



STUDENT REPORT

DETAILS

Name

D M ISAQ

Roll Number

KUB23CSE033

EXPERIMENT

Title

MAGIC STRING

Description

Eva has a string S containing lowercase English letters. She wants to transform this string into a Magic String, where all the characters in the string are the same. To do so, she can replace any letter in the string with another letter present in that string.

Your task is to help Eva find and return an integer value, representing the minimum number of steps required to form a Magic String. Return 0, if S is already a Magic String.

Input Specification:

input1: A string S , containing lowercase English letters.

Output Specification:

Return an integer value, representing the minimum number of steps required to form a Magic String. Return 0, if S is already a Magic String.

Sample Input:

aaabbbccdddd

Sample Output:

8

Source Code:

```
def min_steps_to_magic_string(S):  
    from collections import Counter  
  
    # Step 1: Count character frequencies  
    frequency = Counter(S)  
  
    # Step 2: Get the highest frequency  
    max_frequency = max(frequency.values())  
  
    # Step 3: Calculate the number of steps needed  
    steps = len(S) - max_frequency  
  
    return steps  
  
# Sample Input  
S = input()  
  
# Output  
result = min_steps_to_magic_string(S)  
print(result) # Output: 2
```

RESULT

5 / 5 Test Cases Passed | 100 %