# A. Lexicographically Maximum Subsequence

You've got string $s$, consisting of only lowercase English letters. Find its lexicographically maximum subsequence.

We'll call a non-empty string $s[p_1 p_2 ... p_k] = s_{p_1} s_{p_2} ... s_{p_k} (1 \le p_1 < p_2 < ... < p_k \le |s|)$ a *subsequence* of string $s = s_1 s_2 ... s_{|s|}$.

String $x = x_1 x_2 ... x_{|x|}$ is *lexicographically larger* than string $y = y_1 y_2 ... y_{|y|}$, if either $|x| > |y|$ and $x_1 = y_1, x_2 = y_2, ... , x_{|y|} = y_{|y|}$, or 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 lines are compared like their ASCII codes.

## Input

The single line contains a non-empty string $s$, consisting only of lowercase English letters. The string's length doesn't exceed $10^5$.

## Output

Print the lexicographically maximum subsequence of string $s$.

## Examples

### input

```
ababba
```

### output

```
bbba
```

### input

```
abbcbccacbbcbaaba
```

### output

```
cccccbba
```

## Note

Let's look at samples and see what the sought subsequences look like (they are marked with uppercase bold letters).

The first sample: aBaBBA

The second sample: abbCbCCaCbbCBaaBA