

Acceptance Test

The acceptance tests will follow the same testing style as the integration tests but will specifically target and test for all the business requirements.

Acceptance Test #	Business Req # Focused	Description	Test Data	Expected Result
T01	R001	Check if the system correctly assigns a package to a truck based on size, weight, and destination.	Package with weight: 500 kg, size: 20 cubic meter, destination: 5C.	Package is assigned to the truck that will travel closest to 5C and has enough space and weight capacity. The truck's weight and volume are updated accordingly.
T02	R001	Test if the system correctly handles the situation when a truck is full.	Package with weight: 500 kg, size: 20 cubic meter, to be assigned to a truck that is already holding 990 kg and 30 cubic meters.	The system rejects this package for the current truck and attempts to assign it to the next closest truck with available space and weight capacity.
T03	R002	Check if the system calculates the shortest path correctly when the destination is on the truck's route.	Package with destination: 7F.	The system calculates that the shortest path is the current route of the truck.
T04	R002	Check if the system calculates the shortest path correctly when the destination requires a diversion from the truck's route.	Package with destination: 8P.	The system calculates the shortest path around buildings using the A* algorithm.
T05	R003	Check if the system handles unreachable destinations correctly.	Package with destination: 25Z (outside the map).	The system correctly identifies that the destination is outside the map area and handles it appropriately.