

392. Is Subsequence

Given two strings `s` and `t`, check if `s` is a **subsequence** of `t`.

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.

```
def isSubsequence(self, s: str, t: str) -> bool:
```

```
    dp = [[0 for j in range(len(t)+1)] for i in range(len(s)+1)]
```

```
        for i in range(1, len(s)+1):
            for j in range(1, len(t)+1):
                if s[i-1]==t[j-1]:
                    dp[i][j] = 1+dp[i-1][j-1]
                else:
                    dp[i][j] = max(dp[i-1][j], dp[i][j-1])
        return dp[len(s)][len(t)]==len(s)
```

```
#Second Approach
```

```
    i = 0
    j=0
    while i<len(s) and j<len(t):
        if s[i]==t[j]:
            i = i+1
            j = j+1
    return i==len(s)
```

