# Function Description

**Function Name:** sortByLimitingFactor

**Parameter List:**

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| --- | --- | --- |
| Parameter Name | Type | Description |
| dists | Double array | An array of points, that represent points on the Map |
| org | struct Dispatch\* | A pointer to the Dispatch Struct which contains other structs, struct Map and struct Fleet. Struct Map holds information of the Map and routes while struct Fleet holds the struct Trucks . |
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**Returns:** It is a void function returning nothing. However, it modifies the ‘dists’ parameter and modifies it so that it is sorted into descending order based on the limiting factor of the trucks in Dispatch struct.

**Description:** The function loops through the rows of the ‘dists’ array in reverse order, and using the references stored in the ‘dists’ array to retrieve the current fleet of trucks from the ‘org’ struct. Each trucks’ limiting factor is obtained using the ‘getSpaceRemaining’ function, which returns the remaining space in the truck. If the distance values of the rows in the ‘dists’ is eqal but the limiting factor of the first truck is smaller than the limiting factor of the second truck , the function swaps the elements of the ‘dists’ array to move the row with the smaller limiting factor towards the beginning of the array.