MIIC1225 Operating Systems

MII MAHANAKORN Institute of Innovation

LAB Assignment Week #4

Topic: Multithreaded programming

Name/ID of paticipant(s)

Instructions:

- You will be working in a group of two. Choosing your own team.
- You are allowed to discuss freely within your group. Avoiding seeking solution from other groups.
- Two computers are provided per group.
- Turn in the result by the end of class period.

Activity 1: Implementation of data parallelism using multithreaded programing

- Run lab3_1.cpp (Linux) and lab3_2.cpp (Windows)
- Observe the difference and similarity between implemenation on Windows and Linux

Activity 2: Implementation of task parallelism using multithreaded programming

- You modify lab3_1.cpp or lab3_2.cpp (your choice) into a new program that forks three threads using three separated thread functions instead of shared thread functions as in the original examples. At this point, you will be required to show only “Running from thread A” (or B, C) from each thread.
- Take out the statements used in the previous lab assignment (Activity 2) and apply them into the program you just created.
    - Your program should function in the same way as the one implemented using three processes.