Operating Systems, Fall 2020 Time: TBD

Multi-threading

Instructions: Do not copy material from other sources, if it is necessary, then provide the references. Plagiarized assignment will get negative marks, and can be called for DC action.

You need to add the two arrays using multi threading. The input file named "input.txt" contains two columns. Each column represent a separate array. The main program must create threads equal to the number of elements (number of rows in the text file) in an array. Each thread should add two numbers and store the result in a shared areas. The main program should save the result in "result.txt" file.

Inputs

You will be provided with a file named **input.txt**, This will contain two arrays to be added. The result should be saved into **result.txt** by your program.

General Instruction

- 1. Account for extreme cases as well.
- 2. Make sure to use '--std=c++11' to maintain compatibility.
- 3. Memory leaks will loss marks
- 4. Compilations errors will loss marks.
- 5. Proper indentation and comments are necessary

Submission: The submission should contain only following three things. If there is one missing then the assignment will be given 0 marks. Additional things will also be penalized.

- 1. Assign-2.cpp the code of the assignment
- 2. input.txt
- 3. Makefile which makes executing make command in the respective directory compile the code into an executable. After executing make an executable should be created named assign-2.o. Executing that executable should generate all the respective output files.

Contact the TA or myself, for more help and clarification. Email TA: Shehroz Ali: L176334@lhr.nu.edu.pk