# **Java Substring Comparisons**

We define the following terms:

 <u>Lexicographical Order</u>, also known as alphabetic or dictionary order, orders characters as follows:

```
For example, ball < cat, dog < dorm, Happy < happy, Zoo < ball.
```

• A <u>substring</u> of a string is a contiguous block of characters in the string. For example, the substrings of abc are a, b, c, ab, bc, and abc.

Given a string, , and an integer, , complete the program so that it finds the lexicographically *smallest* and *largest* substrings of length .

## **Function Description**

Complete the getSmallestAndLargest program in the editor below.

getSmallestAndLargest has the following parameters:

- string s: a string
- int k: the length of the substrings to find

#### Returns

• string: the string ' + "\n" + ' where and are the two substrings

## **Input Format**

The first line contains a string denoting.

The second line contains an integer denoting.

#### **Constraints**

- 1 <= |s| <= 1000
- s consists of English alphabetic letters only (i.e., [a-zA-Z]).

## Sample Input 0

# **Sample Output 0**

ava

wel

# **Explanation 0**

String has the following lexicographically-ordered substrings of length:

```
"ava", "com", "alc", "etc", "jav", "lco", "met", "oja", "ome", "toj", "ove"
```

We then return the first (lexicographically smallest) substring and the last (lexicographically largest) substring as two newline-separated values (i.e., ava\nwel).

The stub code in the editor then prints ava as our first line of output and wel as our second line of output.