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Test Name:	**Mock Test**
Taken On:	28 Mar 2024 13:17:22 IST
Time Taken:	18 min 29 sec/ 22 min
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Invited by:	Ankush
Invited on:	28 Mar 2024 13:16:51 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 28 Mar 2024 13:17:22 IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Palindrome Index > **Coding**	18 min 13 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

$s = \text{"bcbc"}$

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: **PyPy3**

```
1
2  #
3  # Complete the 'palindromeIndex' function below.
4  #
5  # The function is expected to return an INTEGER.
6  # The function accepts STRING s as parameter.
7  #
8  def ispalindrome(s):
9      return s == s[::-1]
10
11 def palindromeIndex(s):
12     # Write your code here
```

```
    if ispalindrome(s):
        return -1
    for i in range(len(s)//2):
        if s[i] != s[len(s) - 1 - i]:
            return i if ispalindrome(s[:i] + s[i + 1:]) else len(s) - 1 - i
    return -1

```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	Success	0	0.275 sec	71.4 KB
Testcase 2	Medium	Hidden case	Success	5	0.2822 sec	71.6 KB
Testcase 3	Medium	Hidden case	Success	5	0.2431 sec	72.2 KB
Testcase 4	Medium	Hidden case	Success	5	0.2525 sec	71.4 KB
Testcase 5	Medium	Hidden case	Success	5	0.3187 sec	71.6 KB
Testcase 6	Medium	Hidden case	Success	5	0.29 sec	73.8 KB
Testcase 7	Medium	Hidden case	Success	5	0.3086 sec	73.5 KB
Testcase 8	Medium	Hidden case	Success	5	0.3067 sec	75.8 KB
Testcase 9	Hard	Hidden case	Success	10	0.2939 sec	73.3 KB
Testcase 10	Hard	Hidden case	Success	10	0.2831 sec	73.2 KB
Testcase 11	Hard	Hidden case	Success	10	0.2973 sec	74.6 KB
Testcase 12	Hard	Hidden case	Success	10	0.2621 sec	72.1 KB
Testcase 13	Hard	Hidden case	Success	10	0.2638 sec	73 KB
Testcase 14	Hard	Hidden case	Success	10	0.2583 sec	73 KB
Testcase 15	Hard	Hidden case	Success	10	0.2884 sec	73.9 KB

No Comments