Experiment-3.1

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Subject Name: Competitive Coding II **Subject Code: 20CSP- 351**

Aim – To demonstrate the concept of greedy approach

Objective-

- The objective is to build problem solving capability and to learn the basic concepts of data structures.
- The implementation of Find the difference which shows and brushes up the concept of Divide and
  Conquer can be solved through various approaches.
- The implementation of Assign Cookies using greedy Approach

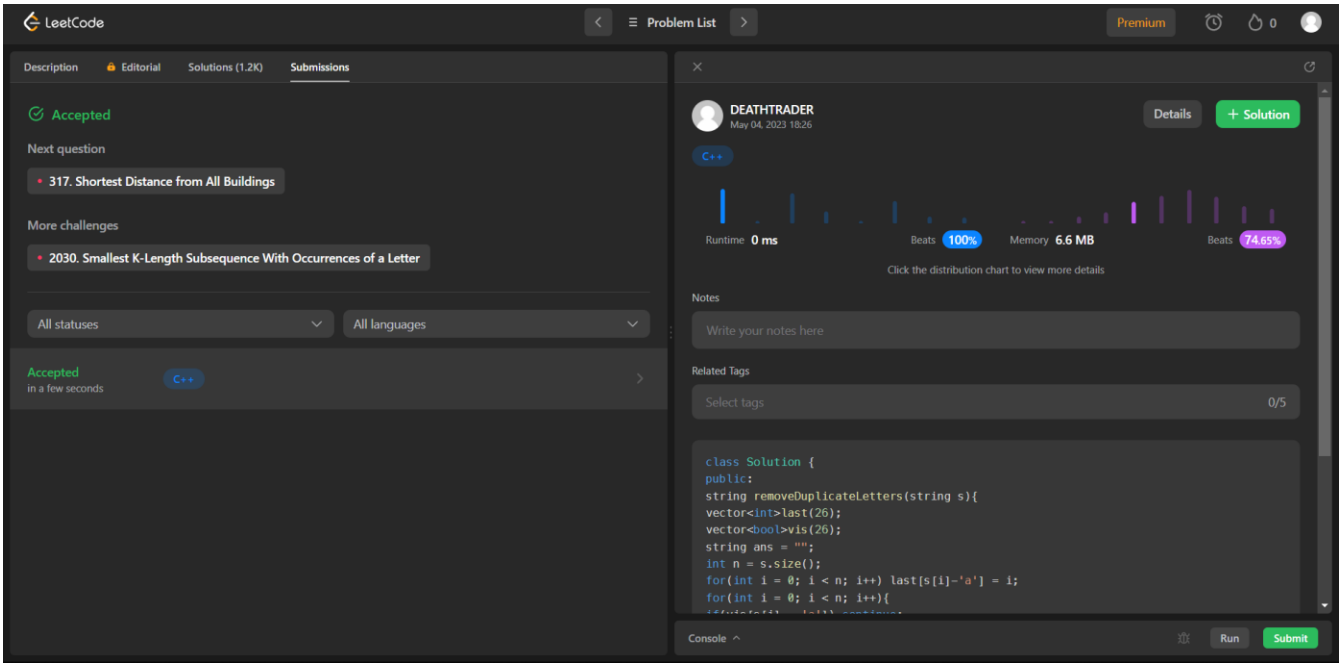
1) Remove Duplicate Letters
https://leetcode.com/problems/remove-duplicate-letters/

Code –

```
class Solution {
public:
string removeDuplicateLetters(string s){
vector<int>last(26);
vector<bool>vis(26);
string ans = "";
int n = s.size();
for(int i = 0; i < n; i++) last[s[i]-'a'] = i;
for(int i = 0; i < n; i++){
if(vis[s[i] - 'a']) continue;
while(!ans.empty() && ans.back() > s[i] &&
last[ans.back()-'a'] > i){
```

```
vis[ans.back() - 'a'] = false;
ans.pop_back();
}
ans.push_back(s[i]);
vis[s[i] - 'a'] = true;
}
return ans;
}};
```

Output -



2) Assign Cookies

https://leetcode.com/problems/assign-cookies/

Code -

```
class Solution {
public int findContentChildren(int[] g, int[] s) {
int n = g.length;int m=s.length;
Arrays.sort(g);
Arrays.sort(s);
int c=0;
for(int i=0;i<n;i++){
if(s[c] >= g[i] && c<m){
```

```
c++;
}
}
return c;}}
```

Output –