

CSCI 3366 (Parallel and Distributed Programming), Fall 2019

Homework 00

Credit: 10 points.

1 Reading

Review the presentations Dr. Lewis used for his guest lectures (linked from the “lecture topics and assignment” page).

2 Problems

Answer the following questions. You can either do this with a simple e-mail (answers in the body), or if you prefer to word-process your answers, send me the result as an attachment.

(Don’t stress too much about providing complete and thorough answers; the point of this assignment is for you to reflect a bit on those three guest lectures.)

1. (3 points) What are the main problems that can occur in code when doing shared-memory parallelism?
2. (3 points) Dr. Lewis talked about at several approaches to getting around one of those problems List three of them.
3. (2 points) Describe the running example used in class to illustrate one of the problems and the solutions to it.
4. (2 points) Which of the solutions presented was fastest? Why was that?

3 Honor Code Statement

Include the Honor Code pledge or just the word “pledged”, plus *at least one of the following* about collaboration and help (as many as apply).¹ Text *in italics* is explanatory or something for you to fill in. For programming assignments, this should go in the body of the e-mail or in a plain-text file `honor-code.txt` (no word-processor files please).

- This assignment is entirely my own work. (*Here, “entirely my own work” means that it’s your own work except for anything you got from the assignment itself — some programming assignments include “starter code”, for example — or from the course Web site. In particular, for programming assignments you can copy freely from anything on the “sample programs page”.*)
- I worked with *names of other students* on this assignment.
- I got help with this assignment from *source of help — ACM tutoring, another student in the course, the instructor, etc.* (*Here, “help” means significant help, beyond a little assistance with tools or compiler errors.*)

¹ Credit where credit is due: I based the wording of this list on a posting to a SIGCSE mailing list. SIGCSE is the ACM’s Special Interest Group on CS Education.

- I got help from *outside source* — a book other than the textbook (give title and author), a Web site (give its URL), etc.. (Here too, you only need to mention significant help — you don't need to tell me that you looked up an error message on the Web, but if you found an algorithm or a code sketch, tell me about that.)
- I provided help to *names of students* on this assignment. (And here too, you only need to tell me about significant help.)

4 Essay

Include a brief essay (a sentence or two is fine, though you can write as much as you like) telling me what about the assignment you found interesting, difficult, or otherwise noteworthy. For programming assignments, it should go in the body of the e-mail or in a plain-text file `essay.txt` (no word-processor files please).