Cpt S 411 Assignment Cover Sheet

(To be turned in along with each homework and program project submission)

Assignment # 1

For individual assignments:

    Student name (Last, First): Young, Nolen

For team projects:

    List of all students (Last, First):

List of collaborative personnel (excluding team participants):

I[1] certify that I have listed above all the sources that I consulted regarding this assignment, and that I have not received or given any assistance that is contrary to the letter or the spirit of the collaboration guidelines for this assignment. I also certify that I have not referred to online solutions that may be available on the web or sought the help of other students outside the class, in preparing my solution. I attest that the solution is my own and if evidence is found to the contrary, I understand that I will be subject to the academic dishonesty policy as outlined in the course syllabus.

Please print your names.
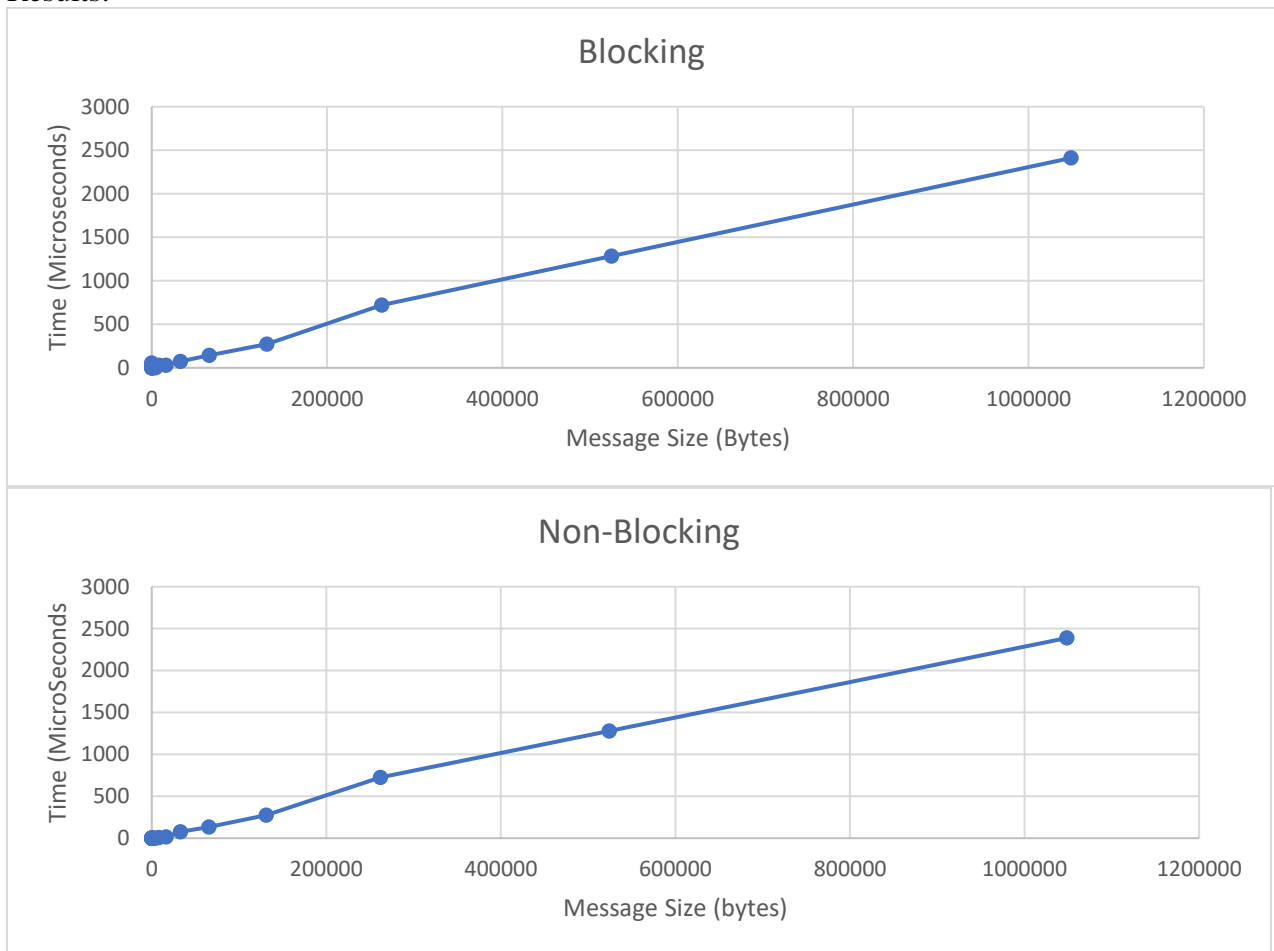
Nolen Kelly Young

Assignment Project Participant(s):

Today's Date: 9-17-19
Nolen Young

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[1] If you worked as a team, then the word "I" includes yourself and your team members.

Results:

Buffer Size Analysis:
The data would suggest that the network buffer size is somewhere around but most likely under 2048 bytes in size. I came to this conclusion because on both graphs begin their consistent upward trend at that point, indicating that this is the point in which the messages begin to be too large for the buffer to hold at once. I think it is very likely the buffer is between 1024 and 2048 bytes inclusively because the upward trend at 2048 bytes would indicate the buffer has been exceeded, not just maxed out on capacity.

Latency Analysis:
I concluded that the latency is somewhere between 0.2 microseconds and 0.4 microseconds. I came to this conclusion because that seems to be the most common transfer times before the buffer size has been reached. Meaning that the only thing to slow down the messages is the latency.

Bandwidth Analysis:
I cam to the conclusion that the bandwidth is around 5-8 megabytes per second. I decided on that estimate by dividing the bits sent by the time it took to send them over many of the data points in my results. This calculation came out to a bandwidth with an average of 6.86 megabytes per second, with some expected variation I decided it was reasonable to assume that the bandwidth was around 5-8 megabytes per second.