Daniel Ty

TCSS 422

Assignment 2 Written Report

1. Describe the trade-off for adjusting the size of the bounded buffer for the program.

What do you observe when testing the program using a small bounded buffer size?

What do you observe when testing the program using a large bounded buffer size?

What bounded buffer size appears best for fastest program execution on your computer and why?

In general, the larger the buffer size the faster the program executed on my computer, except past 1000. At numbers much greater than 1000 (I tested 5000 and 10000), the program executed slower. I would estimate that the best bounded buffer size for fast program execution is about 1000 for my computer, just based off of testing.

2. Provide your computer or virtual machine specs used to answer question #1.

Include the following:

a. Processor name (check with lscpu, please identify type such as Intel(R) Core(TM) i7-1234HQ CPU @ 9.99GHz)

AMD Ryzen 5 3600 6-Core Processor

b. Available number of processors cores (check with lscpu)

4 cores

c. Available memory (check with free -m)

3066 mebibytes

3. If your program is not working entirely, please provide a detailed description of what is working based on the rubric requirements, and what is NOT working. This description will be used to grant partial credit in the case that not all elements are working.

n/a

4. Describe how you've tested your program for deadlock.

To test for deadlock, I did as recommended by the assignment doc and tested the program with a low bounded buffer size, such as 2. I ran the program for multiple n values checking if the program froze or had the wrong output.

5. <OPTIONAL> Detailed description of novel extra credit feature(s).

n/a