# Test Description

**Test Name or ID**: Integration test

**Test Type**: Integration , white

**Description**: By this integration test, you can see whether all functions work together correctly.

**Setup: Visual Studio Native Unit Test**

**Test Function**: Integration test to check all functions work correctly together.

**Test Scenarios:**

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| --- | --- | --- | --- | --- | --- |
| ID | Description | Test Data | Expected Result | Actual Result | Pass/Fail |
| IT001 | Test route closest distance on route A  With valid shipment | Truck route: getBlueRoute(), Volume capacity: 50, Weight capacity: 2000; Shipment: Box size: 3, Weight: 500, Dest: Point 0 | Point index: 0, Distance: 0.0 | Point index: 0, Distance: 0.0 | Pass |
| IT002 | Test route closest distance on route B with valid shipment | Truck route: getBlueRoute(), Volume capacity: 50, Weight capacity: 2000; Shipment: Box size: 3, Weight: 500, Dest: Point 7 | Point index: 7, Distance: 0.0 | Point index: 7, Distance: 0.0 | Pass |
| IT003 | Test route closest distance on route C with valid shipment | Truck route: getBlueRoute(), Volume capacity: 50, Weight capacity: 2000; Shipment: Box size: 3, Weight: 500, Dest: Point 15 | Point index: 15, Distance: 0.0 | Point index: 15, Distance: 0.0 | Pass |
| IT004 | Test route closest distance off route A | Truck route: getBlueRoute(), Volume capacity: 50, Weight capacity: 2000; Shipment: Box size: 3, Weight: 500, Dest: Point 0 with col +4 | Point index: 0, Distance: 4.0 | Point index: 0, Distance: 4.0 | Pass |
| IT005 | Test route closest distance off route B | Truck route: getBlueRoute(), Volume capacity: 50, Weight capacity: 2000; Shipment: Box size: 3, Weight: 500, Dest: Point 7 with row +4 | Point index: 7, Distance: 4.0 | Point index: 7, Distance: 4.0 | |  | | --- | | Pass |  |  | | --- | |  | |
| IT006 | Test route closest distance off route C | Truck route: getBlueRoute(), Volume capacity: 50, Weight capacity: 2000; Shipment: Box size: 3, Weight: 500, Dest: Point 15 with col +4 | Point index: 15, Distance: 4.0 | Point index: 15, Distance: 4.0 | |  | | --- | | Pass |  |  | | --- | |  | |
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**Bugs Found**:

None