Practice   Compete   Jobs   Rank   Leaderboard

Dashboard > Algorithms > Strings > Common Child

Badge Progress (Details)

Points: 126   Rank: 270086

Common Child 🔖

by naonaonao

| Problem | Submissions | Leaderboard | Discussions | Editorial 🔒 | Topics |

Given two strings a and b of equal length, what's the longest string (s) that can be constructed such that it is a child of both?

A string x is said to be a child of a string y if x can be formed by deleting 0 or more characters from y.

For example, `ABCD` and `ABDC` has two children with maximum length 3, `ABC` and `ABD`. Note that we will not consider `ABCD` as a common child because `C` doesn't occur before `D` in the second string.

Input format

Two strings, a and b, with a newline separating them.

Constraints

- $1 \le |a|, |b| \le 5000$

- All characters are upper cased and lie between ASCII values 65-90.

Output format

Print the length of the longest string s, such that s is a child of both a and b.

Sample Input 0

```
HARRY
SALLY
```

Sample Output 0

```
2
```

The longest possible string that is possible by deleting zero or more characters from $HARRY$ and $SALLY$ is AY, whose length is 2.

Sample Input 1

```
AA
BB
```

Sample Output 1

```
0
```

AA and BB has no characters in common and hence the output is 0.

Sample Input 2

```
SHINCHAN
NOHARAAA
```

Sample Output 2

```
3
```

The longest string that can be formed between $SHINCHAN$ and $NOHARAAA$ while maintaining the order is NHA.

Sample Input 3

```
ABCDEF
FBDAMN
```

Sample Output 3

```
2
```

BD is the longest child of the given strings.

f   🐦   in

Submissions:16197

Max Score:60
Difficulty: Medium

Rate This Challenge:

☆ ☆ ☆ ☆ ☆

Need Help?

Dynamic Programming Basics

More

| Current Buffer (saved locally, editable) ⑂ ⏱ | | Java 7 ⌄ | ⤢ | ⚙ |

```java
1  import java.io.*;
2  import java.util.*;
3  import java.text.*;
4  import java.math.*;
5  import java.util.regex.*;
6
7  public class Solution {
8
9      static int commonChild(String s1, String s2){
10         // Complete this function
11     }
12
13     public static void main(String[] args) {
14         Scanner in = new Scanner(System.in);
15         String s1 = in.next();
16         String s2 = in.next();
17         int result = commonChild(s1, s2);
18         System.out.println(result);
19     }
20 }
21
```

Line: 1 Col: 1

⬆ Upload Code as File   ☐ Test against custom input   Run Code   Submit Code

Join us on IRC at #hackerrank on freenode for hugs or bugs.