Minimal String AZ101

? Ask Doubt

Time-Limit: 1 sec Score: 0.00/100 Difficulty :

Memory: 256 MB Accepted Submissions: 100

Description

You are given a string S along with 2 empty strings T and U. You can make the following two moves: pop first character of S and append it to T or pop last character of T and append it to U.

You need to make the string U lexicographically minimum such that string S and T are empty.

Input Format

The first line of the input contains one integer T - the number of test cases. Then T test cases follow.

The first line of each test contains a string S.

Output Format

For each test case, print the lexicographically minimum possible string U.

Constraints

$1 \leq T \leq 10^6$

$1 \leq |S| \leq 10^6$

It is guaranteed that the sum of |S| over all test cases does not exceed 10^6.

Sample Input 1

Copy

```
3
bdab
sss
gtddb
```

Sample Output 1

Copy

```
abdb
sss
bddtg
```

C++14[GCC]

Submit

```
1
```