Logo

STUDENT REPORT

DETAILS

Name

DIVYA D

Roll Number

3BR23CS046

EXPERIMENT

Title

SPECIAL STRING

Description

Alice has a string A consisting of lowercase English letters. Her friend gives her another string S and asks her to modify string A and replace its characters with the characters present in string S.

But, to achieve the above task, Alice must follow the below steps:

1. Choose a character from string S that has the minimum ASCII distance from the ith character in string A

Replace the ith character in string A with the chosen character in string S

Your task is to find and return an integer value, representing minimum total ASCII distance that is required to modify string A to the characters in string S. Return 0, if all the characters in string S are already present in string A

Sample Input:

abcd

xyz

Sample Output:

86

Source Code:

```
def min_ascii_distance(A, S):
    total_distance = 0
    found_all = True

    for char_a in A:
        # Find the minimum ASCII distance character in S
        min_distance = float('inf')
        for char_s in S:
            distance = abs(ord(char_a) - ord(char_s))
            if distance < min_distance:
                min_distance = distance

        # If the character from A is not in S, we add the minimum distance
        if min_distance != 0:
            found_all = False
            total_distance += min_distance

    return total_distance if not found_all else 0

# Sample Input
A = "abcd"
S = "xyz"

# Finding the minimum total ASCII distance
result = min_ascii_distance(A, S)
print(result)  # Output: 86
```

RESULT

1 / 5 Test Cases Passed | 20 %