Anagram Difference

75 points
25 minute(s)
Problem Solving Algorithms Data Structures Strings Hashing Medium

An anagram is a word whose characters can be rearranged to create another word. Given two strings, determine the minimum number of characters in either string that must be modified to make the two strings anagrams . If it is not possible to make the two strings anagrams, return -1.

Example:

a = ['tea', 'tea', 'act']

b = ['ate', 'toe', 'acts']

- *a[0] = tea* and *b[0] = ate* are anagrams, so *0* characters need to be modified.
- *a[1] = tea* and *b[1] = toe* are not anagrams. Modify 1 character in either string (o → a or a → o) to make them anagrams.
- *a[2] = act* and *b[2] = acts* are not anagrams and cannot be converted to anagrams because they contain different numbers of characters.
- The return array is *[0, 1, -1]*

Function Description

Complete the function *getMinimumDifference* in the editor below.

getMinimumDifference has the following parameter(s):

string a[n]: an array of strings

string b[n]: an array of strings

Return

int[n]: an array of integers which denote the minimum number of characters in either string that need to be modified to make the two strings anagrams. If it is not possible, return -1.

Constraints

- Each string consists of lowercase characters [a-z].
- $1 \le n \le 100$
- $0 \le |a[i]|, |b[i]| \le 10^4$
- $1 \le |a[i]| + |b[i]| \le 10^4$

Input Format for Custom TestingSample Case 0

Sample Input For Custom Testing

```
STDIN    Function
-----    --------
5    →   a[] size n = 5
a    →   a = ['a', 'jk', 'abb', 'mn', 'abc']
jk
abb
mn
abc
5    →   b[] size n = 5
bb   →   b = ['bb', 'kj', 'bbc', 'op', 'def']
kj
bbc
op
def
```

Sample Output

```
-1
0
1
2
3
```

Explanation

Perform the following $n = 5$ calculations:

- Index 0: a and bb cannot be anagrams because they contain different numbers of characters.
- Index 1: jk and kj are already anagrams because they both contain the same characters at the same frequencies.
- Index 2: abb and bbc differ by one character.
- Index 3: mn and op differ by two characters.
- Index 4: abc and def differ by three characters.

After checking each pair of strings, return the array [-1, 0, 1, 2, 3] as the answer.