Day 49

Code : class Solution {

public:

static bool cmp(int &a,int &b){

return a>b;

}

bool solve(int i,int &n,vector<int> &arr,vector<int> &v,int &sum){

if(i==n){

int j;

for(j = 1; j < 4; j++){

if(v[j]!=v[j-1])break;

}

return (j==4);

}

for(int j = 0; j < 4; j++){

if(v[j]+arr[i]>sum){

continue;

}

v[j] += arr[i];

if(solve(i+1,n,arr,v,sum)){

return true;

}

v[j] -= arr[i];

}

return false;

}

bool makesquare(vector<int>& arr) {

if(arr.size()<=3)return false;

int sum = 0;

for(auto &i: arr){

sum += i;

}

if(sum%4)return false;

sum = (sum>>2);

sort(arr.begin(),arr.end(),cmp);

if(arr[0]>sum)return false;

vector<int> v(4,0);

int n = arr.size();

return solve(0,n,arr,v,sum);

}

};

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Time complexity – O(n)

Space complexity- O(n)

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A screenshot of a computer

Description automatically generated