

HW 2.1

Compile

```
shuqiny2@circinus-27 13:47:07 ~/hw/253P-HW2/src
$ ls
HW2_1.java  HW2_2.java  Solution.java
shuqiny2@circinus-27 13:47:09 ~/hw/253P-HW2/src
$ javac HW2_1.java
shuqiny2@circinus-27 13:47:22 ~/hw/253P-HW2/src
$ java HW2_1
```

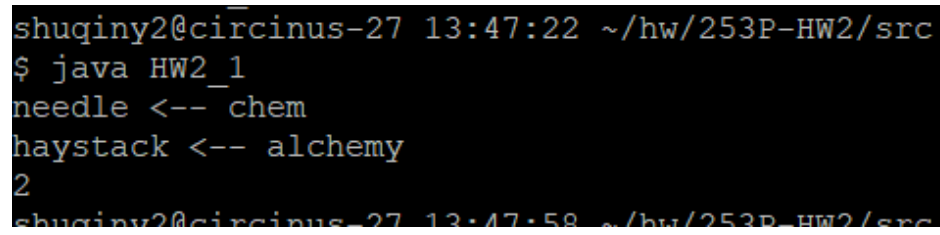
Test case 1 (the provided example from the assignment)

input:

```
needle <-- chem
haystack <-- alchemy
```

output:

2

A terminal window screenshot with a black background and white text. The prompt is 'shuginy2@circinus-27 13:47:22 ~/hw/253P-HW2/src'. The user enters '\$ java HW2_1'. The program outputs 'needle <-- chem', 'haystack <-- alchemy', and '2'. The prompt is then 'shuginy2@circinus-27 13:47:58 ~/hw/253P-HW2/src'.

```
shuginy2@circinus-27 13:47:22 ~/hw/253P-HW2/src
$ java HW2_1
needle <-- chem
haystack <-- alchemy
2
shuginy2@circinus-27 13:47:58 ~/hw/253P-HW2/src
```

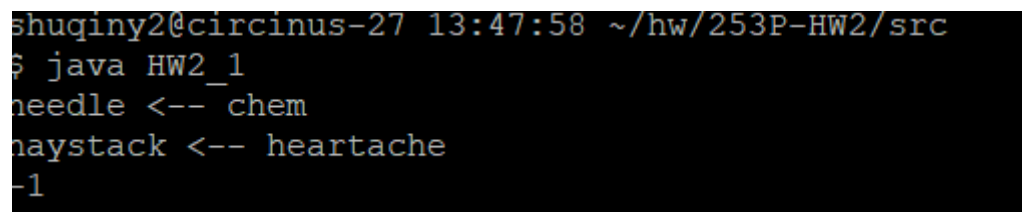
Test case 2(the provided example from the assignment)

input:

```
needle <-- chem
haystack <-- heartache
```

output:

-1

A terminal window screenshot with a black background and white text. The prompt is 'shuqiny2@circinus-27 13:47:58 ~/hw/253P-HW2/src'. The user enters '\$ java HW2_1'. The program outputs 'needle <-- chem', 'haystack <-- heartache', and '-1' on separate lines.

```
shuqiny2@circinus-27 13:47:58 ~/hw/253P-HW2/src
$ java HW2_1
needle <-- chem
haystack <-- heartache
-1
```

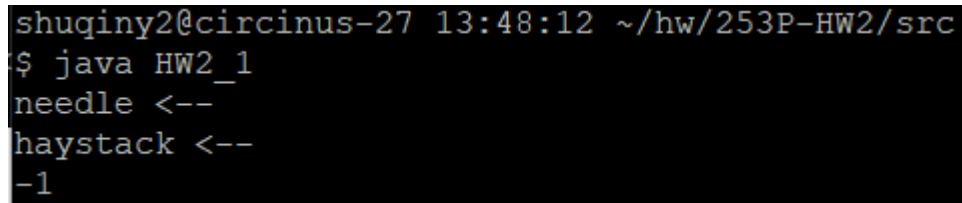
Test case 3

input:

```
needle <-- "" // empty String
haystack <-- "" // empty String
```

output:

-1

A terminal window screenshot with a black background and white text. The prompt is 'shuqiny2@circinus-27 13:48:12 ~/hw/253P-HW2/src'. The user enters '\$ java HW2_1'. The program outputs 'needle <--', 'haystack <--', and '-1' on separate lines.

```
shuqiny2@circinus-27 13:48:12 ~/hw/253P-HW2/src
$ java HW2_1
needle <--
haystack <--
-1
```

Test case 4

input:

```
needle <-- abc  
haystack <-- ab
```

output:

-1

```
shuqiny2@circinus-27 13:48:20 ~/hw/253P-HW2/src  
$ java HW2_1  
needle <-- abc  
haystack <-- ab  
-1  
shuqiny2@circinus-27 13:48:20 ~/hw/253P-HW2/src
```

Test case 5

input:

```
needle <-- ab
haystack <-- ababab
```

output:

0

```
shuqiny2@circinus-27 13:48:39 ~/hw/253P-HW2/src
$ java HW2_1
needle <-- ab
haystack <-- ababab
0
```

HW 2.2

Compile

```
shuqiny2@circinus-27 13:48:46 ~/hw/253P-HW2/src  
$ javac HW2_2.java  
shuqiny2@circinus-27 13:53:08 ~/hw/253P-HW2/src  
$ java HW2_2  
needle <== na
```

Test case 1 (the provided example from the assignment)

input:

```
needle <-- na
haystack <-- bananas
```

output:

2

```
shuginy2@circinus-27 13:53:08 ~/hw/253P-HW2/src
$ java HW2_2
needle <-- na
haystack <-- bananas
2
```

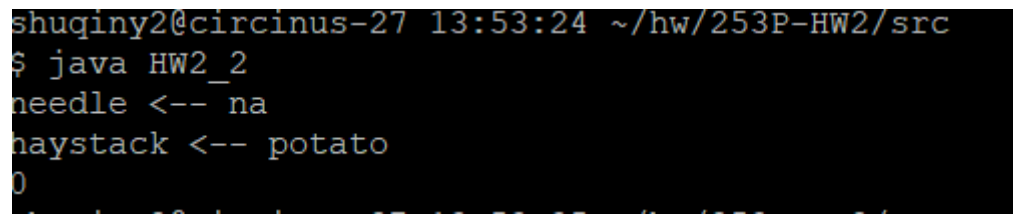

Test case 2 (the provided example from the assignment)

input:

```
needle <-- na
haystack <-- potato
```

output:

0

A terminal window screenshot with a black background and white text. The prompt is 'shuqiny2@circinus-27 13:53:24 ~/hw/253P-HW2/src'. The user enters '\$ java HW2_2'. The program outputs 'needle <-- na' and 'haystack <-- potato' on separate lines, followed by '0' on the next line.

```
shuqiny2@circinus-27 13:53:24 ~/hw/253P-HW2/src
$ java HW2_2
needle <-- na
haystack <-- potato
0
```

Test case 3

input:

```
needle <-- ""  
haystack <-- "" // Empty String
```

output:

-1

```
shuqiny2@circinus-27 14:12:08 ~/hw/hw2/253P-HW2/src  
$ java HW2_2  
needle <--  
haystack <--  
-1
```

Test case 4

input:

```
needle <-- aaa  
haystack <-- aa
```

output:

-1

```
shuginy2@circinus-27 14:12:22 ~/hw/hw2/253P-HW2/src  
$ java HW2_2  
needle <-- aaa  
haystack <-- aa  
-1
```

Test case 5

input:

```
needle <-- bab
haystack <-- abababab
```

output:

3

```
shuqiny2@circinus-27 14:12:32 ~/hw/hw2/253P-HW2/src
$ java HW2_2
needle <-- bab
haystack <-- ababababa
3
```

HW 2.3

Substitute by LeetCode # 1247, String related, medium

LeetCode

Explore

Problems

Mock

Contest

Discuss

Store

October LeetCode Challenge

Premium

+

🔔

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Description

Solution

Discuss (250)

Submissions

Success

Details

Runtime: 0 ms, faster than 100.00% of Java online submissions for Minimum Swaps to Make Strings Equal.

Memory Usage: 37.3 MB, less than 13.74% of Java online submissions for Minimum Swaps to Make Strings Equal.

Next challenges:

Score of Parentheses

Construct Target Array With Multiple Sums

Check if a String Can Break Another String

Show off your acceptance:

f

t

in

Time Submitted	Status	Runtime	Memory	Language
10/20/2020 15:36	Accepted	0 ms	37.3 MB	java
10/15/2020 02:25	Accepted	0 ms	37.4 MB	java

i

Java

Autocomplete

```
1 * class Solution {
2 *     public int minimumSwap(String s1, String s2) {
3 *         char[] chars1 = s1.toCharArray();
4 *         char[] chars2 = s2.toCharArray();
5 *
6 *         int xy = 0, yx = 0, res = 0;
7 *         for (int i = 0; i < chars1.length; i++) {
8 *             if(chars1[i] == 'x' && chars2[i] == 'y')
9 *                 xy++;
10 *             else if (chars1[i] == 'y' && chars2[i] == 'x')
11 *                 yx++;
12 *         }
13 *         res += xy / 2 + yx / 2; // a pair of xy or a pair of yx contributes 1 swap
14 *         xy %= 2;
15 *         yx %= 2;
16 *         if(xy == yx) {
17 *             res += (xy + yx); // a pair of (xy, yx) contributes 2 swaps
18 *             return res;
19 *         }
20 *         else return -1;
21 *     }
22 * }
23 * }
```

Your previous code was restored from your local storage. [Reset to default](#)

HW 2.4

Substitute by LeetCode # 481, string related, medium

LeetCode

Explore

Problems

Mock

Contest

Discuss

Store

October LeetCode Challenge

Premium

Description

Solution

Discuss (142)

Submissions

Success

Details

Runtime: 3 ms, faster than 74.79% of Java online submissions for Magical String.

Memory Usage: 38.3 MB, less than 5.04% of Java online submissions for Magical String.

Next challenges:

Paint House

Count Square Submatrices with All Ones

Move Sub-Tree of N-Ary Tree

Show off your acceptance:

Time Submitted	Status	Runtime	Memory	Language
10/20/2020 15:57	Accepted	3 ms	38.3 MB	java
10/20/2020 15:35	Accepted	3 ms	37.6 MB	java
10/15/2020 14:58	Accepted	3 ms	37.9 MB	java
10/15/2020 14:53	Runtime Error	N/A	N/A	java

Problems

Pick One

< Prev

481/1627

Next >

Console

Contribute i

Run Code

Submit

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```
class Solution {
    public int magicalString(int n) {
        if (n <= 0)
            return 0;

        int[] s = new int[n];
        s[0] = 1;

        int i = 0, j = 0, cnt = 0;
        int flag = 1;
        while (j < n) { // j moves faster than i
            if (s[i] == 1) {
                s[j] = flag;
                if (s[j] == 1)
                    cnt++;
                i++;
                j++;
            }
            else {
                s[j] = flag;
                if (s[j] == 1)
                    cnt++;
                if (j + 1 < n) {
                    s[j + 1] = s[j];
                    if (s[j + 1] == 1)
                        cnt++;
                }
                i++;
                j += 2;
            }
            if (flag == 1)
                flag = 2;
            else flag = 1;
        }
        return cnt;
    }
}
```

Your previous code was restored from your local storage. [Reset to default](#)