DP-S020 (E050)

Solved Challenges 0/1



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Palindromic Partition

ID:11161 **Solved By 386 Users**

The program must accept a string **S** as the input. The program must print the minimum number of cuts required so that all the substring values in S are palindromes as the output.

Boundary Condition(s):

1 <= Length of S <= 1000

Input Format:

The first line contains the string S.

Output Format:

The first line contains the minimum number of cuts required so that all the substring values in S are palindromes.

Example Input/Output 1:

Input:

evening

Output:

2

Explanation:

Here the minimum number of cuts required is 2.

After two cuts in the string "evening", the palindromic substring values are "eve", "nin" and "g".

Example Input/Output 2:

Input:

rotator

Output:

Example Input/Output 3:

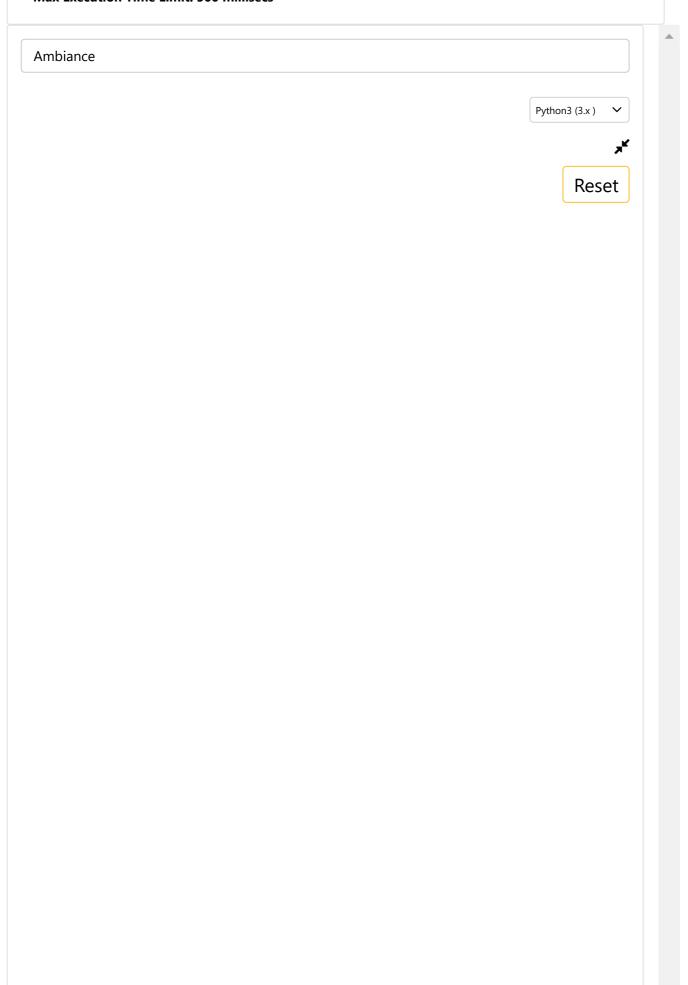
Input:

waitingnight

Output:

7

Max Execution Time Limit: 500 millisecs



```
def calcSplits(S,start,end,palin,splits):
 1
 2
 3
        if(palin[start][end]):
 4
            return 0
 5
 6
        if(splits[start][end]!=None):
 7
            return splits[start][end]
 8
 9
        minSplits=len(S)
        for index in range(start,end):
10
11
            currSplits = (1+calcSplits(S,start,index,palin,splits
12
                        +calcSplits(S,index+1,end,palin,splits))
13
            if(currSplits<minSplits):</pre>
14
                minSplits = currSplits
15
16
        splits[start][end] = minSplits
17
        return minSplits
18
19
20
   S = input().strip()
21
22
23
   if(S==S[::-1]):
24
        print(0)
25
        exit()
26
27
   N = len(S)
   palin = [[False for i in range(N)]for j in range(N)]
28
29
30
   for index in range(N):
        palin[index][index] = True
31
32
   for index in range(N-1):
33
        if(S[index] == S[index+1]):
34
            palin[index][index+1] = True
35
36
   for 1 in range(3,N+1):
37
38
        for index in range(N-l+1):
39
            if((S[index]==S[index+l-1])) and
                                 palin[index+1][index+1-2]):
40
41
                palin[index][index+l-1] = True
42
43
    splits = [[None for i in range(N)] for j in range(N)]
    print(calcSplits(S,0,N-1,palin,splits))
```

Custom test case has passed.

SUCCESS

,v_	You have executed a custor (Input/Output)" to execute	n test case. Kindly un-check "Run with a custom test case challenge test cases.	
	Save Run		
		st case (Input/Output)	
	Your input	evening	
	Your expected output	2	
4			•