ASK/VIEW DOUBT | SOLUTION | HINT | Your Code | Main Code | Code Pair | C++ (g++ 5)

Problem | Result

Longest subset zero sum

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Given an array consisting of positive and negative integers, find the length of the longest subarray whose sum is zero.

NOTE: You have to return the length of longest subarray .

Input Format :

Line 1 : Contains an integer N i.e. size of array

Line 2 : Contains N elements of the array, separated by spaces

Output Format

Line 1 : Length of longest subarray

Constraints:

0 <= N <= 10^8

Sample Input :

```
10
95 -97 -387 -435 -5 -70 897 127 23 284
```

Sample Output :

```
5
```

```cpp
#include<unordered_map>
using namespace std;

int lengthOfLongestSubsetWithZeroSum(int* arr, int n){
    if(n==1){
        if(arr[0]==0){
            return 1;
        }
    }
  unordered_map<int,int> s;
    int sum=0;
    int mlength=0;
    for(int i=0;i<n;i++){
        int length=0;
        sum+=arr[i];

        if(s.count(sum)>0){
            length = abs(s[sum]-i);
        }
        else{
            s[sum]=i;
        }
        //cout<<sum<<endl;
        if(length>mlength)
            mlength=length;
    }
    return mlength;

}
```

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