Hpc 3 min max alg

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#include <iostream>
#include <vector>
#include <omp.h>
#include <climits>

using namespace std;

void min_max_sum_avg_reduction(vector<int>& arr) {
  int min_value = INT_MAX;
  int max_value = INT_MIN;
  int sum = 0;

  #pragma omp parallel for reduction(min: min_value) reduction(max: max_value)
reduction(+: sum)
  for (int i = 0; i < arr.size(); i++) {
      if (arr[i] < min_value) {
          min_value = arr[i];
      }
      if (arr[i] > max_value) {
          max_value = arr[i];
      }
      sum += arr[i];
  }

  double average = (double)sum / arr.size();

  cout << "Minimum value: " << min_value << endl;
  cout << "Maximum value: " << max_value << endl;
  cout << "Sum: " << sum << endl;
  cout << "Average: " << average << endl;
}

int main() {
  vector<int> arr = {5, 2, 9, 1, 7, 6, 8, 3, 4};
  min_max_sum_avg_reduction(arr);
  return 0;
}
```

[10:58 PM, 4/23/2024] .: