Problem Statement

Savy is a real spoiled child. His mother is concerned about his bad behavior. So to incentivize his good behavior towards others his mother gives him an offer. On any day Savy can do any of the following

i. Buy some presents from the market to gift his friends.
ii. Ask his mom to give him money proportional to the **Number of** presents given by him to his friends.
iii. Do nothing.

Prices of the presents keep on fluctuating regularly and it cost on each day is given in an array,

Now Savy is very clever he wants to maximize the money given by his mother to him. Help him.

For example, if the given array is {the maximum profit can earned by buying on day 0, selling on day 3. Again buy on day 4 and sell on day 6. If the given array of prices is sorted in decreasing order, then profit cannot be earned at all.

Input:
First line contains integer N (size of array)
Next line contains N integers corresponding to a_i.

Ouput:
Output M the number of pairs of the days he will buy gifts for his friends and then days he asks his mother to give the proportional monetary reward.
Next M lines contain a_i , a_j where he buys on a_i , and asks for money on a_j .

Constraints:

N <= 10^5

Example
7
100 180 260 310 40 535 695

Output:

2
1 4
5 7