

643. Maximum Average Subarray I

APPROCH -> SLIDING WINDOW;

->FIRST CALCULATE THE SUM EQUAL TO FIRST WINDOW SO WE CAN SLIDE THE WINDOW;

->NOW RUN A LOOP TILL ARRAY SIZE;

-> CALCULATE THE SIZE OF WINDOW IF IT IS IN RANGE CALCULATE AND UPDATE MAXI;

-> AFTER THE LOOP COMPLETED RETURN THE MAXI AVG VARIABLE;

```
class Solution {
public:
    double findMaxAverage(vector<int>& nums, int k) {
        double maxi=INT_MIN;
        double sum=0;

        for(int i=0;i<k;i++){
            sum+=nums[i];

        }
        maxi=max(sum,maxi);

        for(int i=1;i<nums.size();i++){
            int end=(i+k)-1;
            if(end<nums.size()){
                sum-=nums[i-1];
                sum+=nums[end];
                maxi=max(sum,maxi);
            }

        }
        double avg=maxi/k;
        return avg;
    }
};
```