

OpenMP Independent In-Class Coursework – The Game of Life

The aim of this assignment is to write a parallel version of Conway's Game of Life using OpenMP.

You can take as a starting point the serial code provided to you. You may modify this code and improve it in order to improve its efficiency, in particular, you should use OpenMP to accelerate its execution.

You should make sure that your code compiles, and that it works correctly at all times. You should also instrument and report the run times for your local system. Before the main, add as comments the following information: Your CID, your email, compiler used, operating system, the number of logical processors of your computer, the serial execution time, and parallel execution time for one run (100 steps, 100x100 case).

You should document your code and explain why you made the parallelisation choices you made. Explain briefly in the code why you use each pragma and its options. If you make changes to the original code, explain briefly why these changes improve performance.

Bonus Points: You can also hand in a short analysis of the performance of your code.

The assignment is individual and is to be uploaded to GitHub at 12:15 on Feb 21st 2020.

Happy Coding.