Ask a Question

Minimum Number of Moves to Make Palindrome

Try to solve the Minimum Number of Moves to Make Palindrome problem.

We'll cover the following

Statement

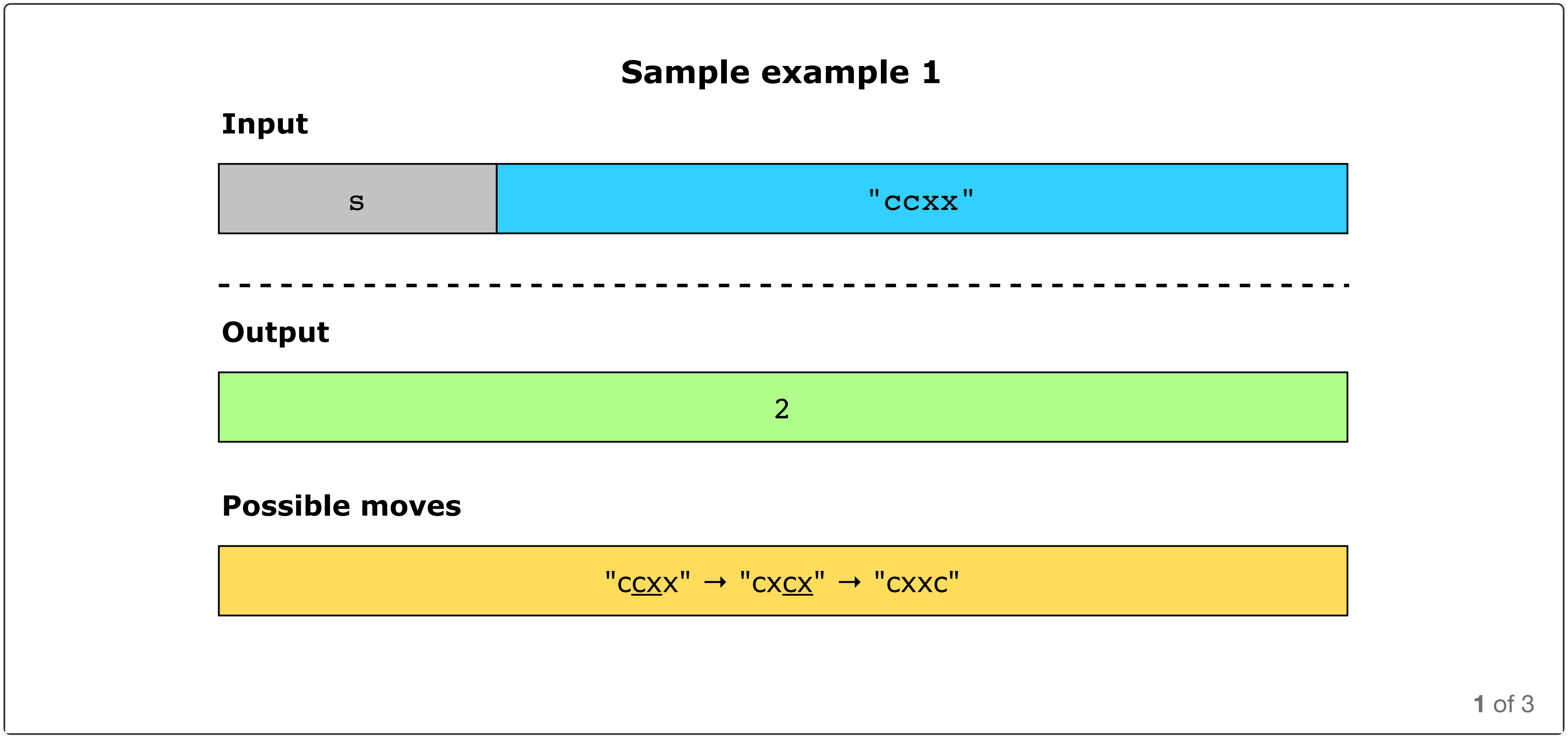
Given a string `s`, return the minimum number of moves required to transform `s` into a palindrome. In each move you can swap any two adjacent characters in `s`.

> **Note:** The input string is guaranteed to be convertible into a palindrome.

Constraints:

- $1 \leq$ `s.length` ≤ 2000
- `s` consists of only lowercase English letters.
- `s` is guaranteed to be converted into a palindrome in a finite number of moves.

Examples



Sample example 1

Input

s	"ccxx"

Output

2

Possible moves

"ccxx" → "cxcx" → "cxxc"

1 of 3

Understand the problem

Let’s take a moment to make sure you’ve correctly understood the problem. The quiz below helps you check it you’re solving the correct problem:

Minimum Number of Moves to Make Palindrome

1 What is the output if “ntiin” is given as an input?

A) 0

B) 1

C) 2

D) 3

Reset Quiz

Question 1 of 4
0 attempted

Submit Answer

Figure it out!

We have a game for you to play. Rearrange the logical building blocks to develop a clearer understanding of how to solve this problem.

Sequence - Vertical

Drag and drop the cards to rearrange them in the correct sequence.

0 After processing each pair of characters, move `i` forward and `j` backward and continue the process.

1 If no matching character is found, increment `moves` by the number of swaps needed to bring this unique character to the center.

2 Initialize `moves` with 0 to keep track of the number of swaps required.

3 Start iterating the string from the two ends of the array by initializing two pointers, `i` at the start and `j` at the end of the string. This loop continues while `i < j` .

4 Return `moves` .

5

If a matching character is found, swap it with its adjacent characters to its right until it reaches position `j` , and increment the `moves` counter for each swap.

6

Use an inner loop to search backward from `j` to find a character that matches `s[i]` .

Reset Show Solution Submit

Try it yourself

Implement your solution in the following coding playground.

Java

Files

Solution.java Saved

```
    public class Solution{
        public static int minMovesToMakePalindrome(String s) {
```

Run Submit