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Test Name:	**Mock Test**
Taken On:	19 Jan 2024 22:31:05 IST
Time Taken:	26 min 50 sec/ 30 min
Linkedin:	https://www.linkedin.com/in/musab-oguz-68990a200/
Invited by:	Ankush
Invited on:	19 Jan 2024 22:08:01 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 26 min 50 sec on 19 Jan 2024 22:31:05 IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Anagram > **Coding**	26 min 45 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.

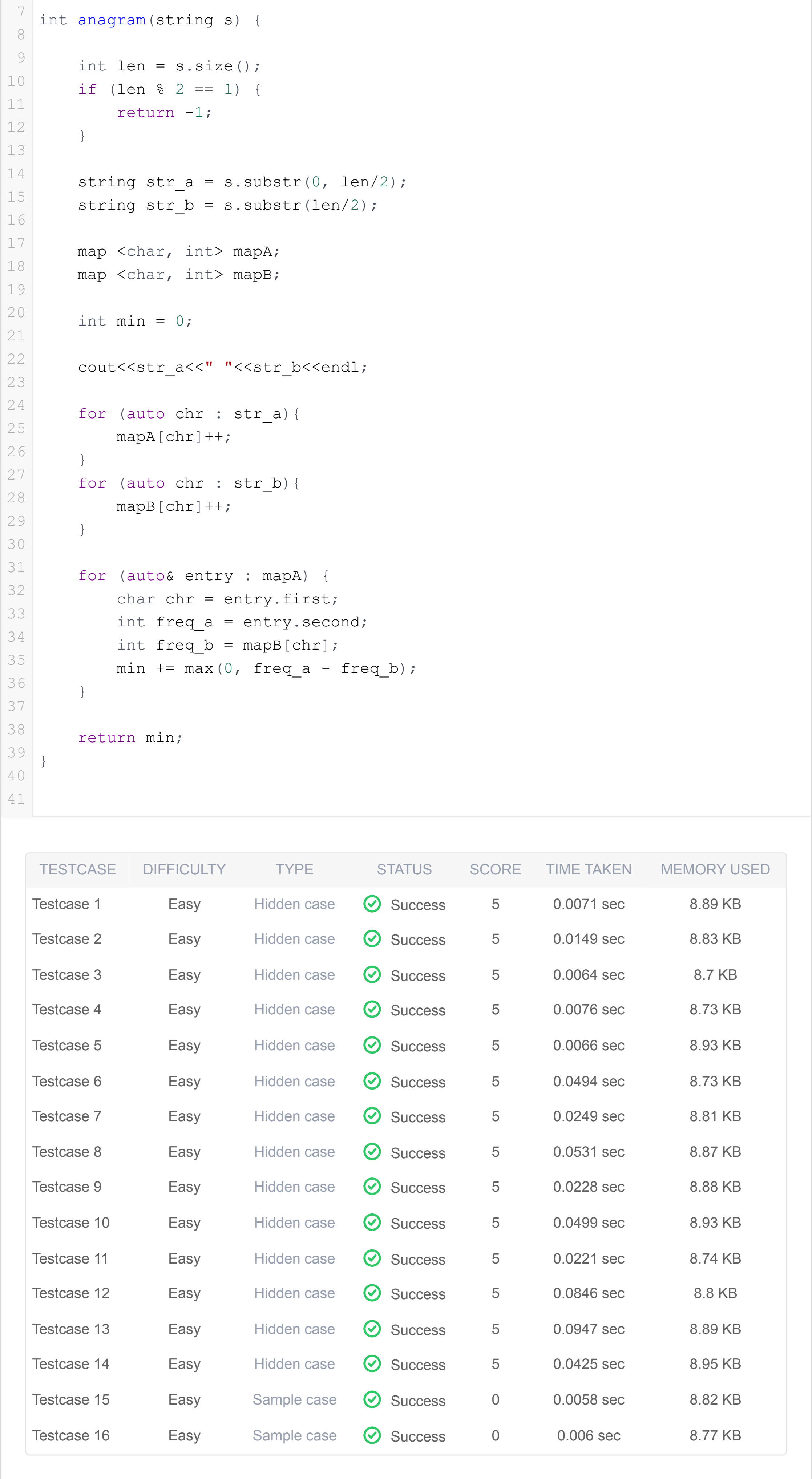
Test Case #05: $S1$ and $S2$ are already anagrams of one another.

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: **C++14**

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



```
int anagram(string s) {

    int len = s.size();
    if (len % 2 == 1) {
        return -1;
    }

    string str_a = s.substr(0, len/2);
    string str_b = s.substr(len/2);

    map <char, int> mapA;
    map <char, int> mapB;

    int min = 0;

    cout<<str_a<<" "<<str_b<<endl;

    for (auto chr : str_a){
        mapA[chr]++;
    }
    for (auto chr : str_b){
        mapB[chr]++;
    }

    for (auto& entry : mapA) {
        char chr = entry.first;
        int freq_a = entry.second;
        int freq_b = mapB[chr];
        min += max(0, freq_a - freq_b);
    }

    return min;
}
```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Hidden case	✓ Success	5	0.0071 sec	8.89 KB
Testcase 2	Easy	Hidden case	✓ Success	5	0.0149 sec	8.83 KB
Testcase 3	Easy	Hidden case	✓ Success	5	0.0064 sec	8.7 KB
Testcase 4	Easy	Hidden case	✓ Success	5	0.0076 sec	8.73 KB
Testcase 5	Easy	Hidden case	✓ Success	5	0.0066 sec	8.93 KB
Testcase 6	Easy	Hidden case	✓ Success	5	0.0494 sec	8.73 KB
Testcase 7	Easy	Hidden case	✓ Success	5	0.0249 sec	8.81 KB
Testcase 8	Easy	Hidden case	✓ Success	5	0.0531 sec	8.87 KB
Testcase 9	Easy	Hidden case	✓ Success	5	0.0228 sec	8.88 KB
Testcase 10	Easy	Hidden case	✓ Success	5	0.0499 sec	8.93 KB
Testcase 11	Easy	Hidden case	✓ Success	5	0.0221 sec	8.74 KB
Testcase 12	Easy	Hidden case	✓ Success	5	0.0846 sec	8.8 KB
Testcase 13	Easy	Hidden case	✓ Success	5	0.0947 sec	8.89 KB
Testcase 14	Easy	Hidden case	✓ Success	5	0.0425 sec	8.95 KB
Testcase 15	Easy	Sample case	✓ Success	0	0.0058 sec	8.82 KB
Testcase 16	Easy	Sample case	✓ Success	0	0.006 sec	8.77 KB

No Comments