Experiment1.2

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Subject Name: Competitive Programming **Subject Code:** 20CSP_351

1. Aim:

To understand the concept of string matching.

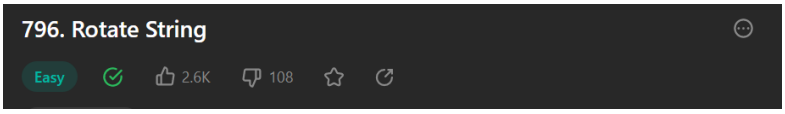
2. Objective:

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.

Question:



3. Code:

```
class Solution {
public:
bool rotateString(string s, string goal) { if(s.size() != goal.size()) return false;
if(s.size() == 0) return true;vector<int> candidateA;
for(int i = 0; i < s.size(); i++){if(s[i] == goal[0]){
candidateA.push_back(i);
}
}
```

```
for(int start : candidateA){bool isRotate = true;
for(int i = 0; i < s.size(); i++){ if(s[(start+i)%s.size()] != goal[i]){
isRotate = false;break;
}
}
if(isRotate){
cout<<"Saumyamani Bhardwaz_20BCS1682";
return true;
}
}
cout<<"Saumyamani Bhardwaz_20BCS1682";
return false;
}
};
```

4. Output:

Objective:

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

Question:

2.Find the Index of the First Occurrence in a String

Code:

```
class Solution {
public:
int strStr(string haystack, string needle)
{
int index=INT_MAX, j=0;
for(int i=0;i<haystack.length() && j<needle.length();i++)
{
if(haystack[i]==needle[j])
{
index=min(index,i);
j++;
} else {
if(index!=INT_MAX) i=index;
index=INT_MAX;
j=0;
}
}
cout<<"Saumyamani Bhardwaz_20BCS1682";
if(j==needle.length()) return index;
return -1;
}
};
```

Output:


Testcase
Result
Accepted
Runtime: 2 ms
Case 1
Case 2
Input
haystack =
"sadbutsad"
needle =
"sad"
Output
0
Expected
0
Stdout
Saumyamani Bhardwaz_20BCS1682