HPC / Parallel Processing- 2021
Assignment 3 – OpenMP

Matrix puzzle

Write a parallel C program using OpenMP such that :

Given a matrix where every element is either 'O' or 'X', replace 'O' with 'X' if surrounded by 'X'. A 'O' (or a set of 'O') is considered to be surrounded by 'X' if there are 'X' at locations just left and just right of it.

O's at the edges will not be replaced

You should handle invalid input.

Sample input :

6 5

X	O	X	X	X
X	O	X	O	X
O	X	O	O	X
X	X	X	X	X
X	O	O	X	X
O	X	O	X	O

Sample output :

X	X	X	X	X
X	X	X	X	X
O	X	O	O	X
X	X	X	X	X
X	O	O	X	X
O	X	X	X	O

Deadline & Submission:

1. The assignment is in groups of maximum 2.
2. Code must be in C and openMP & you must run it before sending.
3. Cheating could lead to serious consequences.
4. Late submission is not allowed.
5. Deadline: Wed 2/6/2021 11:59 PM