

The `truckTour` function is designed to solve a common problem in computer science known as the "Circular Tour" problem. This problem typically involves finding the starting point of a circular route where you can travel through a series of petrol pumps and come back to the starting point without running out of petrol.

Here's a step-by-step explanation of how this function works:

1. Two variables are initialized:
 - `petrol`: This variable is used to keep track of the current amount of petrol available as the truck travels along the circular route.
 - `index`: This variable is used to keep track of the index of the petrol pump from which the truck starts its journey.
2. The function iterates through the `petrolpumps` list using a `for` loop. The `petrolpumps` list is a list of lists, where each inner list has two integers:
 - The first integer represents the amount of petrol available at that petrol pump.
 - The second integer represents the distance to the next petrol pump.
3. Inside the loop:
 - `petrol` is increased by the amount of petrol available at the current petrol pump (`petrolpumps.get(i).get(0)`). This represents the petrol added when arriving at the current pump.
 - `petrol` is then decreased by the distance to the next petrol pump (`petrolpumps.get(i).get(1)`). This represents the petrol consumed to travel to the next pump.
 - If, at any point, `petrol` becomes negative, it means the truck can't reach the next pump without running out of petrol. In this case, `petrol` is reset to 0, and the `index` is set to `i + 1`. This effectively means that the starting point should be moved to the next petrol pump (`i + 1`) because it wasn't possible to start from the current one.
4. The loop continues until all petrol pumps have been checked.
5. The function returns the `index`, which represents the starting point from which the truck can complete the circular tour without running out of petrol.

The key idea here is to maintain the current petrol level and move the starting point to the next petrol pump whenever the truck can't reach the next one. This ensures that the function finds the correct starting point to complete the circular tour.