**Concurrency Assignment Software Development Plan**

**Assignment Description**

Implement a parallel array sum and compare performance with single thread sum. This is not an easy assignment – just do as much as you can and turn in what you have for partial credit.

Make an array of 200 million random numbers between 1 and 10. Compute the sum in parallel using multiple threads. Then compute the sum with only one thread and display the sum and times for both cases.

**Development Plan**

1. Create method that will generate array of 200 million random numbers between 1 and 10.
2. Write unit test to test this method.
3. Create method that will compute the sum of the above array.
4. Write unit test for this method.
5. Implement timers for this method.
6. Add thread functionality to application. Implement serial thread.
7. Make application multithreaded.
8. Add thread synchronization to compute sum in parallel.