**SOLUTION**

class Solution {

public:

int subarraySum(vector<int>& nums, int k) {

map<int,int> mp;

int c=0, sc=0;

for(int i:nums){

sc+=i;

if(sc==k)

c+=1;

if(mp.find(sc-k)!=mp.end())

c+=mp[sc-k];

if(mp.find(sc)!=mp.end())

mp[sc]++;

else

mp[sc]=1;

}

return c;

}

};

**TIME COMPLEXITY: O(N)**

**SPACE COMPLEXITY: O(N)**