GREEDY ALGORITHMS ASSIGNMENT

“A cargo company has been contracted to carry goods from a warehouse to another one on a lorry with a load capacity of 4 Tm. The company will be paid 10€ for each object transported, regardless of its weight. As there are goods with very different weights, you are asked to provide a greedy algorithm to choose the goods to be carried so that the money paid will be maximum. This algorithm must ask the user for the weights of the goods and after executing should show the weights of the chosen goods and the amount of the bill for the transport service.”

GROUP MEMBERS:

Surname1 Surname2, Name ID number (first student)

Surname1 Surname2, Name ID number (second student)

Surname1 Surname2, Name ID number (third student)

- Rough description of the main ideas of the algorithm to solve this problem as it would be explained to a class mate that don´t know what is a greedy way of solving problems
- Formal description of the greedy algorithm that solves the problem, so previously identifying the five key elements we have been working with in class.
    - Candidates: …
    - Ordination: …
    - Feasibility: …
    - Selection:* (if required)
    - Ending condition: …
- Translation of the previous elements into pseudocode and, report of the computational cost of it.
- Implementation of that pseudocode into C programming language according to the template which was written in first lab class.

All the previous has to be typewritten in a memory file in pdf format. In addition you are expected to provide:

- C source file
- Executable file
- A plain text file including some representative examples to work with in order to show the proper working of the solution provided by the group.