

Lab 5 Report

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Introduction

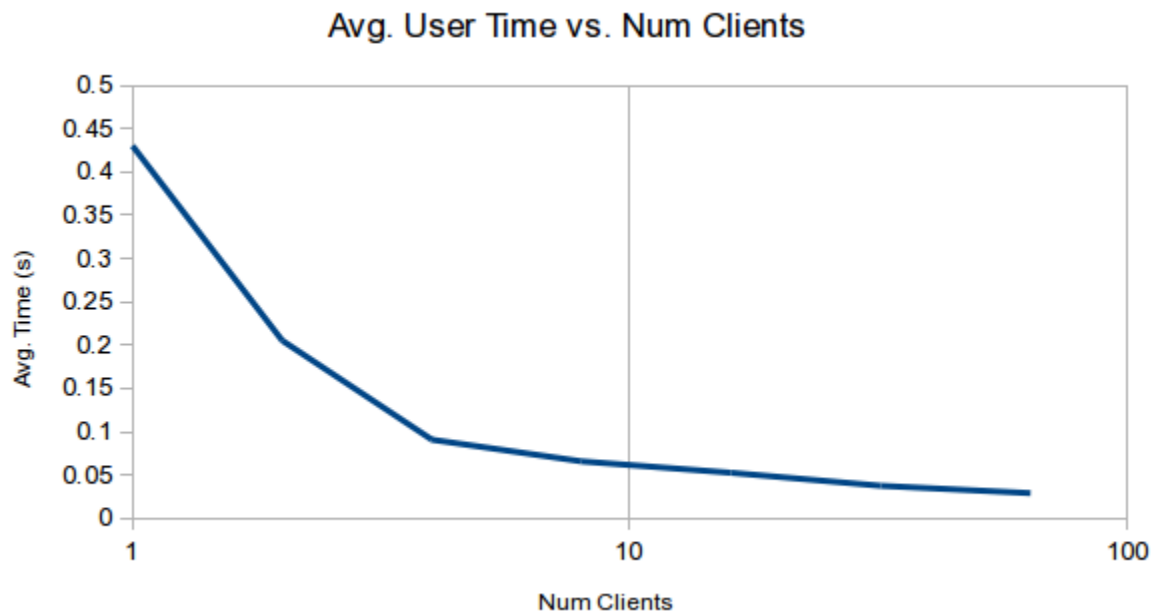
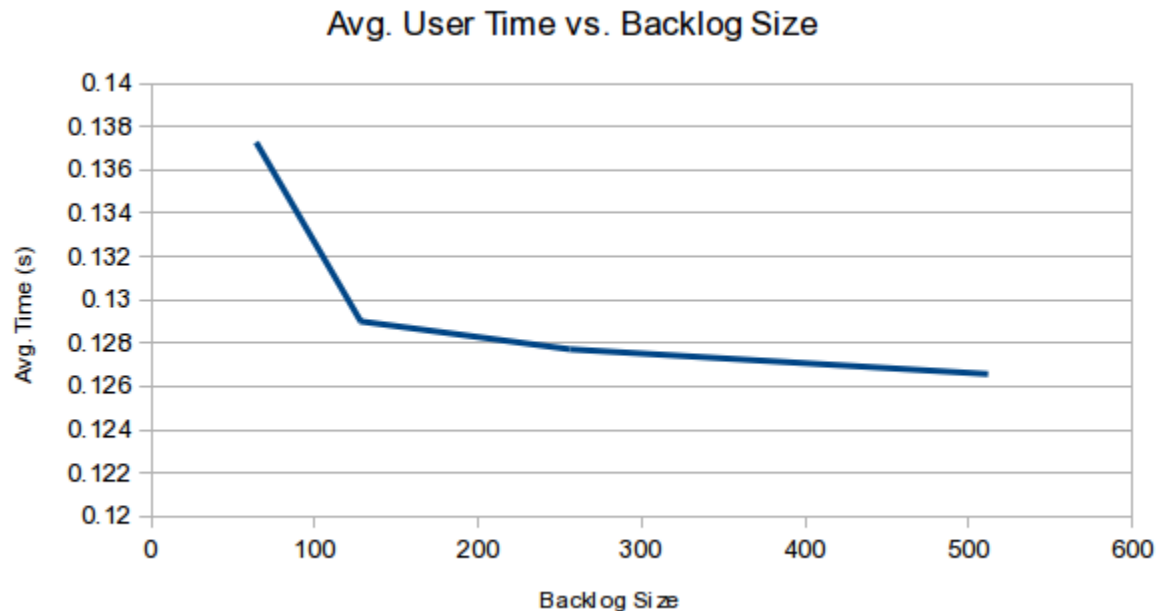
This lab was a continuation of lab 4. We took the server and client and modified them to operate over sockets, effectively allowing them to communicate over a network.

Procedures

We designed a socket framework with which we implemented the protocols for server-client communication over a port and specified host name.

Results

We found that between increasing backlog size and client (worker) count, increasing the client count had more of an impact. This can be seen from the table below as with the times we calculated from increasing backlog size, the average times are rather close together compared to the times calculated from increasing client count.



As similarly discussed in the previous report, the more significant impact that increasing the client count has can be explained by the network bound nature of the program; the more connections (and therefore threads) there are to the server, the more we can take advantage of the time spent waiting on the network by having other threads do other tasks in the mean time.

Conclusion

Overall, the lab was very helpful in learning networking at a lower level. A couple things we would have done differently would have been to look into freeing up the port which we were listening to after the clients all exited; and also implement a special message that, when received, would cause the data server to exit.