

Experiment 2

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Section/Group: DM 714-A

Subject: Competitive Coding II

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Aim:

Strings

Problem 1: Rotate String

Given two strings *s* and *goal*, return true if and only if *s* can become *goal* after some number of shifts on *s*.

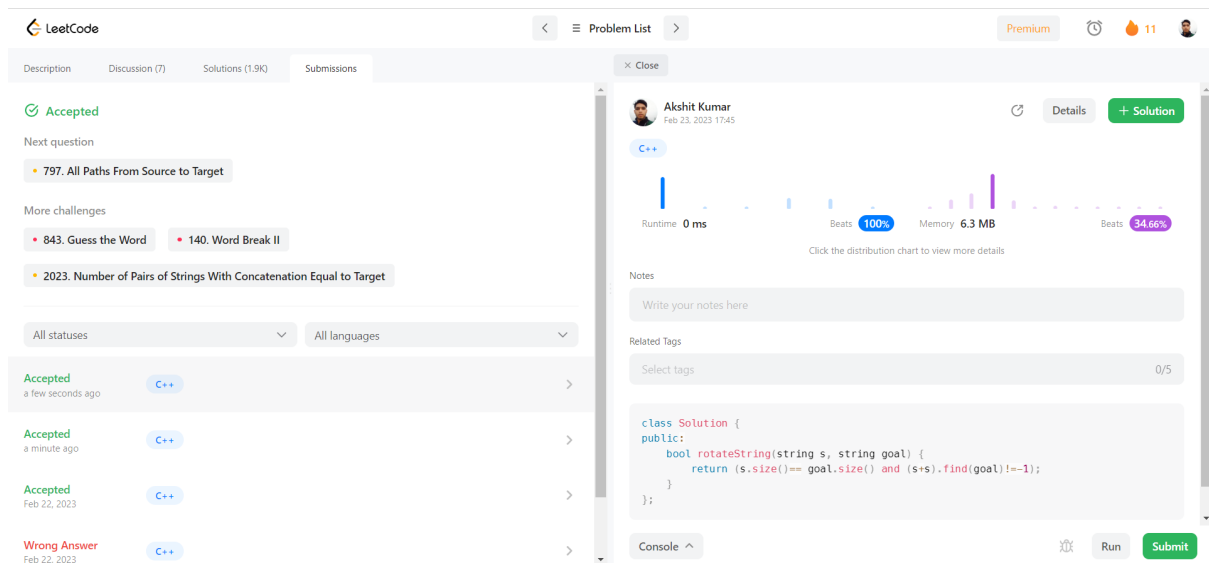
A shift on *s* consists of moving the leftmost character of *s* to the rightmost position.

For example, if *s* = "abcde", then it will be "bcdea" after one shift.

Code:

```
class Solution {  
public:  
    bool rotateString(string s, string goal) {  
        return (s.size()== goal.size() and (s+s).find(goal)!=-1);  
    }  
};
```

Output:



The screenshot shows a LeetCode submission interface. On the left, there's a list of submissions for problem 797, 'All Paths From Source to Target'. The top submission is 'Accepted' and was made 'a few seconds ago' using C++. Below it are other 'Accepted' submissions from 'a minute ago' and 'Feb 22, 2023', also in C++. At the bottom, there's a 'Wrong Answer' submission from 'Feb 22, 2023' in C++.

The main part of the screenshot shows the details of the 'Accepted' submission. It includes a performance chart showing 'Runtime 0 ms' and 'Memory 6.3 MB'. The 'Beats' section shows '100%' for runtime and '34.66%' for memory. There's a 'Notes' section with a placeholder 'Write your notes here'. Below that, there's a 'Related Tags' section with a placeholder 'Select tags'. The code editor shows the following C++ code:

```
class Solution {
public:
    bool rotateString(string s, string goal) {
        return (s.size() == goal.size() and (s+s).find(goal) != -1);
    }
};
```

At the bottom right, there are buttons for 'Run' and 'Submit'.

Problem 2: Find the Index of the First Occurrence in a String

Given two strings needle and a haystack, return the index of the first occurrence of a needle in a haystack, or -1 if the needle is not part of the haystack.

Code:

```
class Solution {
public:
    int strStr(string haystack, string needle) {
        int m = needle.length();
        int n = haystack.length();

        for (int windowStart = 0; windowStart <= n - m; windowStart++) {
            for (int i = 0; i < m; i++) {
                if (needle[i] != haystack[windowStart + i]) {
                    break;
                }
            }
        }
    }
};
```



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```
        if (l == m - 1) {  
            return windowStart;  
        }  
    }  
}  
  
return -1;  
}
```

Output:

The screenshot shows a LeetCode problem page for "29. Divide Two Integers". The status is "Accepted". The user "Akshit Kumar" submitted the solution on Feb 23, 2023, at 17:49. The performance metrics are: Runtime 2 ms, Beats 47.71%, Memory 6.1 MB, and Beats 95.24%. The solution is written in C++ and is as follows:

```
class Solution {  
public:  
    int strStr(string haystack, string needle) {  
        int m = needle.length();  
        int n = haystack.length();  
  
        for (int windowStart = 0; windowStart <= n - m; windowStart++) {
```

The page also includes a sidebar with "Next question" (29. Divide Two Integers), "More challenges" (214. Shortest Palindrome, 459. Repeated Substring Pattern), and filters for "All statuses" and "All languages".