All Contests > e7csd > Minimize String(G37)

Minimize String(G37)

Problem	Submissions	Leaderboard	Discussions

You have a string S consisting of N uppercase English letters. You are allowed to perform at most one operation of following kind: Choose any position in the string, remove the character at that position and insert it back to any other place in the string.

Find the lexicographically smallest string you can achieve.

Input Format

1. The first line of the input contains an integer T denoting the number of test cases. The description of T test cases follows.

2. The first line of each test case contains the single integer N denoting length of string S.

3. The second line contains the string S.

Constraints

1. $1 \le T \le 50$

2. $1 \le N \le 50$

3. S will consist of uppercase English letters

Output Format

1. For each test case, output a single line containing the answer to the corresponding test case.

Sample Input 0

```
2
4
DCBA
7
XYZZYZZ
```

Sample Output 0

```
ADCB
XYYZZZZ
```

Explanation 0

1. Example case 1. The optimal solution here is to choose the last character and put it in the beginning of the string. So the answer will be ADCB

2. Example case 2. The optimal solution here is to choose the 5-th character (1-based index) and put it between the 2-nd and the 3-rd characters. So the answer will be XYYZZZZ

Sample Input 1

```
2
4
GOLA
```

5
AYUSH

Sample Output 1

AGOL
AHYUS

Sample Input 2

2
5
ANAND
7
PARKASH

Sample Output 2

AANDN
APARKSH

Contest ends in an hour

Submissions: 1
Max Score: 20
Difficulty: Medium

Rate This Challenge:

☆ ☆ ☆ ☆ ☆

More

Current Buffer (saved locally, editable) ⎇ ↺   C++ ⌄   ⤢   ⚙

```cpp
1  #include <cmath>
2  #include <cstdio>
3  #include <vector>
4  #include <iostream>
5  #include <algorithm>
6  using namespace std;
7
8
9  int main() {
10     int t;
11      cin>>t;
12      while(t-->0)
13      {
14          int n;
15          cin>>n;
16          string s;
17          cin>>s;
18          string ans=s;
19          for(int i=0;i<n;i++)
20          {
21              string s2=s;
22              for(int j=0;j<=n;j++)
23              {
24                  if(j!=i)
25                  {
26                      s2.insert(j,1,s[i]);
27                      if(j<i)
28                          s2.erase(i+1,1);
29                      else
```

```
30                        s2.erase(i,1);
31                    ans=min(ans,s2);
32                    s2=s;
33                }
34            }
35        }
36        cout<<ans<<"\n";
37    }
38    return 0;
39 }
40
```

Line: 1 Col: 1

⬆ Upload Code as File   ☐ Test against custom input

Run Code   Submit Code

Testcase 0 ✔   Testcase 1 ✔   Testcase 2 ✔

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Input (stdin)

```
2
4
DCBA
7
XYZZYZZ
```

Your Output (stdout)

```
ADCB
XYYZZZZ
```

Expected Output

```
ADCB
XYYZZZZ
```