



Common Child ★

Problem

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A string is said to be a child of a another string if it can be formed by deleting 0 or more characters from the other string. Letters cannot be rearranged. Given two strings of equal length, what's the longest string that can be constructed such that it is a child of both?

Example

```
s1 = 'ABCD'
```

```
s2 = 'ABDC'
```

These strings have two children with maximum length 3, ABC and ABD. They can be formed by eliminating either the D or C from both strings. Return **3**.

Function Description

Complete the `commonChild` function in the editor below.

commonChild has the following parameter(s):

- string s1: a string
- string s2: another string

Returns

- int: the length of the longest string which is a common child of the input strings

Input Format

There are two lines, each with a string, **s1** and **s2**.

Constraints

- $1 \leq |s1|, |s2| \leq 5000$ where $|s|$ means "the length of s "
- All characters are upper case in the range `ascii[A-Z]`.

Sample Input

HARRY
SALLY

Sample Output

2

Explanation

The longest string that can be formed 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

Explanation 1

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

Sample Input 2

SHINCHAN
NOHARAAA

Sample Output 2

3

Explanation 2

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

Explanation 3

BD is the longest child of the given strings.

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JavaScript (Node.js)



```

23 function readLine() {
24     return inputString[currentLine++];
25 }
26
27 // Complete the commonChild function below.
28 function commonChild(s1, s2) {
29     let arr = [Array(s2.length + 1).fill(0)];
30     [...s1].forEach((v1, i) => {
31         arr[i + 1] = [0];
32         [...s2].forEach((v2, j) => {
33             arr[i + 1][j + 1] = v1 === v2 ?
34                 arr[i][j] + 1 : Math.max(arr[i + 1][j], arr[i][j + 1]);
35         });
36     });
37     return arr[s2.length][s1.length];
38 }
39
40 function main() {
41     const ws = fs.createWriteStream(process.env.OUTPUT_PATH);
42
43     const s1 = readLine();
44
45     const s2 = readLine();
46

```

Line: 37 Col: 38

☒ Upload Code as File

☐ Test against custom input

Run Code

Submit Code

Congratulations!

You have passed the sample test cases. Click the submit button to run your code against all the test cases.

☒ Sample Test case 0

Input (stdin)

[Download](#)
☒ Sample Test case 1

1 HARRY

2 **SALLY**

1	2
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1	2
---	---

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