

Team 000000000111
Airport Map
Test Plan

Revision History

Authors	Description of Change	Sections	Rev	Date
Lola	Added RIDs to Test Def. updated table of contents	2, 4	1	4/12/18
Lola	Added more info and RIDs to test def. re-organized table of contents	2, 4	2	4/12/18

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1 Team Description

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2 Test Description

<Write something describing what information will follow>

Tests will be performed to evaluate the functionality of each written requirement as defined below. The permissions of both the FAA user type and the Airline user type will be tested according to the functionality that each user can do within the program.

2.1 Test Platform / Hardware / Environment

<Describe what equipment will be used to conduct the tests. Describe what software environment will be used to conduct the test. If there are multiple configurations, describe what they will be. In order to make the test repeatable, it is necessary to describe all aspects of the environment, but let's not go overboard with this.>

The platform used to conduct the tests will be a desktop computer with standard hardware (monitor, keyboard, mouse). The user will input any necessary data with a keyboard or mouse if applicable.

The software environment conducting the test will be a standard desktop operating system (Windows, Mac, Linux) with command-line access, since the Airport Map program is command-line based.

2.2 Test Definitions

2.2.1 Test 1: Add Vertex

Requirements: RID-0001, RID-0009, RID-0010, RID-0011

Description: Test that the form created by the system works and correctly saves the user inputs into the correct variables. The system will also check if the vertex is already in existence.

2.2.2 Test 2: Add Edge

Requirements: RID-0002, RID-0012, RID-0013

Description: Test that the system correctly shows a list of all the current vertices and the user can select any two of these vertices to create an edge. The system will also check if the edge is already in existence in the database.

2.2.3 Test 3: Generate Path

Requirements: RID-0008, RID-0026, RID-0027, RID-0028, RID-0029

Description: Test that the map has at least one vertex-edge combination (two vertices and one edge between these vertices). Test that an accurate flight path is calculated by system for an Airline-selected vertex and displayed to Airline user.

2.2.4 Test 4: Save Path

Requirements: RID-0009, RID-0030, RID-0031, RID-0032, RID-0033, RID-0034

Description: Test that the Airline user can save a path in the system, and that both users can retrieve path data successfully.

2.2.5 Test 5: Delete Vertex

Requirements: RID-0003, RID-0014, RID-0015, RID-0016

Description: Test that at least one flight path currently exists. Test that the vertex is deleted if it exists and that relevant paths are deleted. Test that Airline notification works and conveys the change made to the map.

2.2.6 Test 6: Delete Edge

Requirements: RID-0004, RID-0017, RID-0018, RID-0019, RID-0020

Description: Test that at least one flight path currently exists. Test that the edge is deleted if it exists and that relevant paths are deleted. Test that Airline notification works and conveys the change made to the map.

2.2.7 Test 7: Disable Vertex

Requirements: RID-0005, RID-0021, RID-0022, RID-0020

Description: Test that at least one flight path currently exists. Test that the vertex is disabled and relevant paths are deleted. Test that Airline notification works and conveys the change made to the map.

2.2.8 Test 8: Disable Edge

Requirements: RID-0006, RID-0023, RID-0024, RID-0020, RID-0019

Description: Test that at least one flight path currently exists. Test that the edge is disabled and relevant paths are deleted. Test that Airline notification works and conveys the change made to the map.

2.2.9 Test 9: Delete Path

Requirements: RID-0007, RID-0025

Description: Test that at least one flight path currently exists. Test that saved paths can be browsed through and selected by the FAA user. Test that a selected saved path is deleted from the system successfully. Test that Airline notification works.

Test Data Table

2.3 Verification Cross Reference Matrix

Requirement Identifier	Where Tested
RID-0001	
RID-0002	
RID-0003	
RID-0004	
RID-0005	
RID-0006	
RID-0007	
RID-0008	
RID-0009	
RID-0010	
RID-0011	
RID-0012	
RID-0013	
RID-0014	
RID-0015	
RID-0016	
RID-0017	
RID-0018	
RID-0019	
RID-0020	
RID-0021	
RID-0022	
RID-0023	
RID-0024	
RID-0025	
RID-0026	

RID-0027	
RID-0028	
RID-0029	
RID-0030	
RID-0031	
RID-0032	
RID-0033	
RID-0034	
RID-0035	
RID-0036	