STRING PROBLEM

Problem

Alex has a string **S** of length **N** consisting of lowercase alphabets. He wants to find lexicographically smallest string **X** of length **N** that can be formed using the following operation.

In one operation, he can select any one character among the at most first **K** characters of string **S**, remove it from string **S** and append it to string **X**. He can apply this operation as many times as he wants.

Help Alex find the string **X**.

Input format

- The first line consists of a string of length **N**
- The second line consists of an integer **K**.

Output format

- Print the lexicographically minimum string that can be formed using the above operation.

Constraints

- 1≤**?**≤105
- 1≤**?**≤**?**

Sample Input
hackerearth
3
Sample Output
aceheakrhrt
Time Limit: 1
Memory Limit: 256
Source Limit:

Explanation

First you can select 'a' from "**hac**kerearth". Now the string X becomes "a" and string S becomes "hckerearth".

Now after applying the operation again, the string X becomes "ac" and the string S becomes "hkerearth".

Similarly after applying the operation n times, the string X becomes "aceheakrhrt".