

Practice problems aimed to improve your coding skills.

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# Stronger together

LAB-PRAC-08 ARR-STR

Stronger	Together	[10 marks]	

#### **Problem Statement**

In the first line of the input you will be given a strictly positive integer n. We assure you that n will be less than or equal to 1000. In the next line you will be given a list of n integers. Given this, there arise two cases

- 1. If there are no two distinct values in the list, print the word "DEFAULT" (without quotes).
- 2. If there are at least two distinct values in the list, then you have to find the two distinct values in the list that give the maximum possible sum. In the first line of the output, give the locations of these two numbers in the list in increasing order separated by a single space. In the second line of the output, give the elements at those locations, separated by a single space.
- 3. If there are more than one pair of elements in the array which give the same (maximum sum), then you have to give the pair and where the locations, as printed in the first line, are *lexicographically smallest*.

Given two pairs of integers (a,b) and (c,d), we find the lexicographically smaller one as follows

- 1. If a < c then (a,b) is lexicographically smaller. If a > c then (c,d) is lexicographically smaller
- 2. If a == c but b < d then (a,b) is lexicographically smaller. If a == c but b > d then (c,d) is lexicographically smaller
- 3. If a == c and b == d then obviously the two pairs are identical.

#### Caution

- 1. While printing the locations, use human convention for locations and not array index convention i.e. the first element of the array is to be considered to be at location 1, and not location 0.
- 2. The list need not be in sorted order.
- 3. For the sake of this question, two elements are considered distinct only if they do not have the same value. For example, if the list consists of 5 elements, 1 2 4 4 6, then there are only 4 distinct elements in the list, namely 1,2,4 and 6.
- 4. Be careful about extra/missing lines and extra/missing spaces in your output.

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1.	You may	benefit	from	storing	the	list in	an	array	first.

## **EXAMPLE 1**:

**INPUT** 

5

88777

**OUTPUT**:

13

87

**Explanation**: Note that, the list has only two distinct elements (8 and 7), with 8 being at locations 1 & 2, while 7 is at indices 3,4,5. Clearly, the smallest pair, in terms of lexicographic ordering is (1, 3).

## **EXAMPLE 2**:

**INPUT** 

4

8888

OUTPUT:

**DEFAULT** 

**Explanation**: There are no two distinct elements in the list.

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# **Grading Scheme:**

Total marks: [10 Points]

There will be no partial grading in this question. An exact match will receive full marks whereas an incomplete match will receive 0 points. Please be careful of missing/extra spaces and missing/lines (take help of visible test cases). Each visible test case is worth 1 point and each hidden test case is worth 2 points. There are 2 visible and 4 hidden test cases.

**¥**¶ Start Solving! (/editor/practice/6169)