Problem 3406: Find the Lexicographically Largest String From the Box II

Problem Information

Difficulty: Hard
Acceptance Rate: 49.64%
Paid Only: Yes
Tags: Two Pointers, String

Problem Description

You are given a string `word`, and an integer `numFriends`.

Alice is organizing a game for her `numFriends` friends. There are multiple rounds in the game, where in each round:

* `word` is split into `numFriends` **non-empty** strings, such that no previous round has had the **exact** same split. * All the split words are put into a box.

Find the **lexicographically largest** string from the box after all the rounds are finished.

A string `a` is **lexicographically smaller** than a string `b` if in the first position where `a` and `b` differ, string `a` has a letter that appears earlier in the alphabet than the corresponding letter in `b`. If the first `min(a.length, b.length)` characters do not differ, then the shorter string is the lexicographically smaller one.

Example 1:

Input: word = "dbca", numFriends = 2

Output: "dbc"

Explanation:

All possible splits are:

* `"d"` and `"bca"`. * `"db"` and `"ca"`. * `"dbc"` and `"a"`.

Example 2:

Input: word = "gggg", numFriends = 4

Output: "g"

Explanation:

The only possible split is: `"g"`, `"g"`, `"g"`, and `"g"`.

Constraints:

* `1 <= word.length <= 2 * 105` * `word` consists only of lowercase English letters. * `1 <= numFriends <= word.length`

Code Snippets

C++:

```
class Solution {
public:
string answerString(string word, int numFriends) {

}
};
```

Java:

```
class Solution {
public String answerString(String word, int numFriends) {

}
}
```

Python3:

```
class Solution:
def answerString(self, word: str, numFriends: int) -> str:
```