

Words - K Selection - 4

1. You are given a word (may have one character repeat more than once). 2. You are given an integer k. 3. You are required to generate and print all ways you can select k characters out of the word. Note - > Use the code snippet and follow the algorithm discussed in question video. The judge can't force you but the intention is to teach a concept. Play in spirit of the question.

Constraints

$0 < \text{str.length}() < 15$ $0 < k \leq \text{str.length}()$

Format

Input

Input is managed for you

Output

Check the sample output and question video.

Example

Sample Input

aabbbccdde

3

['aab', 'aac', 'aad', 'aae', 'abb', 'abc', 'abd', 'abe', 'acc', 'acd', 'ace', 'add', 'ade', 'bbb', 'bbc', 'bbd', 'bbe', 'bcc', 'bcd', 'bce', 'bdd', 'bde', 'ccd', 'cce', 'cdd', 'cde', 'dde']

```
import collections

def wordsKSelectionIII(s, k):
    fmap = collections.Counter(s)
    s = sorted(''.join(list(set(s))))
    ans = []
    helper(s, ans, fmap, 0, '', k, 0)
    return ans

def helper(s, ans, fmap, idx, ssf, k, lcui):
```

```
if len(ssf) == k:
    ans.append(ssf)
    return

for i in range(lcui, len(s)):
    ch = s[i]
    if fmap[ch] > 0:
        fmap[ch] = fmap[ch] - 1
        helper(s, ans, fmap, idx + 1, ssf + ch, k, i)
        fmap[ch] = fmap[ch] + 1

print(wordsKSelectionIII('aabbccdde', 3))
```