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<center>Project 3 Commentary</center>

1. I ran this program on a MacBook Pro that has an Intel Core i5 processor.

2. I used the macOS Ventura operating system.

3. I used VS Code to compile the program.

4. Include, in your writeup, the pieces of code where you implemented the mutexes

5. Tell us what you discovered by doing this:

    1. Does the non-mutex way of doing this *ever* work? If so, how often? Yes, but only if NUMN is small enough, the program will run without any errors.

    2. Does changing NUMN make any difference in the failure percentage? Yes, the lower the number the less likely there to be errors and the reverse is true for higher numbers. When NUMN < approx. 5000, the percentage of mutex errors is almost always 0. However, there is always some randomness to the success rate.

    3. Is there a difference in elapsed execution time between mutex and non-mutex? Why do you suppose this is? (Ignore the very large elapsed times -- these are a result of the TIMEOUT being used up.) Yes, the use of mutexes adds overhead to the code and when locks occur it causes small pauses in the code which can add up quickly the more items there are in the stack