# Test Description

**Test Name or ID**: Blackbox - shortestPath

**Test Type:** Black box

**Description:** This function calculates the shortest points between 2 points, on provided map. From the offices where the trucks are departure from, and to the destination “Point”, returns struct “Route”, building is not a valid point on return. This function is to find the shortest path/ possibility on delivery.

**Setup:** Make sure the Map is available, starting point & destination are well defined.

**Test Function**: struct Route shortestPath(const struct Map\* map, const struct Point start, const struct Point dest)

Description: This function receives 3 parameters, which are map in use, starting point & destination point.

**Test Scenarios:**

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| Description | Test Data | Expected Result | Actual Result | Pass/Fail |
| Positive result with available map, starting point and destination point | Params  Map \*map = &routeMap startpoint = { 0,0 }; despoint = { 8, 25} | GREEN LINE, 7T, 7U, 7V, 7W, 7X, 7Y, 8Y | GREEN LINE, 7T, 7U, 7V, 7W, 7X, 7Y, 8Y | pass |
| Positive result with available map, starting point and destination out of grid point | Params  Map \*map = &routeMap startpoint = { 0,0 }; despoint = { 8, 30} | Error | Error | pass |
| Positive result with available map, starting point out of grid and destination | Params  Map \*map = &routeMap startpoint = { -1,0 }; despoint = { 8, 25} | Error | Error | pass |
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**Bugs Found**: