

# N Choose K

## Objective

The objective of this problem is to test the students' understanding on **Recursion**.

## Problem Description

Find out all possible combinations of choosing **K** letters out of an input string of **N** distinct letters. The input consists of an integer, **K** and a string of **N** distinct lowercase letters listed in alphabetical order.

Assume that  $1 \leq N \leq 16$  and  $1 \leq K \leq N$ . Print out all distinct letter combinations in alphabetical order: every combination can be represented as a string consisting of **K** letters listed in alphabetical order.

Note: The constraint of **N** is changed due to limitation in CodeCrunch. If **N** = 26 and **K** = 13, then the output size will be very big.

## Input

The input consists of an integer **K** and **N** distinct letters listed in alphabetical order.

## Output

Output all distinct letter combinations in alphabetical order.

### Sample Input 1

2 abcd

### Sample Output 1

ab  
ac  
ad  
bc  
bd  
cd

### Sample Input 2

4 abcd

### Sample Output 2

abcd

### Sample Input 3

1 abcd

### Sample Output 3

a  
b  
c  
d

## Note

The main Java class must be called **NChooseK**, and be in the source file **NChooseK.java**.