**SOLUTION**

class Solution {

public:

int findMaxLength(vector<int>& nums) {

int sum=0;

unordered\_map<int,int> m;

int lmax=0;

for(int i=0;i<nums.size();i++){

sum+=(nums[i]==0)?-1:1;

auto it=m.find(sum);

if(sum==0){

if(lmax<i+1)

lmax=i+1;

}

else if(it!=m.end()){

if(lmax<i-it->second)

lmax=i-it->second;

}

else if(it==m.end())

m.insert({sum,i});

} return lmax;

}

};

**TIME COMPLEXITY: O(N)**

**SPACE COMPLEXITY: O(N)**