CSCI 5673 - Assignment 1 - Performance Report

Observations:

Scenario 1: Run one instance of the seller and one instance of the buyer.

Average response time: 9.6 microseconds for buyer and seller
Average server throughput: 298 requests per second for buyer and seller

Scenario 2: Run concurrently ten instances of buyers and ten instances of sellers.

Average response time: 12.7 microseconds for buyer and seller
Average server throughput: 270 requests per second for buyer and seller

Scenario 3: Run 100 instances of buyers and 100 instances of sellers concurrently.

Average response time: 112.5 microseconds for buyer and seller
Average server throughput: 180 requests per second for buyer and seller

Explanation:

Scenario 1 gives the best performance since it's just one instance of seller and buyer client that gets connected to the server. The server was able to handle most of the requests in a few seconds, and the response time was relatively much quicker.

We were able to see some small lag when running ten instances of the buyer and ten instances of the seller concurrently, and the server took some time to handle all the requests.

For Scenario 3, using threads to handle 100 * 2 clients, we saw that the server took around 4 - 7 seconds to complete one run (ie, 1000 function calls) for measuring throughput.