

Question#1

Declare 2 integer matrices of size 100x100 and initialise them with random values between 1 and 100. Declare another integer matrix “sum” of the same size, which will hold the result when adding the 2 initial matrices. Perform the addition operations by using OpenMP constructs/clauses/directives and the result should be saved in the “sum” matrix.

Finally, output the contents of both matrices and the contents of the sum matrix.

Question#2

Write a program to find the maximum value in a large integer array of size 10000, where the values in the array are randomly generated between 1 and 100. Use OpenMP to parallelize the computation of finding the maximum value. Finally, output the maximum value and the index at which it occurs.

Question#3

Write a program to sort a large integer array of size 10000, where the values in the array are randomly generated between 1 and 100. Use OpenMP to parallelize the computation of sorting the array. Finally, output the sorted array.