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Test Name:

Mock Test

Taken On:

25 Nov 2024 17:20:30 IST

Time Taken:

18 min 29 sec/ 22 min

Invited by:

Ankush

Invited on:

25 Nov 2024 17:20:09 IST

Skills Score:

Tags Score:

Algorithms

105/105

Core CS

105/105

Easy

105/105

Problem Solving

105/105

Strings

105/105

problem-solving

105/105

100%

105/105

scored in **Mock Test** in 18 min 29 sec on 25 Nov 2024 17:20:30 IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Palindrome Index > Coding	17 min 39 sec	105/ 105	✓

QUESTION 1

✓

Correct Answer

Score 105

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 = "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++14**

```
1  /*
2   * Complete the 'palindromeIndex' function below.
3   *
4   * The function is expected to return an INTEGER.
5   * The function accepts STRING s as parameter.
6   */
7
8  int palindromeIndex(string s) {
9      for(int r = 0, l = s.size()-1; r<=l; ++r,--l)
10         {
11             if(s[r]!=s[l])
12                 {
13                     if(s[r]==s[l-1] && s[r+1]==s[l])
14                         {
15                             if(2<=l && s[r+1]==s[l-2])
```

```

16         {
17             return l;
18         } else {
19             return r;
20         }
21     } else if(s[r]==s[l-1]) {
22         return l;
23     } else {
24         return r;
25     }
26 }
27 }
28 return -1;
29 }

```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	✔ Success	0	0.0089 sec	8.95 KB
Testcase 2	Medium	Hidden case	✔ Success	5	0.0088 sec	8.83 KB
Testcase 3	Medium	Hidden case	✔ Success	5	0.0119 sec	8.81 KB
Testcase 4	Medium	Hidden case	✔ Success	5	0.0113 sec	8.84 KB
Testcase 5	Medium	Hidden case	✔ Success	5	0.0104 sec	8.81 KB
Testcase 6	Medium	Hidden case	✔ Success	5	0.0162 sec	8.87 KB
Testcase 7	Medium	Hidden case	✔ Success	5	0.0158 sec	8.93 KB
Testcase 8	Medium	Hidden case	✔ Success	5	0.0157 sec	9.09 KB
Testcase 9	Hard	Hidden case	✔ Success	10	0.0116 sec	8.91 KB
Testcase 10	Hard	Hidden case	✔ Success	10	0.0145 sec	8.98 KB
Testcase 11	Hard	Hidden case	✔ Success	10	0.0164 sec	8.87 KB
Testcase 12	Hard	Hidden case	✔ Success	10	0.0102 sec	8.8 KB
Testcase 13	Hard	Hidden case	✔ Success	10	0.0127 sec	8.98 KB
Testcase 14	Hard	Hidden case	✔ Success	10	0.0134 sec	8.92 KB
Testcase 15	Hard	Hidden case	✔ Success	10	0.0138 sec	8.98 KB
No Comments						