

# String Reductions



Given a string,  $str = s_1, s_2 \dots s_n$ , consisting of  $n$  lowercase English characters ( $a - z$ ), remove all of the characters that occurred previously in the string. Formally, remove all characters,  $s_i$ , for:

$$\exists j, s_j = s_i \text{ and } j < i$$

## Input Format

A single line of input containing a string  $str$  of length  $n$ .

## Constraints

- $1 \leq n \leq 10^5$
- $s_i \in \{a, b, \dots, z\}$ , where  $1 \leq i \leq n$

## Output Format

Print the string after removing all the characters that occurred previously.

### Sample Input #00

```
accabb
```

### Sample Output #00

```
acb
```

### Sample Input #01

```
abc
```

### Sample Output #01

```
abc
```

### Sample Input #02

```
prrrq
```

### Sample Output #02

```
prq
```

## Explanation

*Test case #00:* For  $str = "accabb"$ , characters at indexes **3, 4, 6** are removed as they have already occurred.

*Test case #01:* As each character occurs only once, nothing is removed.

*Test case #02:* For  $str = "prrrq"$ , each character occurs twice. The second of these characters is

removed. Characters at positions **2**, **4** and **6** are removed.

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**Tested by** [Wanbo](#)