**Metropolitan State University**

**ICS 462-01 Operating Systems**

**Programming Assignment 2**

**Observations**

On some runs, the sum’s initial value of 100 is overwritten (lost) by the producer’s thread with the for-loop’s iteration index. In that case, the final sum output is smaller than 100.

On other runs, the sum’s initial value of 100 persists and is used in the summation computation. In those cases, the final sum output is greater than 100.

This indicates that one of the two threads either reads the shared resource first and then performs its computation (consumer) or writes to the shared resource, overwriting the initial data there (producer).

I learned that when threads start their execution via the start() method call, a thread immediately begins execution and the return from that method call is also immediate. I never worked with threads previously, so I did not expect to see this, but now I have a better understanding of how they work.

This assignment took me roughly 4 hours to complete.