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Merge the Tools! **■**



Problem

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Consider the following:

- A string, s, of length n where $s = c_0 c_1 \dots c_{n-1}$.
- An integer, k, where k is a factor of n.

We can split s into $\frac{n}{k}$ subsegments where each subsegment, t_i , consists of a contiguous block of k characters in s. Then, use each t_i to create string u_i such that:

- The characters in $oldsymbol{u_i}$ are a subsequence of the characters in $oldsymbol{t_i}$.
- Any repeat occurrence of a character is removed from the string such that each character in u_i occurs exactly once. In other words, if the character at some index j in t_i occurs at a previous index < j in t_i, then do not include the character in string u_i.

Given s and k, print $\frac{n}{k}$ lines where each line i denotes string u_i .

Input Format

The first line contains a single string denoting s.

The second line contains an integer, k, denoting the length of each subsegment.

Constraints

- $1 \le n \le 10^4$, where n is the length of s
- $1 \le k \le n$
- It is guaranteed that $m{n}$ is a multiple of $m{k}$.

Output Format

Print $\frac{n}{k}$ lines where each line i contains string u_i .

Sample Input

AABCAAADA

Sample Output

AB

CA

AD

Explanation

String s is split into $\frac{n}{k} = \frac{9}{3} = 3$ equal parts of length k = 3. We convert each t_i to u_i by removing any subsequent occurrences non-distinct characters in t_i :

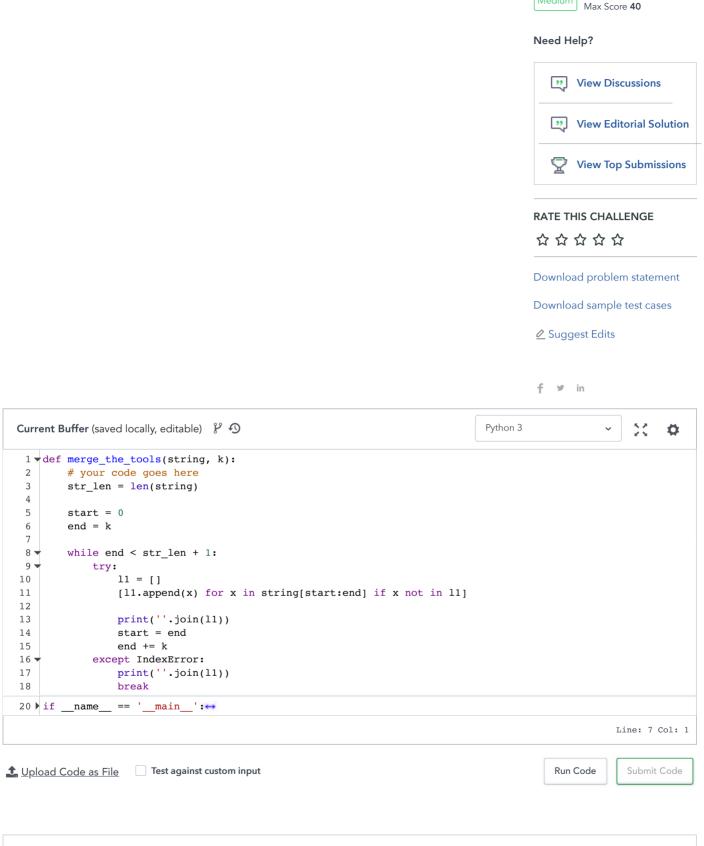
1.
$$t_0 = "AAB" \rightarrow u_0 = "AB"$$

2.
$$t_1 = "CAA" \rightarrow u_1 = "CA"$$

3.
$$t_2 = "ADA" \rightarrow u_2 = "AD"$$

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We then print each u_i on a new line.



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