

## COMP 322: Fundamentals of Parallel Programming (Spring 2014)

Instructor: Vivek Sarkar

Worksheet 8: due at end of class today

Name: \_\_\_\_\_

Netid: \_\_\_\_\_

*Honor Code Policy: You are free to discuss all aspects of in-class worksheets with your other classmates, the teaching assistants and the professor during the class. You can work in a group and write down the solution that you obtained as a group. If you use any material from external sources, you must provide proper attribution.*

### WordCount using MapReduce

1. Download the WordCount.java and words.txt files.
2. Run the WordCount program sequentially with the following arguments to specify 1 map task and 1 reduce task:  
words.txt 1 1
3. Write the timing and number of words from this run
  
4. Run the WordCount program in parallel with the following arguments to specify 4 map tasks and 4 reduce tasks:  
words.txt 4 4
5. Write the timing and number of words from this run
  
6. Summarize your observations. Did both runs produce the same answer? Which was faster? If time permits, experiments with different numbers for map tasks and reduce tasks.