

중복된 문자를 제외하고 사전식 순서로 나열하라.

Input: s = "bcabc"

Output: "abc"

### 1. 재귀

class Solution:

```
def removeDuplicateLetters(self, s: str) -> str:
    for c in sorted(set(s)):
        suffix = s[s.index(c):]
        if set(s) == set(suffix):
            return c + self.removeDuplicateLetters(suffix.replace(c, ''))
    return ''
```

- 알파벳 순으로 suffix안에 모든 s안의 모든 문자가 들어가는지 재귀적으로 판별

### 2. 스택

class Solution:

```
def removeDuplicateLetters(self, s: str) -> str:
    counter, seen, stack = collections.Counter(s), set(), []
    for char in s:
        counter[char] -= 1
        if char in seen:
            continue
        while stack and char < stack[-1] and counter[stack[-1]] > 0:
            seen.remove(stack.pop())
        stack.append(char)
        seen.add(char)
    return ''.join(stack)
```

class Solution:

```
def removeDuplicateLetters(self, s: str) -> str:
    counter, stack = collections.Counter(s), []
    for char in s:
        counter[char] -= 1
        if char in stack:
            continue
        while stack and char < stack[-1] and counter[stack[-1]] > 0:
            stack.pop()
        stack.append(char)
    return ''.join(stack)
```