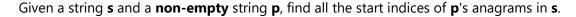
2021/1/2 My Notes - LeetCode

# 438. Find All Anagrams in a String



Strings consists of lowercase English letters only and the length of both strings **s** and **p** will not be larger than 20,100.

The order of output does not matter.

### **Example 1:**

```
Input:
s: "cbaebabacd" p: "abc"

Output:
[0, 6]

Explanation:
The substring with start index = 0 is "cba", which is an anagram of "abc".
The substring with start index = 6 is "bac", which is an anagram of "abc".
```

### Example 2:

```
Input:
s: "abab" p: "ab"

Output:
[0, 1, 2]

Explanation:
The substring with start index = 0 is "ab", which is an anagram of "ab".
The substring with start index = 1 is "ba", which is an anagram of "ab".
The substring with start index = 2 is "ab", which is an anagram of "ab".
```

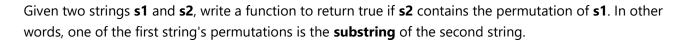
# 找到string中的易位构词(anagram)所有起始index

## Hash table, String, fixed size sliding window

- 1. two int[26] arrays to store the occurence of char
- 2. iterate [0, plength] to store the frequence of first plength size characters
- 3. then iterate [1, slength-plength] with a fixed plength window to scare the rest string
- 4. decrease the frequence out of the current window and increase the frequence new inside the current window
- 5. if Arrays.equals(mapS, mapP) two hashmaps are the same that means there is a match of anagram

https://leetcode.com/notes/

# 567. Permutation in String <sup>☑</sup>



### **Example 1:**

```
Input: s1 = "ab" s2 = "eidbaooo"
```

Output: True

Explanation: s2 contains one permutation of s1 ("ba").

### **Example 2:**

```
Input:s1= "ab" s2 = "eidboaoo"
```

Output: False

#### **Constraints:**

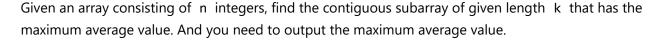
- The input strings only contain lower case letters.
- The length of both given strings is in range [1, 10,000].

## 大字符串是否包含小字符串的排列

## Array, fixed size sliding window

same approach as 438

# 643. Maximum Average Subarray I



#### Example 1:

Input: [1,12,-5,-6,50,3], k = 4

**Output:** 12.75

**Explanation:** Maximum average is (12-5-6+50)/4 = 51/4 = 12.75

https://leetcode.com/notes/

#### Note:

- 1. 1 <= k <= n <= 30,000.
- 2. Elements of the given array will be in the range [-10,000, 10,000].

## 最大平均数的k长度子数组

## fixed size sliding window

- 1. sum first k values as raw result
- 2. main a k size sliding window to iterate the array [1, length-k]
- 3. while iterating, delete the one out of the window, and add the one new inside the window to main a sum of k values.

https://leetcode.com/notes/