

Test Scenario Number:	004	Tested By:	Ryan Bomalaski
Sprint Number:	1	Application:	main.py
Tracker ID:	ST-004	Time Estimation:	30 Minutes
Module:	N/A	Type:	Stepwise
Test Scenario and Requirements Description: Tester will run test script test_004.sh to test Scenario 4. Prerequisites: <ul style="list-style-type: none"> User has Collision Avoidance folder User has SQLite3 Installed 			
Scenario Title: Run Simulator for 75 Steps with resolution of 10 steps per second to simulate 7.5 seconds of flight time. Scenario Procedure: Using the provided scripts, the user will import the test airplanes to the python algorithm. Then the user will run the simulator for 75 steps.			
Scenario Steps:		Validation:	
Create Airplane Test Database: <ol style="list-style-type: none"> Open New Terminal Navigate to .../collision_avoidance/test_scripts Run command: <ol style="list-style-type: none"> ./test_004.sh 		SQLite will initialize with test attributes. The terminal will open the python terminal (Denoted with the ">>>").* * - Note: If this is the first set up of the table, two errors will appear.	
Create Simulator object and populate with Airplanes: <ol style="list-style-type: none"> Create a new simulator object with step count of 75 by typing the following command: <ol style="list-style-type: none"> sim = Simulator(75,10) Populate the simulator with aircraft by running: <ol style="list-style-type: none"> sim.create_airplanes() Confirm that two airplanes were created by running: <ol style="list-style-type: none"> sim.airplanes 		A list of two airplane objects with the address in memory will appear.	
Run Simulator: <ol style="list-style-type: none"> In python environment, run the following command: <ol style="list-style-type: none"> sim.run_sim() When the simulator is complete, run: <ol style="list-style-type: none"> exit() 		The simulator will step through 75 steps, giving outputs for both airplanes. Upon exit, the user will be back at the linux terminal.	