Bad Professor

Problem Statement:

Dr. Pradyuman is a professor of Computer Science in Lovely Professional University. He is very lazy and doesn't care about his student's future. He is supposed to assign marks for internal assessment to his students. The college authorities have made regulations according to which no two students can get the same marks. He has made a code to automate the process. The code assigns random marks to his students without considering anything. However, he is bad at coding also and after execution of the code, many students get the same marks.

He has to come up with a method to change the marks of minimum number of students manually such that the marks of all students are acceptable as per the college guidelines.

Input Format:

The first line contains a single integer *n* — the number of students who have to be assigned marks.

The second line contains n numbers a_1, a_2, ….., a_n - the initial marks assigned to the students after Dr. Pradyuman executes his code to assign random marks.

Output Format:

Print n numbers - the final marks of the students, in the order they occur in the input. If multiple answers are possible, print any of them.

Constraints:

- $1 \leq n \leq 10^5$
- $1 \leq a_i \leq 10^5$

Sample Input:

4
2 2 3 3

Sample Output:

2 1 3 4