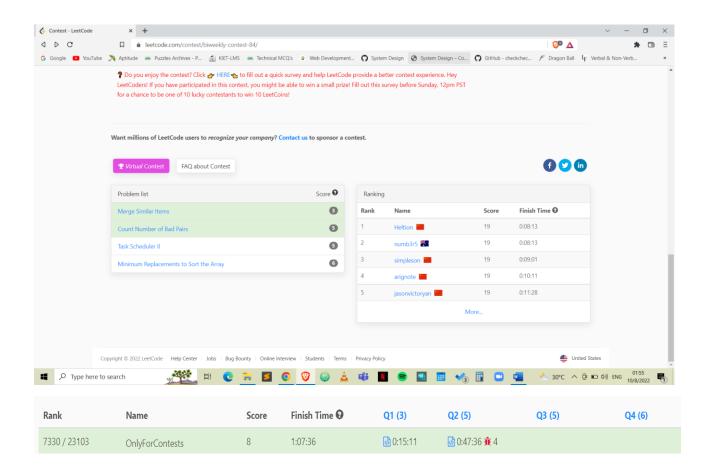
Name: Sagar Srivastava

Roll No: 1900290100127

<u>LeetCode Biweekly Contest 84</u> <u>Week 4</u>

In this contest, I solved 2/4 questions and got a rank of 7330 / 23103



The questions that I've solved are below:

- 1) Merge Similar Items
- 2) Count Number of Bad Pairs

1) Merge Similar Items

```
class Solution {
public:
  vector<vector<int>> mergeSimilarItems(vector<vector<int>>& items1,
vector<vector<int>>& items2) {
     unordered_map<int,int> a,b;
     for(auto x : items1){
       a[x[0]] = x[1];
     }
     for(auto x : items2){
       b[x[0]] = x[1];
     }
     vector<vector<int>> ans;
     for(auto x : a){
       if(b.find(x.first) != b.end()){
          int wt = a[x.first] + b[x.first];
          ans.push_back({x.first, wt});
       }
        else{
          ans.push_back({x.first, x.second});
       }
     }
```

```
unordered_map<int,int> c;
     for(auto x : ans){
        c[x[0]] = x[1];
     }
     for(auto x : a){
        if(c.find(x.first) == c.end()){
          ans.push_back({x.first,x.second});
        }
     }
     for(auto x : b){
        if(c.find(x.first) == c.end()){
          ans.push_back({x.first,x.second});
        }
     }
     sort(ans.begin(),ans.end());
     return ans;
  }
};
```

2) Count Number of Bad Pairs

```
class Solution {
public:
  long long countBadPairs(vector<int>& nums) {
    long long int ans = 0;
```

```
map<long long int,long long int> m;
  long long int cnt = 0;
  for(int i=0;i<nums.size();i++){</pre>
     if(m.find(nums[i]-i) != m.end()){
        cnt += m[nums[i]-i];
        m[nums[i]-i]++;
     }
     else{
        m[nums[i]-i]++;
     }
  }
  int n = nums.size();
  ans = ((long long int)n*((long long int)(n-1)))/2;
  //cout<<cnt<<endl;
   return (long long)(ans - cnt);
}
```

};