

## A. LLPS

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

This problem's actual name, "Lexicographically Largest Palindromic Subsequence" is too long to fit into the page headline.

You are given string  $s$  consisting of lowercase English letters only. Find its lexicographically largest palindromic subsequence.

We'll call a non-empty string  $s[p_1p_2...p_k] = s_{p_1}s_{p_2}...s_{p_k}$  ( $1 \leq p_1 < p_2 < ... < p_k \leq |s|$ ) a subsequence of string  $s = s_1s_2...s_{|s|}$ , where  $|s|$  is the length of string  $s$ . For example, strings "abcb", "b" and "abacaba" are subsequences of string "abacaba".

String  $x = x_1x_2...x_{|x|}$  is lexicographically larger than string  $y = y_1y_2...y_{|y|}$  if either  $|x| > |y|$  and  $x_1 = y_1, x_2 = y_2, ..., x_{|y|} = y_{|y|}$ , or there exists such number  $r$  ( $r < |x|, r < |y|$ ) that  $x_1 = y_1, x_2 = y_2, ..., x_r = y_r$  and  $x_{r+1} > y_{r+1}$ . Characters in the strings are compared according to their ASCII codes. For example, string "ranger" is lexicographically larger than string "racecar" and string "poster" is lexicographically larger than string "post".

String  $s = s_1s_2...s_{|s|}$  is a palindrome if it matches string  $rev(s) = s_{|s|}s_{|s|-1}...s_1$ . In other words, a string is a palindrome if it reads the same way from left to right and from right to left. For example, palindromic strings are "racecar", "refer" and "z".

### Input

The only input line contains a non-empty string  $s$  consisting of lowercase English letters only. Its length does not exceed 10.

### Output

Print the lexicographically largest palindromic subsequence of string  $s$ .

### Examples

input	Copy
radar	
output	Copy
rr	

input	Copy
bowwowwow	
output	Copy
wwwww	

input	Copy
codeforces	
output	Copy
s	

input	Copy
mississipp	
output	Copy
ssss	

### Note

Among all distinct subsequences of string "radar" the following ones are palindromes: "a", "d", "r", "aa", "rr", "ada", "rar", "rdr", "raar" and "radar". The lexicographically largest of them is "rr".

→ Attention

The package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, a solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then the value 800 ms will be displayed and used to determine the verdict.

Codeforces Round 127 (Div. 2)

Finished

Practice

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
<a href="#">234330310</a>	Nov/25/2023 23:53	Accepted

→ Problem tags

binary searchbitmasksb brute forcegreedyimplementationstrings\*800

No tag edit access

→ Contest materials

Codeforces Round #127 (ru)

Разбор задач (ru)