## **BLACK BOX TEST PLAN**

These are the black-box test cases which will be utilized to test the functionality of the TransportationManager application. For these black-box test cases, we will be using two test input files, input-1.txt and input-2.txt, which contain the following text:

• input-1.txt

• input-2.txt

With more time, a fully functional GUI black box test would be conducted, but limited time has forced me to create a faux-black-box test as a white-box test case within the test/manager package.

Test ID	Description	Expected Results	Actual Results
readingInvalidFile (DT - trying to read a non-existent file)	Preconditions:  Transportati onManagerG UI has been loaded successfully missing-input .txt does not exist  Steps:  Click "Load Highway Information"  Enter "missing-inp ut.txt" and click Open Guit	Pop-Up displays:  " <path file="" for="" os="" to="" your="">"/missing-input.txt (The system cannot find the file specified)</path>	Pop-Up displays:  " <path file="" for="" os="" to="" your="">"/missing-input.txt (The system cannot find the file specified)</path>

## Preconditions:

- Transportati onManagerG
   UI loaded successfully
- input-1.txt exists

## Steps:

- Click "Load Highway Information"
- 2. Enter
  "input-1.txt"
  and click
  Open
- Click"MinimizeCost"
- 4. Quit

There is no error reported.

Output text field contains:

"Heap[Highway[city1=1, city2=2, cost=7.0, asphalt=159.0],

city2=2, cost=12.0, asphalt=159.0],

Highway[city1=3,

Highway[city1=1, city2=0, cost=14.0, asphalt=415.0]]

List[Highway[city1=1, city2=0, cost=14.0, asphalt=415.0], Highway[city1=1, city2=2, cost=7.0, asphalt=159.0], Highway[city1=3, city2=2, cost=12.0,

asphalt=159.0]

AdjacencyList[ City 0: ->
Highway[city1=1,
city2=0, cost=14.0,
asphalt=415.0]
City 1: ->
Highway[city1=1,
city2=0, cost=14.0,
asphalt=415.0] ->
Highway[city1=1,

No error reported.

Output text field contains:

"Heap[
Highway[city1=1,
city2=2, cost=7.0,
asphalt=159.0],
Highway[city1=3,
city2=2, cost=12.0,
asphalt=212.0],
Highway[city1=1,
city2=0, cost=14.0,
asphalt=415.0]
]

List[Highway[city1=1, city2=0, cost=14.0, asphalt=415.0], Highway[city1=1, city2=2, cost=7.0, asphalt=159.0], Highway[city1=3, city2=2, cost=12.0, asphalt=212.0]

AdjacencyList[
City 0: ->
Highway[city1=1,
city2=0, cost=14.0,
asphalt=415.0]
City 1: ->
Highway[city1=1,
city2=0, cost=14.0,
asphalt=415.0] ->

Highway[city1=1,

			1	
			city2=2, cost=7.0,	city2=2, cost=7.0,
			asphalt=159.0]	asphalt=159.0]
			City 2: ->	City 2: ->
			Highway[city1=1,	Highway[city1=1,
			city2=2, cost=7.0,	city2=2, cost=7.0,
			asphalt=159.0] ->	asphalt=159.0] ->
			Highway[city1=3,	Highway[city1=3,
			city2=2, cost=12.0,	city2=2, cost=12.0,
			asphalt=212.0]	asphalt=212.0]
			City 3: ->	City 3: ->
			Highway[city1=3,	Highway[city1=3,
			city2=2, cost=12.0,	city2=2, cost=12.0,
			asphalt=212.0]	asphalt=212.0]
			]"	]"
duplicateHighways(	Precor	nditions:	There is no error	There is no error
Minimizing cost on	110001	Transportati	reported.	reported.
a set of highways		onManagerG	Toportea.	Teported.
which only contains		UI has been	Output text field	Output field contains: "
duplicates )		loaded	contains: "	Heap[
a spiroutes ,		successfully	Heap[Highway[city1=0,	Highway[city1=0,
		input-2.txt	city2=1, cost=7.0,	city2=1, cost=7.0,
		exists	asphalt=159.0],Highway[	asphalt=159.0],
	Steps:		city1=0, city2=1,	Highway[city1=0,
	1.	Click "Load	cost=7.0, asphalt=159.0 ]	city2=1, cost=7.0,
		Highway	,,	asphalt=159.0]
		Information"	List[Highway[city1=0,	
	2.	Enter	city2=1, cost=7.0,	-
		"input-2.txt"	asphalt=159.0]]	List[
		and click		Highway[city1=0,
		Open	AdjacencyList[City 0 ->	city2=1, cost=7.0,
	3.	Click	Highway[city1=0,	asphalt=159.0]
		"Minimize	city2=1, cost=7.0,	
		Asphalt"	asphalt=159.0] ->	-
		·		

	1	
4. Quit	Highway[city1=0,	AdjacencyList[
	city2=1, cost=7.0,	City 0: ->
	asphalt=159.0]	Highway[city1=0,
	City 1 ->	city2=1, cost=7.0,
	Highway[city1=0,	asphalt=159.0] ->
	city2=1, cost=7.0,	Highway[city1=0,
	asphalt=159.0] ->	city2=1, cost=7.0,
	Highway[city1=0,	asphalt=159.0]
	city2=1, cost=7.0,	City 1: ->
	asphalt=159.0]]"	Highway[city1=0,
		city2=1, cost=7.0,
		asphalt=159.0] ->
		Highway[city1=0,
		city2=1, cost=7.0,
		asphalt=159.0]
		]