You have a string of **lowercase** letters.
Now you have to find the **maximum length substring** in any of the **permutation** of the original string, with the condition that this substring should be a **palindrome**.

Output the **lexicographically smallest palindromic substring** of **maximum length.**

Input :
First line will contain an integer '**T**' (number of test cases).
For each test case there is an integer '**N**' (Length of the string).
Next line contains a string of **lowercase** letters of length '**N**'

Output :
For each test case output the required answer.

Constraint :
T<=10000
1<=N<=1000000
sum of N over all test cases <=10^7

Sample input :

3
3
aba
4
abab
5
abcde

Sample output :

aba
abba
a