**Assignment No-3**

#include<iostream> #include<omp.h> using namespace std; int minval(int arr[], int n){ int minval = arr[0];

#pragma omp parallel for reduction(min : minval)

for(int i = 0; i < n; i++){ if(arr[i] < minval) minval = arr[i];

}

return minval;

}

int maxval(int arr[], int n){ int maxval = arr[0];

#pragma omp parallel for reduction(max : maxval)

for(int i = 0; i < n; i++){ if(arr[i] > maxval) maxval = arr[i];

}

return maxval;

}

int sum(int arr[], int n){ int sum = 0;

#pragma omp parallel for reduction(+ : sum)

for(int i = 0; i < n; i++){ sum += arr[i];

}

return sum;

}

int average(int arr[], int n){ return (double)sum(arr, n) / n;

}

int main(){ int n = 5; int arr[] = {1,2,3,4,5}; cout << "The minimum value is: " << minval(arr, n) << '\n'; cout << "The maximum value is: " << maxval(arr, n) << '\n'; cout << "The summation is: " << sum(arr, n) << '\n'; cout << "The average is: " << average(arr, n) << '\n'; return 0;

}

**Output:**

**The minimum value is: 1**

**The maximum value is: 5**

**The summation is: 15**

**The average is: 3**