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1: #include<iostream>
2: #include<climits>
3: #include<omp.h>
4: #include<vector>
5: using namespace std;
6:
7: void min_reduction(vector<int>& arr)
8: {
9:     int min_val=INT_MAX;
10:    #pragma omp parallel for reduction(min:min_val)
11:    for(int i=0;i<arr.size();i++)
12:    {
13:        if(arr[i]<min_val)
14:            min_val=arr[i];
15:    }
16:    cout<<"\nMinimum Value: "<<min_val;
17: }
18:
19: void max_reduction(vector<int>& arr)
20: {
21:     int max_val=INT_MIN;
22:    #pragma omp parallel for reduction(max:max_val)
23:    for(int i=0;i<arr.size();i++)
24:    {
25:        if(arr[i]>max_val)
26:            max_val=arr[i];
27:    }
28:    cout<<"\nMaximum Value: "<<max_val;
29: }
30:
31: void sum_reduction(vector<int>& arr)
32: {
33:     int sum=0;
34:    #pragma omp parallel for reduction(+:sum)
35:    for(int i=0;i<arr.size();i++)
36:    {
37:        sum+=arr[i];
38:    }
39:    cout<<"\nSum Value: "<<sum;
40: }
41:
42: void avg_reduction(vector<int>& arr)
43: {
44:     int sum=0;
45:    #pragma omp parallel for reduction(+:sum)
46:    for(int i=0;i<arr.size();i++)
47:    {
48:        sum+=arr[i];
49:    }
50:    cout<<"\nAvg Value: "<<(double)sum/arr.size();
51: }
52: int main()
53: {
54:     int n;
55:     cout<<"\nEnter the total no of elements: ";

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56:     cin>>n;
57:     vector<int> arr(n);
58:     cout<<"\nEnter the elements: ";
59:     for(int i=0;i<n;i++)
60:     {
61:         cin>>arr[i];
62:     }
63:     min_reduction(arr);
64:     max_reduction(arr);
65:     sum_reduction(arr);
66:     avg_reduction(arr);
67:     return 0;
68: }
```