# Function Description

**Function Name**: int checkTruckIsEmpty(const double weight, int volume, struct TruckDetail truck);

**Parameter List**:

|  |  |  |
| --- | --- | --- |
| Parameter Name | Type | Description |
| weight | const double | represents the weight of an item |
| volume | int | represents the volume of an item |
| truck | Struct TruckDetail | represents the remaining volume capacity or weight left in a truck and its route. |
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**Return: int**

**Description: The purpose of this function is to find a truck that is big enough to hold the shipment.**

**A truck is full when it hits either its maximum weight or maximum volume – whichever is reached first. For example, if a truck already has 900 kilograms in it but only has 10 cubic meters of boxes.**

**then the limiting factor must be taken as the weight. If another truck has 30 cubic meters of boxes**

**but only 200 kilograms of cargo, then you must assume that it is limited in space rather than weight.**

**When you compare two trucks to see which one has the most space remaining, we should look at the limiting factor for each truck as a percentage and compare the percentages.**

**If the limiting factor is greater than the volume or weight left for the truck, the function will return 1; otherwise, it will return 0. Additionally, if it returns 1, the function will subtract the weight from weightLeft and decrease the value of volumeLeft of the truck.**