Full Name:	Elijah Balogun
Email:	dzabeligan@gmail.com
Test Name:	**Mock Test**
Taken On:	28 Jul 2023 22:22:43 IST
Time Taken:	11 min 50 sec/ 30 min
Invited by:	Ankush
Invited on:	28 Jul 2023 22:19:16 IST
Skills Score:	
Tags Score:	Algorithms 70/70 Core CS 70/70 Easy 70/70 Strings 70/70 problem-solving 70/70

100%

70/70

scored in **Mock Test** in 11 min 50 sec on 28 Jul 2023 22:22:43 IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Anagram > **Coding**	11 min 40 sec	70/ 70	✓

QUESTION 1

Correct Answer

Score 70

Anagram > Coding

Strings | Algorithms | Easy | problem-solving | Core CS

QUESTION DESCRIPTION

Two words are *anagrams* of one another if their letters can be rearranged to form the other word.

Given a string, split it into two contiguous substrings of equal length. Determine the minimum number of characters to change to make the two substrings into anagrams of one another.

Example

$s = \text{abccde}$

Break s into two parts: 'abc' and 'cde'. Note that all letters have been used, the substrings are contiguous and their lengths are equal. Now you can change 'a' and 'b' in the first substring to 'd' and 'e' to have 'dec' and 'cde' which are anagrams. Two changes were necessary.

Function Description

Complete the *anagram* function in the editor below.

anagram has the following parameter(s):

- *string s:* a string

Returns

- *int:* the minimum number of characters to change or -1.

Input Format

The first line will contain an integer, q, the number of test cases.
Each test case will contain a string s.

Constraints

- $1 \leq q \leq 100$
- $1 \leq |s| \leq 10^4$
- s consists only of characters in the range ascii[a-z].

Sample Input

```
6
aaabbb
ab
abc
mnop
xyyx
xaxbbbxx
```

Sample Output

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

Explanation

Test Case #01: We split s into two strings $S1$='aaa' and $S2$='bbb'. We have to replace all three characters from the first string with 'b' to make the strings anagrams.

Test Case #02: You have to replace 'a' with 'b', which will generate "bb".

Test Case #03: It is not possible for two strings of unequal length to be anagrams of one another.

Test Case #04: We have to replace both the characters of first string ("mn") to make it an anagram of the other one.

Test Case #05: $S1$ and $S2$ are already anagrams of one another.

Test Case #06: Here *S1 = "xaxb"* and *S2 = "bbxx"*. You must replace 'a' from *S1* with 'b' so that *S1 = "xbxb"*.

CANDIDATE ANSWER

Language used: **Python 3**

```
#
# Complete the 'anagram' function below.
#
# The function is expected to return an INTEGER.
# The function accepts STRING s as parameter.
#

def anagram(s):
    # Write your code here
```

```
    if len(s) & 1:
        return -1

    s1_count = {}
    s2_count = {}

    for letter in s[:int(len(s)/2)]:
        s1_count[letter] = s1_count.get(letter, 0) + 1

    for letter in s[int(len(s)/2):]:
        s2_count[letter] = s2_count.get(letter, 0) + 1

    counter = 0

    for key, value in s1_count.items():
        if key in s2_count:
            counter += abs(value - s2_count[key])
            s2_count.pop(key)
        else:
            counter += value

    for value in s2_count.values():
        counter += value

    return counter//2
```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Hidden case	Success	5	0.0784 sec	10.7 KB
Testcase 2	Easy	Hidden case	Success	5	0.0689 sec	10.6 KB
Testcase 3	Easy	Hidden case	Success	5	0.1514 sec	10.8 KB
Testcase 4	Easy	Hidden case	Success	5	0.0771 sec	10.7 KB
Testcase 5	Easy	Hidden case	Success	5	0.1579 sec	10.8 KB
Testcase 6	Easy	Hidden case	Success	5	0.1459 sec	10.9 KB
Testcase 7	Easy	Hidden case	Success	5	0.0781 sec	10.9 KB
Testcase 8	Easy	Hidden case	Success	5	0.1756 sec	10.8 KB
Testcase 9	Easy	Hidden case	Success	5	0.1717 sec	10.8 KB
Testcase 10	Easy	Hidden case	Success	5	0.1187 sec	10.7 KB
Testcase 11	Easy	Hidden case	Success	5	0.075 sec	10.7 KB
Testcase 12	Easy	Hidden case	Success	5	0.1398 sec	10.8 KB
Testcase 13	Easy	Hidden case	Success	5	0.0944 sec	10.9 KB
Testcase 14	Easy	Hidden case	Success	5	0.1197 sec	10.8 KB
Testcase 15	Easy	Sample case	Success	0	0.1132 sec	10.7 KB
Testcase 16	Easy	Sample case	Success	0	0.1127 sec	10.6 KB

No Comments