



#392 

Is Subsequence

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2025-01-23

Problem Definition (1)

- Source: **Leetcode**



- Title: **Is Subsequence**
- Difficulty: **easy**
- Type: **Strings**

Problem Definition (1)

392. Is Subsequence

Easy

Topics

Companies

Given two strings `s` and `t`, return `true` if `s` is a **subsequence** of `t`, or `false` otherwise.

A **subsequence** of a string is a new string that is formed from the original string by deleting some (can be none) of the characters without disturbing the relative positions of the remaining characters. (i.e., "ace" is a subsequence of "abcde" while "aec" is not).

Example 1:

Input: `s = "abc", t = "ahbgdc"`

Output: `true`

Example 2:

Input: `s = "axc", t = "ahbgdc"`

Output: `false`



Constraints:

- `0 <= s.length <= 100`
- `0 <= t.length <= 104`
- `s` and `t` consist only of lowercase English letters.



Solution (1):

$s = \text{"THE"}$



$t = \text{"TUREHEM"}$



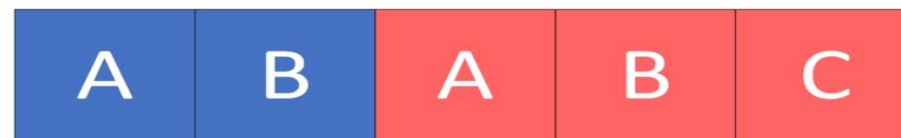
Subsequence 1



Subsequence 2



Subsequence 3





Solution (2):

```
1 class Solution:
2     def isSubsequence(self, s: str, t: str) -> bool:
3         S = len(s)
4         T = len(t)
5
6         if s == '': return True
7         if S > T: return False
8
9         j = 0
10        for i in range(T):
11            if t[i] == s[j]:
12                if j == S-1: return True
13                j += 1
14        return False
15
```

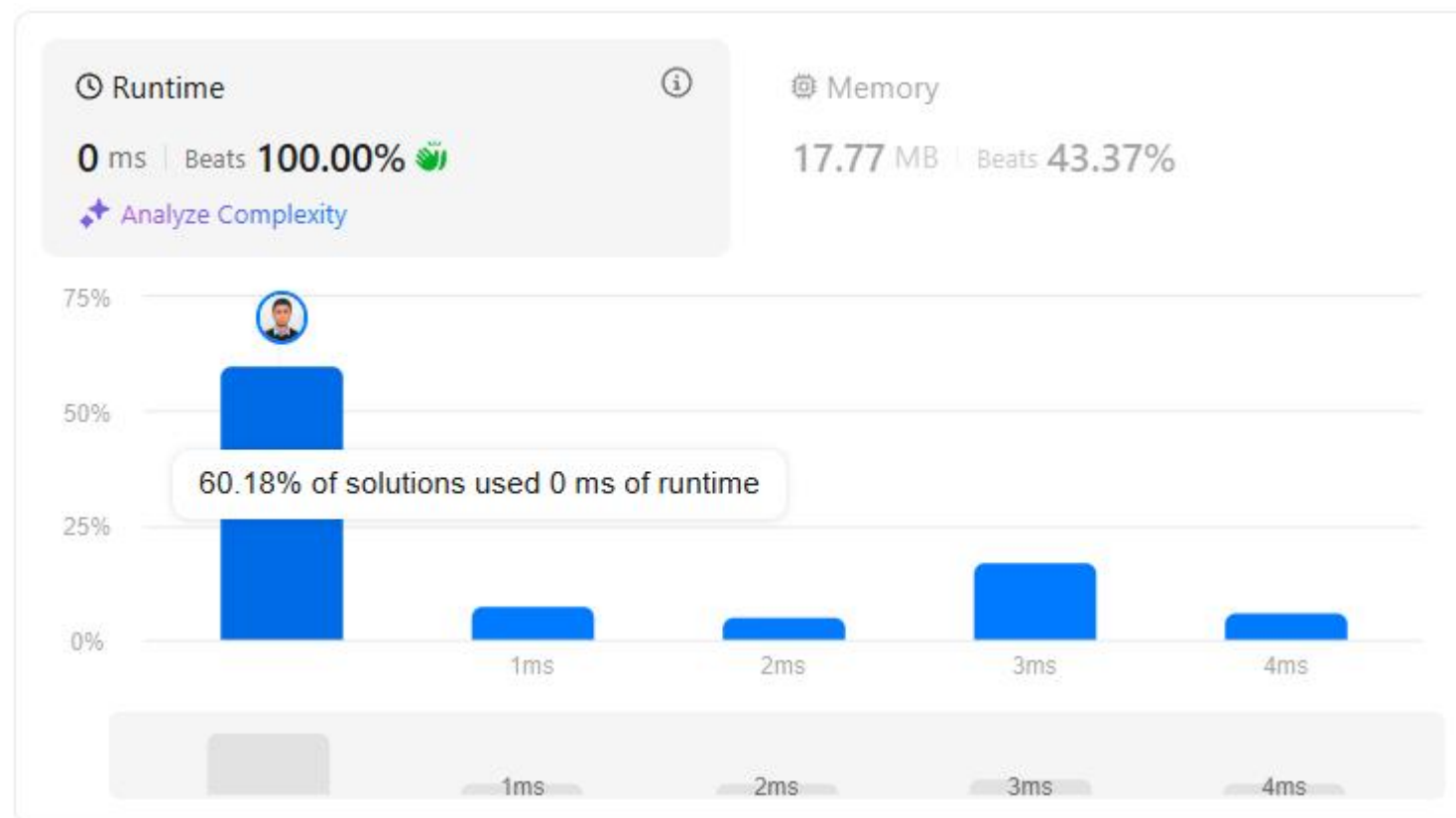
len() function to get time to check operator

s is nothing , it means s is always subsequence of t
if lenght of t < s, there is no option

#checking based on t[i] = s[j]



Solution (3)



Accepted Runtime: 0 ms

• Case 1 • Case 2

Input

s =
"axc"

t =
"ahbgdc"

Output

false

Expected

false

What I have learned

❖ **Strings:**

- ✓ Checking Strings based on given operators
- ✓ Time: $O(T)$ # T times for the length of s (string)
- ✓ Space: $O(1)$ #no space



Questions and Answers

Greetings