A company analyzes the profitability of their fulfillment centers, which must deal both with customer product income and transportation cost for moving the different items to destinations.

According to the company, the average revenue per customer varies according to the different location of the centers, while transportation cost is fixed to $4.70 per kilogram. The company also states that the business must generate an average revenue of $36000 per center to remain profitable.

Develop a program in C/C++ that uses structures and classes to assess the company's profitability.

First, use a structure to define the company's payload for a given center, including fields for the number of customers, the average price per item, and average weight per item (kg).

Then, use a class to evaluate the economics of an arbitrary number of centers, using fields for the cost per kg transported ($/kg) and the target revenue per center ($). Use methods to calculate the total number of customers served, the total amount of weight to be transported (kg) and the total revenue ($) across all centers. Output these three values, the average revenue, and a statement indicating if the company is profitable or not ("Company is profitable" or "Company is not profitable")

Your program should take user input for the number of centers, the number of customers carried on each center, the average item price, and the average item weight (kg) carried on each center.  Use printf and scanf functions for this.

Data from five centers are shown below. You can use this data as an example, but keep in mind your program should be able to accept data from any number of centers. Assume that each customer purchases only one item.

| Center | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Customers | 2500 | 3500 | 4300 | 1200 | 5600 |
| Average item price (kg) | 22.6 | 35.1 | 45.5 | 100.5 | 112.5 |
| Average item weight(kg) | 5.5 | 10.0 | 14.2 | 7.6 | 5.9 |

**A sample of your output should look like:**

```
Input number of centers:
5
Input customer data for all centers:
2500
3500
4300
1200
5600
Input item average price data for all centers:
22.6
35.1
45.5
100.5
112.5
Input item average weight data for all centers:
5.5
10.0
14.2
7.6
5.9
Total customers: 17100
Total weight:
151970 kg Total
revenue: $411341
Average revenue: $82268
Company is profitable
```