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Test Name: Mock Test

Taken On: 17 Jun 2022 20:39:42 IST

Time Taken: 14 min 23 sec/ 30 min

Invited by: Ankush

Invited on: 17 Jun 2022 20:39:35 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 14 min
23 sec on 17 Jun 2022 20:39:42
IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Palindrome Index > Coding	11 min 40 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: **Java 8**

```
1 class Result {
2
3     /*
4      * Complete the 'palindromeIndex' function below.
5      *
6      * The function is expected to return an INTEGER.
7      * The function accepts STRING s as parameter.
8      */
9
10    public static int palindromeIndex(String s) {
11
12        StringBuilder order = new StringBuilder(s);
13        StringBuilder reverse = new StringBuilder(s);
14        reverse.reverse();
```

```

14 reverse.reverse();
15
16 if (order.toString().equals(reverse.toString())) {
17     return -1;
18 }
19
20
21 int newResult = -1;
22 String[] split = s.split("");
23 int start = 0;
24 int last = s.length() - 1;
25 while (start < last) {
26     if (split[last].equals(split[start])) {
27         last--;
28         start++;
29     } else {
30         if (newResult != -1) return -1;
31
32         order = new StringBuilder(s.substring(start + 1, last + 1));
33         reverse = new StringBuilder(order);
34         reverse.reverse();
35
36         if (order.toString().equals(reverse.toString())) {
37             newResult = start;
38             start++;
39         } else {
40             newResult = last;
41             last--;
42         }
43     }
44 }
45
46 }
47
48 return newResult;
49
50 }
51
52 }
53
54

```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	✔ Success	0	0.1583 sec	29.6 KB
Testcase 2	Medium	Hidden case	✔ Success	5	0.17 sec	29.8 KB
Testcase 3	Medium	Hidden case	✔ Success	5	0.1495 sec	29.8 KB
Testcase 4	Medium	Hidden case	✔ Success	5	0.1876 sec	29.5 KB
Testcase 5	Medium	Hidden case	✔ Success	5	0.1576 sec	29.4 KB
Testcase 6	Medium	Hidden case	✔ Success	5	0.3485 sec	42.2 KB
Testcase 7	Medium	Hidden case	✔ Success	5	0.2377 sec	43.1 KB
Testcase 8	Medium	Hidden case	✔ Success	5	0.3724 sec	56.4 KB
Testcase 9	Hard	Hidden case	✔ Success	10	0.468 sec	41.3 KB
Testcase 10	Hard	Hidden case	✔ Success	10	0.3464 sec	45.6 KB
Testcase 11	Hard	Hidden case	✔ Success	10	0.3533 sec	46.1 KB
Testcase 12	Hard	Hidden case	✔ Success	10	0.1333 sec	29.7 KB
Testcase 13	Hard	Hidden case	✔ Success	10	0.3316 sec	42 KB

Testcase 14	Hard	Hidden case	✔ Success	10	0.5644 sec	47.1 KB
Testcase 15	Hard	Hidden case	✔ Success	10	0.3138 sec	46.5 KB

No Comments

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