

Problem 1165: Single-Row Keyboard

Problem Information

Difficulty: Easy

Acceptance Rate: 87.73%

Paid Only: Yes

Tags: Hash Table, String

Problem Description

There is a special keyboard with **all keys in a single row**.

Given a string `keyboard` of length `26` indicating the layout of the keyboard (indexed from `0` to `25`). Initially, your finger is at index `0`. To type a character, you have to move your finger to the index of the desired character. The time taken to move your finger from index `i` to index `j` is `|i - j|`.

You want to type a string `word`. Write a function to calculate how much time it takes to type it with one finger.

Example 1:

Input: `keyboard = "abcdefghijklmnopqrstuvwxyz", word = "cba"` **Output:** `4`

Explanation: The index moves from 0 to 2 to write 'c' then to 1 to write 'b' then to 0 again to write 'a'. Total time = $2 + 1 + 1 = 4$.

Example 2:

Input: `keyboard = "pqrstuvwxyzabcdefghijklmnop", word = "leetcode"` **Output:** `73`

Constraints:

`keyboard.length == 26` * `keyboard` contains each English lowercase letter exactly once in some order. * `1 <= word.length <= 104` * `word[i]` is an English lowercase letter.

Code Snippets

C++:

```
class Solution {  
public:  
    int calculateTime(string keyboard, string word) {  
  
    }  
};
```

Java:

```
class Solution {  
    public int calculateTime(String keyboard, String word) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def calculateTime(self, keyboard: str, word: str) -> int:
```