

# System Test PlanTest Data:

## landmark\_data\_valid.txt

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LANDMARK_ID,DESCRIPTION,TYPE
L01,Park Entrance,Location
L02,Restroom 1,Restroom
L03,Visitor Center,Building
L04,Waste Station 1,Pet Waste Station
L05,Waste Station 2,Pet Waste Station
L06,Open Meadow,Field
L07,Waterfall,Body of Water
L08,Lake,Body of Water
L09,Rock Formation 1,Rock Formation
L10,Overlook 1,Overlook
L11,Restroom 2,Restroom
L12,Campsite 1,Campsite
L13,Showers 1,Showers
L14,Overlook 2,Overlook
L15,Pond,Body of Water
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**trail\_data\_valid.txt**

LANDMARK\_ID, LANDMARK\_ID, DISTANCE

L01, L02, 200

L01, L03, 500

L01, L04, 1800

L02, L05, 2000

L03, L06, 1100

L04, L07, 4200

L05, L08, 3500

L07, L09, 300

L07, L10, 1200

L10, L11, 200

L12, L13, 300

L12, L14, 300

Test ID	Description	Expected Results	Actual Results
<b>Test #1</b>  <b>testID:</b> <b>testLoadValidFiles</b>  <b>Strategy:</b>  <b>Equivalence class - loading landmarks from a valid file</b>	<b>Preconditions:</b> <ul style="list-style-type: none"> <li>• ParkManager has been loaded successfully.</li> <li>• The file input/landmark_data_valid.txt exists.</li> <li>• The file input/trail_data_valid.txt exists.</li> </ul> <b>Steps:</b> <ol style="list-style-type: none"> <li>1. Enter input/landmark_data_valid.txt into the console when prompted</li> <li>2. Enter input/trail_data_valid.txt into the console when prompted</li> <li>3. <i>Check results</i></li> </ol>	UI menu loads with the options displayed on the console:  TrailManager ver 1.0 [1] List Potential Locations for First Aid Stations [2] View Distances to All Reachable Landmarks [Q] Quit	UI menu loads with the options displayed on the console:  TrailManager ver 1.0 [1] List Potential Locations for First Aid Stations [2] View Distances to All Reachable Landmarks [Q] Quit

<p><b>Test #2</b></p> <p><b>testID:</b> <b>testListPotentialFirstAidStationsThreeIntersecting</b></p> <p><b>Strategy:</b></p> <p><b>Edge Case - lists landmarks with the max number of intersecting trails</b></p>	<p><b>Preconditions:</b></p> <ul style="list-style-type: none"> <li>• ParkManager has been loaded successfully with the files <code>landmark_data_valid.txt</code> and <code>trail_data_valid.txt</code></li> <li>• UI menu is displayed to console</li> </ul> <p><b>Steps:</b></p> <ol style="list-style-type: none"> <li>1. Enter <b>1</b> (view proposed landmarks for first aid station) into the console</li> <li>2. Enter <b>3</b> when prompted for number of intersecting trails</li> <li>3. <i>Check results</i></li> </ol>	<p>The program outputs the following:</p> <pre>Proposed Locations for First Aid Stations {     Park Entrance (L01) - 3 intersecting trails Waterfall (L07) - 3 intersecting trails }</pre>	<p>The program outputs the following:</p> <pre>Proposed Locations for First Aid Stations {     Park Entrance (L01) - 3 intersecting trails Waterfall (L07) - 3 intersecting trails }</pre>
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<p><b>Test #3</b></p> <p><b>testID:</b> <b>testListPotentialFirstAidStationsOverflow</b></p> <p><b>Strategy:</b></p> <p><b>Exception/Invalid Input</b> <b>- trying to find a landmark with more intersecting trails than the largest available</b></p>	<p><b>Preconditions:</b></p> <ul style="list-style-type: none"> <li>• ParkManager has been loaded successfully with the files <code>landmark_data_valid.txt</code> and <code>trail_data_valid.txt</code></li> <li>• UI menu is displayed to console</li> </ul> <p><b>Steps:</b></p> <ol style="list-style-type: none"> <li>1. Enter <b>1</b> (view proposed landmarks for first aid station) into the console</li> <li>2. Click "View Proposed First Aid Stations"</li> <li>3. Enter <b>4</b> when prompted for number of intersecting trails</li> <li>4. Click submit</li> </ol>	<p>The program outputs the following:</p> <p>No landmarks have at least 4 intersecting trails.</p>	<p>The program outputs the following:</p> <p>No landmarks have at least 4 intersecting trails.</p>
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<p><b>Test #4</b></p> <p><b>testID:</b> <b>testViewDistancesToReachableLandmarksValid</b></p> <p><b>Strategy:</b></p> <p><b>Equivalence Class - List landmarks reachable from the current landmark and their distances</b></p>	<p><b>Preconditions:</b></p> <ul style="list-style-type: none"> <li>• ParkManager has been loaded successfully with the files <code>landmark_data_valid.txt</code> and <code>trail_data_valid.txt</code></li> <li>• UI menu is displayed to console</li> </ul> <p><b>Steps:</b></p> <ol style="list-style-type: none"> <li>1. Enter <b>2</b> (View distances to all reachable landmarks)</li> <li>2. Enter <b>L03</b> when prompted</li> <li>3. <i>Check results</i></li> </ol>	<p>The program displays the following:</p> <pre>Landmarks Reachable from Visitor Center (L03) {     500 feet to Park Entrance (L01)     700 feet to Entrance Restrooms (L02)     1100 feet to Meadow (L06)     2300 feet to Waste Station 1 (L04)     2700 feet to Waste Station 2 (L05)     6200 feet (1.17 miles) to Lake (L08)     6500 feet (1.23 miles) to Waterfall (L07)     6800 feet (1.28 miles)to Rock Formation 1 (L09)     7700 feet (1.46 miles) to Overlook 1 (L10)     7900 feet (1.50 miles) to Restroom 2 (L11) }</pre>	<p>The program displays the following:</p> <pre>Landmarks Reachable from Visitor Center (L03) {     500 feet to Park Entrance (L01)     700 feet to Entrance Restrooms (L02)     1100 feet to Meadow (L06)     2300 feet to Waste Station 1 (L04)     2700 feet to Waste Station 2 (L05)     6200 feet (1.17 miles) to Lake (L08)     6500 feet (1.23 miles) to Waterfall (L07)     6800 feet (1.28 miles)to Rock Formation 1 (L09)     7700 feet (1.46 miles) to Overlook 1 (L10)     7900 feet (1.50 miles) to Restroom 2 (L11) }</pre>
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<p><b>Test #5</b></p> <p><b>testID:</b></p> <p><b>testViewDistancesToReachableLandmarkNoTrails</b></p> <p><b>Strategy:</b></p> <p><b>Exception/Invalid Input</b> - enter a landmark that does not connect to other landmarks</p>	<p><b>Preconditions:</b></p> <ul style="list-style-type: none"> <li>• ParkManager has been loaded successfully with the files <code>landmark_data_valid.txt</code> and <code>trail_data_valid.txt</code></li> <li>• UI menu is displayed to console</li> </ul> <p><b>Steps:</b></p> <ol style="list-style-type: none"> <li>4. Enter <b>2</b> (View distances to all reachable landmarks)</li> <li>5. Enter <b>L15</b> when prompted</li> <li>6. <i>Check results</i></li> </ol>	<p>Program displays the following:</p> <p>No landmarks are reachable from Pond (L15)</p>	<p>Program displays the following:</p> <p>No landmarks are reachable from Pond (L15)</p>
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