON()	Pass	Expected	Mayan
AU-IT-Player2	testToJSONAndMakePlayer	Tests that a valid recreation of the player is produced from converting it to JSON then recreating it from the JSON	player.toJSON() & Player.makePlayer(data, game, lane)	Fail	Expected	Mayan
Opponent						
AU-IT-Opponent1	testToJSON	Tests that the toJSON method runs with no errors and returns a string	opponent.toJSON()	Pass	Expected	Mayan
AU-IT-Opponent2	testToJSONAndMakeOpponent	Tests that a valid recreation of the opponent is produced from converting it to JSON then recreating it from the JSON	opponent.toJSON() & Opponent.makeOpponent(data, game, lane)	Fail	Expected	Mayan
Obstacle						
AU-UT-Obstacle1	testMove	Test that the obstacle moves the expected amount and direction	obstacle.Move(moveAmount)	Pass	Expected	Mayan
AU-Obstacle2	testRemove	Test that the obstacle can be successfully removed from the lane	obstacle.Remove()	Pass	Expected	Matthew
Goose						
AU-UT-Goose1	testChangeDirection	Tests that the goose changes direction	goose.ChangeDirection()	Pass	Expected	Mayan
AU-UT-Goose2	testMove	Tests that the goose moves	goose.move(moveVal, backgroundOffset)	Pass	Expected	Mayan
AU-IT-Goose3	testToJSON	Tests that the toJSON method runs with no errors and returns a string	goose.toJSON()	Pass	Expected	Mayan
AU-IT-Goose4	testToJSONAndMakeGoose	Tests that a valid recreation of the goose is produced from converting it to JSON then recreating it from the JSON	goose.toJSON() & Goose.makeGoose(data, texture, lane)	Pass	Expected	Mayan
Log						
AU-IT-Log1	testToJSON	Tests that the toJSON method runs with no errors and returns a string	log.toJSON()	Pass	Expected	Mayan
AU-IT-Log2	testToJSONAndMakeLog	Tests that a valid recreation of the log is produced from converting it to JSON then recreating it from the JSON	log.toJSON() & Log.makeLog(data, texture, lane)	Pass	Expected	Mayan
Boost						
AU-IT-Boost1	testToJSON	Tests that the toJSON method runs with no errors and returns a string	boost.toJSON()	Pass	Expected	Mayan
AU-IT-Boost2	testToJSONAndMakeBoost	Tests that a valid recreation of the boost is produced from converting it to JSON then recreating it from the JSON	boost.toJSON() & Boost.makeBoost(data, texture, lane)	Pass	Expected	Mayan
Lane						
AU-Lane1	testSpawnObstacleIncreasesObstacleCount	Tests that spawning an obstacle increases the lanes obstacle count	lane.SpawnObstacle(x, y, obstacleType)	Pass	Expected	Matthew
AU-Lane2	testSpawnObstacleCreatesGoose	Tests that when obstacleType == "Goose" an obstacle of class Goose is spawned	lane.SpawnObstacle(x, y, obstacleType)	Pass	Expected	Matthew
AU-Lane3	testSpawnObstacleCreatesLog	Tests that when obstacleType == "Log" an obstacle of class Log is spawned	lane.SpawnObstacle(x, y, obstacleType)	Pass	Expected	Matthew
AU-Lane4	testSpawnObstacleCreatesBoost	Tests that when obstacleType == "Boost" an obstacle of class Boost is spawned	lane.SpawnObstacle(x, y, obstacleType)	Pass	Expected	Matthew
AU-Lane5	testSpawnObstacleReachedObstacleLimit	Tests that when the obstacle limit has been reached no obstacle is spawned	lane.SpawnObstacle(x, y, obstacleType)	Pass	Boundary	Matthew
AU-IT-Lane6	testToJSON	Tests that the toJSON method runs with no errors and returns a string	lane.toJSON()	Pass	Expected	Mayan
AU-IT-Lane7	testToJSONAndMakeLane	Tests that a valid recreation of the lane is produced from converting it to JSON then recreating it from the JSON	lane.toJSON() & Lane.makeLane(data)	Pass	Expected	Mayan
ProgressBar						
AU-ProgressBar1	testReset	Tests that the method resets both timeSeconds and playerTime to 0	progressBar.StartTimer()	Pass	Expected	Matthew
AU-ProgressBar2	testIncrement	Tests that the method increments timeSeconds and updates playerTime if the race hasn't ended	progressBar.IncrementTimer(timePassed)	Pass	Expected	Matthew
AU-ProgressBar3	testAllFinished	Tests that the method returns true if all boats are passed the required y value	progressBar.allFinished(finishY)	Pass	Expected	Matthew
AU-ProgressBar4	testPlayerNotFinished	Tests that the method returns false if all boats bar the player have passed the required y value	progressBar.allFinished(finishY)	Pass	Expected	Matthew
AU-ProgressBar5	testOpponentsNotFinished	Tests that the method returns false if only the player has passed the required y value	progressBar.allFinished(finishY)	Pass	Expected	Matthew
AU-ProgressBar6	testAllNotFinished	Tests that the method returns false if no boat has passed the required y value	progressBar.allFinished(finishY)	Pass	Expected	Matthew
AU-ProgressBar7	testAllFinishedProgress	Tests that the method correctly returns an array full of 1.0 when all boats have passed the y value	progressBar.getProgress(finishY)	Pass	Expected	Matthew
AU-ProgressBar8	testOpponentsFinishedProgress	Tests that the player is the only non-1.0 value when only the player hasn't passed the y value, and that the player value is the correct decimal representation of the progress	progressBar.getProgress(finishY)	Pass	Expected	Matthew
AU-ProgressBar9	testPlayerFinishedProgress	Tests that the player is the only 1.0 value when only the player has passed the y value, and that all the other values have the correct decimal representation of the progress	progressBar.getProgress(finishY)	Pass	Expected	Matthew
AU-ProgressBar10	testNoFinishedProgress	Tests that when no boats have passed the y value all values are accurate decimal representations of the progress	progressBar.getProgress(finishY)	Pass	Expected	Matthew
AU-ProgressBar11	testToJSON	Tests that the toJSON method runs with no errors and returns a string	progressBar.toJSON()	Pass	Expected	Mayan
AU-ProgressBar12	testToJSONAndMakeProgressBar	Tests that a valid recreation of the progress bar is produced from converting it to JSON then recreating it from the JSON	progressBar.toJSON() & ProgressBar.makeProgressBar(data, player, opponents)	Pass	Expected	Mayan
IO						

Test ID	Test name	Description	Method	Pass/Fail	Test type (expected/boundary/invalid)	Author
AU-IO1	testReadFileReturnsFilesContent	Tests that the readFile method returns a string with the files content	IO.readFile(filePath)	Pass	Expected	Mayan
AU-IO2	testReadFileDoesntExist	Tests that when the readFile method gets an invalid filepath it returns null	IO.readFile(filePath)	Pass	Invalid	Mayan
AU-IO3	testWriteFileWritesFile	Tests that the writeFile method successfully writes the given content to a file	IO.writeFile(filePath, data)	Pass	Expected	Mayan
AU-IO4	testFromJSONCreatesObject	Tests that the fromJSON method succfully converts the JSON into usable data	IO.fromJSON(dataType, jsonData)	Pass	Expected	Mayan
AU-IO5	testToJSON	Test that the toJSON method correctly converts the given data to JSON	IO.toJSON(data)	Pass	Expected	Mayan
TestID Prefix Meanings:						
AU - Automated Test						
IT - Integration Test						
UT - Unit Test						