[CS 11] Prac 1l – Madam Webew

oj.dcs.upd.edu.ph/problem/cs11prac1l

Problem Statement

Madam Webew likes palindromes. A **palindrome** is a word or phrase whose letters are the same forwards and backwards. For example, "Race Car" is a palindrome.

Madam Webew has a new favorite phrase. She would like to make sure that this phrase is a palindrome. The only *operation* she can do to the phrase is to replace a letter with another letter.

What is the minimum number of times she needs to perform the operation in order to make sure that the phrase is a palindrome?

Notes:

- Note that letters cannot be replaced by spaces, and vice versa. Also, letters cannot be inserted or deleted.
- Note that for this problem, being a palindrome is case-insensitive, and spaces don't matter.
- Note that partial points will be given to programs that can handle special cases, e.g., inputs without spaces, and/or inputs without any uppercase letter.

Task Details

Your task is to implement a function called `min_ops_to_make_palindrome`. This function has a single `str` parameter denoting Madam Webew's favorite phrase.

The function must return a `int` denoting minimum number of times she needs to perform the operation in order to make sure that the phrase is a palindrome.

Restrictions

For this problem:

- Assignment is allowed.
- Recursion is allowed.
- Up to 66 function definitions are allowed.
- Comprehensions are **disallowed**.
- `range` is **disallowed**.
- The `abs` symbol is now allowed.

- Some methods of `str`s are **disallowed**, including `.split()`, `.splitlines()`, and `.replace()`. (If you don't know what these are, you may simply ignore this note.)
- The source code limit is `10001000`.

Example Calls

Example 1 Function Call

Copy

```
min_ops_to_make_palindrome('madam')
```

Example 1 Return Value

Copy

```
0
```

Example 2 Function Call

Copy

```
min_ops_to_make_palindrome('Webew')
```

Example 2 Return Value

Copy

```
0
```

Example 3 Function Call

Copy

```
min_ops_to_make_palindrome('Web')
```

Example 3 Return Value

Copy

```
1
```

Example 4 Function Call

Copy

```
min_ops_to_make_palindrome('Race Car')
```

Example 4 Return Value

Copy

```
0
```

Example 5 Function Call

Copy

```
min_ops_to_make_palindrome('  adam ')
```

Example 5 Return Value

Copy

```
2
```

Example 6 Function Call

Copy

```
min_ops_to_make_palindrome('A man a plan a canal Panama')
```

Example 6 Return Value

Copy

```
0
```

Hint

- If `s` is a `str`, then `s.lower()` is the same `str` converted to lowercase.

Constraints

- The function `min_ops_to_make_palindrome` will be called at most 1,0001,000 times.
- The argument is at most 2727 characters long and consists of letters and spaces only.

Scoring

- You get 100100 ❤️ points if you solve all test cases where:
  - There are no spaces and no uppercase letters.
  - The length is odd.
- You get 5050 ❤️ points if you solve all test cases where:
  - There are no spaces and no uppercase letters.
  - The length is even and nonzero.
- You get 5050 ❤️ points if you solve all test cases where:
  - There are no spaces and no uppercase letters.
  - The length is even.
- You get 3030 ❤️ points if you solve all test cases where:
  - There are no spaces and no uppercase letters.
- You get 8080 ❤️ points if you solve all test cases where:
  - There are no uppercase letters.
- You get 8080 ❤️ points if you solve all test cases where:
  - There are no spaces.
- You get 3030 ❤️ points if you solve all test cases.

Report an issue

Clarifications

No clarifications have been made at this time.