Programming Assignment 2 Due Date: Oct 24, 2014 Weight: 9% of your grade

## **Specific Submission Guidelines:**

- 1. Please submit your assignment as *username*.zip
- 2. Root directory should include OpenMP, MPI, and OpenMP\_MPI (for extra point only) directories. Folder name should be as indicated above.
- 3. Each directory must contain a Makefile and the source files (e.g. OpenMP.c, MPI.c, and OpenMP MPI.c)
- 4. Name of the executable file (after running make command), should be as same as \*.c file (e.g. for OpenMP.c file, the executable -o file should be named as OpenMP)
- 5. For each program, when <-t problem size> arguments are passed, it should print out the results and execution time. For example, when running ./OpenMP -t 100 it should print out the sorted result for problem size 100 on standard output along with execution time.
- 6. Submit your report as username.pdf.

7. In your report, please include execution time for the following cases.

Program	Number of cores	Problem size
OpenMP	1 node 2 task-per-node	100,000
OpenMP	1 node 2 task-per-node	1,000,000
OpenMP	1 node 8 task-per-node	1,000,000
MPI	1 node 2 task-per-node	100,000
MPI	1 node 2 task-per-node	1,000,000
MPI	2 node 8 task-per-node	1,000,000
OpenMP_MPI	1 node 2 task-per-node	100,000
OpenMP_MPI	1 node 2 task-per-node	1,000,000
OpenMP_MPI	2 node 8 task-per-node	1,000,000

You should also include other experiment cases in your report.

*Note: username* in this context is your UB username, and the other file names should be followed exactly as stated.