**INTEGRATION TESTING**

Number of Functions

Init.h => init() [1]

Truck.h => AssignTruck() [2]

calculateUtilizationScore() [3]

Shipment.h => read() [4]

validate() [5]

utils.h => getAllTruckPaths() [6]

getBestRoute() [7]

containsDestination() [8]

printRoute() [9]

isBuilding() [10]

**AssignTruck function makes use of all the 5 functions in utils.h and function number 3.**

**Out of the rest function read() will not be tested because it just reads the input as it is from the input buffer.**

**Therefore, only the remaining functions will be tested for Integration Tests.**

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| Integration  Tests | Description | Test Data | Expected Result |
| Test 1 | Tests with all valid variables and package destination closest to green truck | init()  struct Shipment package = {10, 0.5, {7, 24}} | 4 |
| Test 2 | Tests with all valid variables and package destination closest to blue truck | Init()  struct Shipment Package = {10, 0.5, {11,11}} | 2 |
| Test 3 | Tests with all valid variables and package destination closest to yellow truck | Init()  struct Shipment Package = {10, 0.5, {14,3}} | 8 |
| Test 4 | Tests with invalid package weight and valid destination closest to yellow truck | Init()  struct Shipment Package = {2000, 0.5, {14,3}} | -1 |
| Test 5 | Tests with invalid package volume and valid destination closest to yellow truck | Init()  struct Shipment Package = {400, 0.42, {14,3}} | -1 |
| Test 6 | Tests with invalid package destination (not inside building), but destination closet to yellow truck | Init()  struct Shipment Package = {400, 0.5, {20,0}} | -1 |