

Day-41

Leetcode 205 Isomorphic Strings

<https://leetcode.com/problems/isomorphic-strings/description/>

```
class Solution:
    def isIsomorphic(self, s: str, t: str) -> bool:
        map_s_to_t={}
        map_t_to_s={}

        for c1,c2 in zip(s,t):
            if c1 in map_s_to_t:
                if map_s_to_t[c1] !=c2:
                    return False
            else:
                map_s_to_t[c1]=c2

            if c2 in map_t_to_s:
                if map_t_to_s[c2]!=c1:
                    return False
            else:
                map_t_to_s[c2]=c1
        return True
```

TC –O(N)

SC- O(1)

Leetcode 796 Rotate String

<https://leetcode.com/problems/rotate-string/description/>

```
class Solution:
    def rotateString(self, s: str, goal: str) -> bool:
        if len(s) != len(goal):
            return False
        return goal in (s+s)
```

TC – O(n)

SC- $O(n)$

Leetcode 242 Valid Anagram

<https://leetcode.com/problems/valid-anagram/description/>

```
class Solution:
    def isAnagram(self, s: str, t: str) -> bool:
        if len(s) != len(t):
            return False

        count = [0] * 26 # Only lowercase English letters

        for ch in s:
            count[ord(ch) - ord('a')] += 1

        for ch in t:
            idx = ord(ch) - ord('a')
            count[idx] -= 1
            if count[idx] < 0: # Early exit optimization
                return False
        return True
```

TC- $O(N)$

SC- $O(1)$