Anagram

Two Strings are Said to be an Anagram if both the Strings have Same Characters ...

a = geeksforgeeks, b = forgeeksgeeks

Note

256 is taken as size because there exist only 256 standard character set

1. Take an integer array of 256 length
   CHAR[256];

2. initialize all element of CHAR to zero

3. Loop from 1st element of 'a' to Last element of 'a' and Count the characters in 'a' and consicutively remove it if found in 'b' as well

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for i elements in a to length of a - 1
    CHAR[a[i]]++;
    CHAR[b[i]]--;
```

At ASCII as an index incrementing the Count

At ASCII as an index decreasing the Count

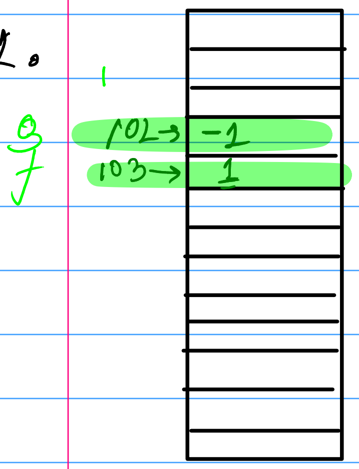
4. Iterating from 0 to 256 in CHAR array
   if any element found not zero
   the return false
   Otherwise
   return true.

Dry Run

a = geeksforgeeks, b = forgeeksgeeks

CHAR[256] = {0};

1.



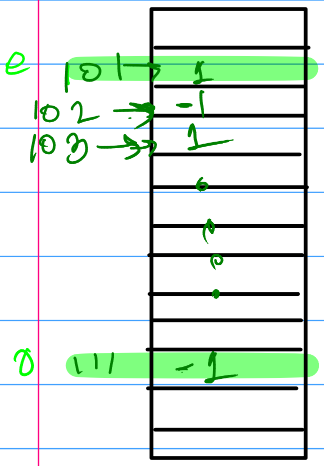
g → in ASCII 103

CHAR[a[0]]++

CHAR[b[0]]--

f → $\overset{u}{\text{in}}$ ASCII 102

2



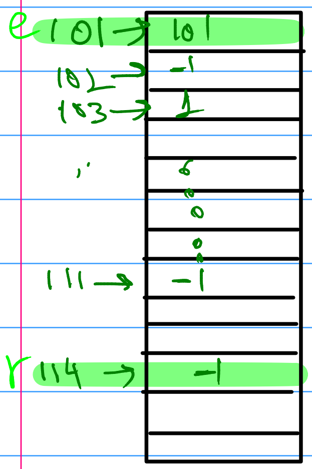
e → in ASCII 101

CHAR[a[1]]++

CHAR[b[1]]--

o → $\overset{u}{\text{in}}$ ASCII 111

3



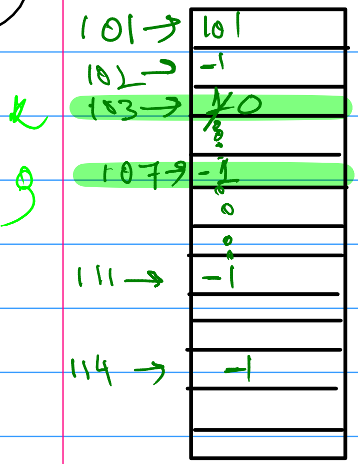
e → in ASCII 101

CHAR[a[0]]++

CHAR[b[0]]--

r → $\overset{u}{\text{in}}$ ASCII 114

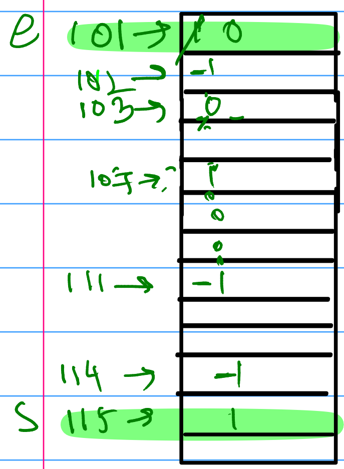
4



CHAR[a[0]]++ → k → in ASCII 103

CHAR[b[0]]-- → g → in ASCII 107

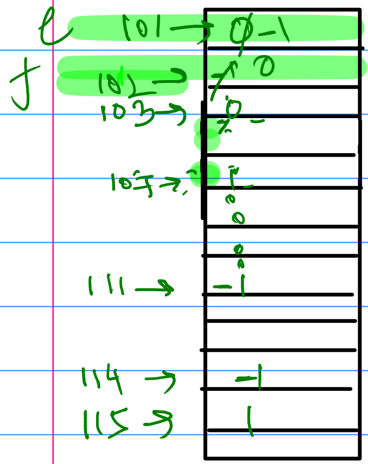
5



CHAR[a[0]]++ → s → in ASCII 115

CHAR[b[0]]-- → e → in ASCII 101

6



CHAR[a[0]]++ → f → in ASCII 102

CHAR[b[0]]-- → c → in ASCII 101

Other iterations are same like above
But it can be observed from above Dry run that
*CHAR[a[0]]++ is actually incrementing the occurance of character

Whereas,

☆ CHAR [b[0]] -- is Same decrementing the One which is increased

Now, it is a very Simple play of mind

☆ Let's Say a character 'e' Same in String S_1 and also in S_2
for Operation, CHAR[S1[pos]] ++ Will increased denoting a new character has been found.

☆ for Operation, CHAR[S2[POS]] -- Will decrease the same which was increased denoting it is found in S2 as well and can be removed from the array.

The final Conclusion Comes is if One which was incremented and then decremented by the other and final result turns out tobe zero then this totaly Concludes the balancing in both the Strings