

Problem 1087: Brace Expansion

Problem Information

Difficulty: Medium

Acceptance Rate: 66.75%

Paid Only: Yes

Tags: String, Backtracking, Stack, Breadth-First Search, Sorting

Problem Description

You are given a string `s` representing a list of words. Each letter in the word has one or more options.

* If there is one option, the letter is represented as is. * If there is more than one option, then curly braces delimit the options. For example, `"\{a,b,c\}"` represents options `["a", "b", "c"]` .

For example, if `s = "a{\b,c}"` , the first character is always `'a'` , but the second character can be `'b'` or `'c'` . The original list is `["ab", "ac"]` .

Return all words that can be formed in this manner, **sorted** in lexicographical order.

Example 1:

Input: s = "{a,b}c{\d,e}f" **Output:** ["acdf", "acef", "bcdf", "bcef"]

Example 2:

Input: s = "abcd" **Output:** ["abcd"]

Constraints:

* `1 <= s.length <= 50` * `s` consists of curly brackets `'{}` , commas `','` , and lowercase English letters. * `s` is guaranteed to be a valid input. * There are no nested curly brackets. * All characters inside a pair of consecutive opening and ending curly brackets are different.

Code Snippets

C++:

```
class Solution {  
public:  
vector<string> expand(string s) {  
  
}  
};
```

Java:

```
class Solution {  
public String[] expand(String s) {  
  
}  
}
```

Python3:

```
class Solution:  
def expand(self, s: str) -> List[str]:
```