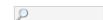
Problem - B - Codeforces 08/02/24, 2:04 PM





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# B. Following the String

time limit per test: 2 seconds memory limit per test: 256 megabytes input: standard input output: standard output

Polycarp lost the string s of length n consisting of lowercase Latin letters, but he still has its trace.

The trace of the string s is an array a of n integers, where  $a_i$  is the number of such indices j (j < i) that  $s_i = s_i$ . For example, the trace of the string abracadabra is the array [0, 0, 0, 1, 0, 2, 0, 3, 1, 1, 4].

Given a trace of a string, find any string s from which it could have been obtained. The string s should consist only of lowercase Latin letters a-z.

### Input

The first line of the input contains a single integer t ( $1 \le t \le 10^4$ ) — the number of test cases. Then the descriptions of the test cases follow.

The first line of each test case contains a single integer n ( $1 \le n \le 2 \cdot 10^5$ ) — the length of the lost string.

The second line of each test case contains n integers  $a_1, a_2, \ldots, a_n$   $(0 \le a_i < n)$  — the trace of the string. It is guaranteed that for the given trace, there exists a suitable string s.

It is guaranteed that the sum of *n* over all test cases does not exceed  $2 \cdot 10^5$ .

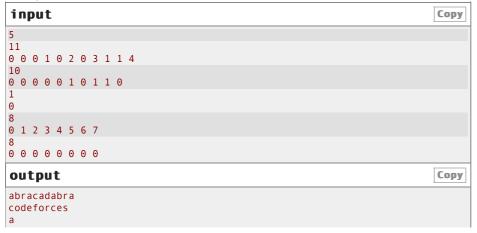
## Output

For each test case, output a string s that corresponds to the given trace. If there are multiple such strings s, then output any of them.

The string *s* should consist of lowercase Latin letters a-z.

It is guaranteed that for each test case, a valid answer exists.

### **Example**



## Codeforces Round 923 (Div. 3)

#### **Finished**

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Register for practice

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Start virtual contest

# → Problem tags constructive algorithms greedy strings No tag edit access

# → Contest materials

- Announcement (en)
- Tutorial

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aaaaaaaa dijkstra

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