STUDENT REPORT

DETAILS

Name

S SABA ANJUM

Roll Number

22BI24DS402-T

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):
    # Handle the case where either A or S is empty
    if not A or not S:
        return 0

    total_distance = 0

    # Iterate through each character in string A
    for char_A in A:
        min_distance = float('inf')

        # Find the character in S with minimum ASCII distance
        for char_S in S:
            distance = abs(ord(char_A) - ord(char_S))
            min_distance = min(min_distance, distance)

        # Add the minimum distance to the total
        total_distance += min_distance

    return total_distance

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

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

RESULT

1 / 5 Test Cases Passed | 20 %