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Test Name:	**Mock Test**
Taken On:	19 Oct 2021 11:47:34 IST
Time Taken:	10 min 47 sec/ 22 min
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Invited by:	Ankush
Invited on:	19 Oct 2021 11:34:45 IST
Skills Score:	
Tags Score:	Algorithms 65/105 Core CS 65/105 Easy 65/105 Problem Solving 65/105 Strings 65/105 problem-solving 65/105

61.9%

65/105

scored in **Mock Test** in 10 min 47 sec on 19 Oct 2021 11:47:34 IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Palindrome Index > **Coding**	10 min 33 sec	65/ 105	✓

QUESTION 1

Correct Answer

Score 65

Palindrome Index > Coding

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

QUESTION DESCRIPTION

Given a string of lowercase letters in the range ascii[a-z], determine the index of a character that can be removed to make the string a palindrome. There may be more than one solution, but any will do. If the word is already a palindrome or there is no solution, return *-1*. Otherwise, return the index of a character to remove.

Example

$s = \text{"bcbc"}$

Either remove *'b'* at index 0 or *'c'* at index 3.

Function Description

Complete the *palindromeIndex* function in the editor below.

palindromeIndex has the following parameter(s):

- *string s:* a string to analyze

Returns

- *int:* the index of the character to remove or -1

Input Format

The first line contains an integer q, the number of queries.
Each of the next q lines contains a query string s.

Constraints

- $1 \leq q \leq 20$
- $1 \leq \text{length of } s \leq 10^5 + 5$
- All characters are in the range ascii[a-z].

Sample Input

```
STDIN   Function
-----   --------
3       q = 3
aaab    s = 'aaab' (first query)
baa     s = 'baa'  (second query)
aaa     s = 'aaa'  (third query)
```

Sample Output

```
3
0
-1
```

Explanation

Query 1: "aaab"
Removing *'b'* at index 3 results in a palindrome, so return 3.

Query 2: "baa"
Removing *'b'* at index 0 results in a palindrome, so return 0.

Query 3: "aaa"
This string is already a palindrome, so return -1. Removing any one of the characters would result in a palindrome, but this test comes first.

Note: The custom checker logic for this challenge is available here.

CANDIDATE ANSWER

Language used: **C++**

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

bool is_palindrome(string s){
    int start(0), end(s.size()-1);
    while(start < end){
        if(s[start] != s[end]){
            return false;
```

```
        }
        start++;
        end--;
    }
    return true;
}

int palindromeIndex(string s) {
    cout << "string s : " << s << endl;
    string s1;
    if(is_palindrome(s)){
        cout << "1st check palyndrome succeeded --> return -1" << endl;
        return -1;
    }
    cout << "1st check palyndrome failed" << endl;
    for(size_t i=0; i<s.size(); ++i){
        s1 = s;
        s1.erase(i,1);
        if(is_palindrome(s1)){
            cout << s1 << " detected as palyndrome --> return " << i << endl;
            return i;
        }
    }
    cout << "no palyndrome found even if removing any of the characters -->
return -1" << endl;
    return -1;
}

```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	Success	0	0.0155 sec	8.95 KB
Testcase 2	Medium	Hidden case	Wrong Answer	0	0.03 sec	8.96 KB
Testcase 3	Medium	Hidden case	Success	5	0.0191 sec	8.95 KB
Testcase 4	Medium	Hidden case	Success	5	0.0141 sec	8.92 KB
Testcase 5	Medium	Hidden case	Success	5	0.0153 sec	8.96 KB
Testcase 6	Medium	Hidden case	Wrong Answer	0	1.5096 sec	9.12 KB
Testcase 7	Medium	Hidden case	Success	5	0.1921 sec	9.14 KB
Testcase 8	Medium	Hidden case	Success	5	1.4517 sec	9.17 KB
Testcase 9	Hard	Hidden case	Success	10	0.3019 sec	9.26 KB
Testcase 10	Hard	Hidden case	Success	10	0.1191 sec	9.11 KB
Testcase 11	Hard	Hidden case	Success	10	0.9415 sec	9.18 KB
Testcase 12	Hard	Hidden case	Success	10	0.017 sec	8.94 KB
Testcase 13	Hard	Hidden case	Wrong Answer	0	1.5636 sec	8.99 KB
Testcase 14	Hard	Hidden case	Wrong Answer	0	1.0748 sec	9.14 KB
Testcase 15	Hard	Hidden case	Terminated due to timeout	0	2.0034 sec	8.77 KB

No Comments

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