



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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Experiment-2

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Section/Group: 902/A

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Subject Name: Competitive Coding II

Subject Code: 20CSP-351

Aim: To demonstrate the concept of String Matching algorithms.

Problem1: Rotate String

The screenshot shows a coding problem interface with tabs for Description, Discussion (7), Solutions (1.9K), and Submissions. The problem title is '796. Rotate String' with a difficulty level of 'Easy'. It has 2.6K likes and 106 dislikes. A 'Companies' tag is present. The problem description states: 'Given two strings `s` and `goal`, return `true` if and only if `s` can become `goal` after some number of shifts on `s`. A shift on `s` consists of moving the leftmost character of `s` to the rightmost position. For example, if `s = "abcde"`, then it will be `"bcdea"` after one shift.' Two examples are provided: Example 1: Input: `s = "abcde", goal = "cdeab"`, Output: `true`; Example 2: Input: `s = "abcde", goal = "abcd"`, Output: `false`. Constraints are listed at the bottom: `1 <= s.length, goal.length <= 100` and `s` and `goal` consist of lowercase English letters.



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Code:-

```
class Solution {  
    public boolean rotateString(String s, String goal) {  
        String s1 = s.concat(s);  
        if(s1.contains(goal) && s.length()==goal.length()) return true;  
        return false;  
    }  
}
```

Output:-

A screenshot of a code execution environment. At the top, there are two tabs: 'Testcase' and 'Result', with 'Result' being the active tab. Below the tabs, the word 'Accepted' is displayed in green, followed by 'Runtime: 0 ms'. There are two test cases listed: 'Case 1' and 'Case 2', with 'Case 1' selected. Under the 'Input' section, there are two variables: 's =' with the value '"abcde"' and 'goal =' with the value '"cdeab"'. Under the 'Output' section, the value 'true' is shown. Under the 'Expected' section, the value 'true' is also shown, indicating that the test case passed.

Testcase Result

Accepted Runtime: 0 ms

• Case 1 • Case 2

Input

s =
"abcde"

goal =
"cdeab"

Output

true

Expected

true



Problem2: Repeated String match

Description

Discussion (9)

Solutions (736)

Submissions

🔒 Companies

Given two strings `a` and `b`, return the *minimum number of times you should repeat string a* so that string `b` is a substring of it. If it is impossible for `b` to be a substring of `a` after repeating it, return `-1`.

Notice: string `"abc"` repeated 0 times is `""`, repeated 1 time is `"abc"` and repeated 2 times is `"abcabc"`.

Example 1:

Input: `a = "abcd", b = "cdabcdab"`

Output: 3

Explanation: We return 3 because by repeating a three times `"abcdabcdabcd"`, `b` is a substring of it.

Example 2:

Input: `a = "a", b = "aa"`

Output: 2

Constraints:

- `1 <= a.length, b.length <= 104`
- `a` and `b` consist of lowercase English letters.



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Code:-

```
class Solution {
    public int repeatedStringMatch(String a, String b) {

        String copy = "";
        int count=0;
        while(copy.length()<b.length()){
            copy+=a;
            count++;
        }
        if(copy.indexOf(b)>=0)
            return count;
        if((copy+a).indexOf(b)>=0)
            return ++count;
        return -1;
    }
}
```

Output:-

The screenshot shows a code execution environment with a dark theme. At the top, there are two tabs: "Testcase" and "Result", with "Result" being the active tab. Below the tabs, the word "Accepted" is displayed in green, followed by "Runtime: 0 ms". There are two radio buttons for "Case 1" and "Case 2", with "Case 1" selected. Under the "Input" section, there are two input fields: "a =" with the value "abcd" and "b =" with the value "cdabcdab". Below the "Output" section, the value "3" is displayed. At the bottom, under the "Expected" section, the value "3" is also displayed.