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Grokking the Coding Interview: Patterns for Coding Questions

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Smallest Subarray with a given sum (easy)
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Longest Substring with K Distinct Characters (medium)
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Fruits into Baskets (medium)
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No-repeat Substring (hard)
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Longest Substring with Same Letters after Replacement (hard)
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Longest Subarray with Ones after Replacement (hard)
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Problem Challenge 2

We'll cover the following



- String Anagrams (hard)
- Try it yourself

String Anagrams (hard)

Given a string and a pattern, find **all anagrams of the pattern in the given string**.

Anagram is actually a **Permutation** of a string. For example, “abc” has the following six anagrams:

1. abc
2. acb
3. bac
4. bca
5. cab
6. cba

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Write a function to return a list of starting indices of the anagrams of the pattern in the given string.



Example 1:

Input: String="ppqp", Pattern="pq"

Output: [1, 2]

Explanation: The two anagrams of the pattern in the given string are "pq" and "qp".

Example 2:

Input: String="abbcabc", Pattern="abc"

Output: [2, 3, 4]

Explanation: The three anagrams of the pattern in the given string are "bca", "cab", and "abc".

Try it yourself

Try solving this question here:

Java

Python3

JS JS


C++

```
10         return false;
11     }
12 }
13     return true;
14 }
15     public static List<Integer> findStringAnagrams(String s, String p) {
16         List<Integer> resultIndices = new ArrayList<Integer>();
17         // TODO: Write your code here
18         int c1[] = new int[26];
19         int c2[] = new int[26];
20         for (int i = 0; i < p.length(); i++) {
21             c1[p.charAt(i) - 'a']++;
22             c2[s.charAt(i) - 'a']++;
23         }
24         if (Arrays.equals(c1, c2)) {
25             resultIndices.add(0);
26         }
27         for (int i = 1; i < s.length(); i++) {
28             c2[s.charAt(i - 1) - 'a']--;
29             c2[s.charAt(i) - 'a']++;
30             if (Arrays.equals(c1, c2)) {
31                 resultIndices.add(i);
32             }
33         }
34         return resultIndices;
35     }
36 }
```



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```
20 int n = pattern.length();
21 for(int i=0;i<n;i++)
22 {
23     c1[pattern.charAt(i)-'a']++;
24 }
25 int m = str.length(),start=0;
26 for(int i=0;i<m;i++)
27 {
28     c2[str.charAt(i)-'a']++;
29     if(i>=n-1)
30     {
31         if(compare(c1,c2))
32         {
33             resultIndices.add(start);
34         }
35         c2[str.charAt(start)-'a']--;
36         start++;
37     }
38 }
39 return resultIndices;
```

Test


Save *


Reset



Show Results

Show Console




 2 of 2 Tests Passed

Result	Input	Expected Output	Actual Output	Reason
✓	findStringAnagrams(ppqp, pq)	[1, 2]	[1, 2]	Succeeded
✓	findStringAnagrams(abbcab, abc)	[2, 3, 4]	[2, 3, 4]	Succeeded

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Solution Review: Problem Challenge 1


Solution Review: Problem Challenge 2

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