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## Min Chars to Add for Palindrome

Difficulty: Hard

Accuracy: 46.79%

Submissions: 76K+

Points: 8

Given a string  $s$ , the task is to find the minimum characters to be added at the front to make the string palindrome.

Note: A palindrome string is a sequence of characters that reads the same forward and backward.

### Examples:

**Input:**  $s = \text{"abc"}$ **Output:** 2**Explanation:** Add 'b' and 'c' at front of above string to make it palindrome :  
**"cbabc"****Input:**  $s = \text{"aacecaaaa"}$ **Output:** 2**Explanation:** Add 2 a's at front of above string to make it palindrome :  
**"aaaacecaaaa"**

### Constraints:

Java (1.8)

Average Time: 25m

Start Timer



```
1 // } Driver Code Ends
10 // User function Template for Java
11 class Solution {
12     public static int minChar(String s) {
13         int n = s.length();
14         String combined = s + "#" + new StringBuilder(s).reverse().toString();
15         int[] lps = computeLPSArray(combined);
16         return n - lps[combined.length() - 1];
17     }
18     private static int[] computeLPSArray(String str) {
19         int n = str.length();
20         int[] lps = new int[n];
21         int len = 0;
22         int i = 1;
23         while (i < n) {
24             if (str.charAt(i) == str.charAt(len)) {
25                 len++;
26                 lps[i] = len;
27                 i++;
28             } else {
29                 if (len != 0) {
30                     len = lps[len - 1];
31                 } else {
32                     lps[i] = 0;
33                     i++;
34                 }
35             }
36         }
37         return lps;
38     }
39 }
40 // } Driver Code Ends
```

[Custom Input](#)

Compile &amp; Run

Submit