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PORT 8701

Banking Client-Server

We began on the client our first thought was to create a way to socket from the client to a server. We built a base version of the server that would just listen for a client. Then when we knew we had a version that was working well we started adding more on top of it. First we made the client thread whenever a new server connected to it so that we could have as many servers as we wanted and then the two threads in the client so that messages sent in would be received immediately. Then we had the client filter out errors that it could to not overburden the server. After that we had to figure out how to handle the signal for the client shutting down and a way to set the program to print all accounts every 15 seconds. We created an alarm at the beginning that once the signal went off for would lock and print all and then set another alarm for 15 seconds. For ending all we changed the signal to first send the shutdown signal to all clients then joined all of their threads before exiting the program. After creating an account object and creating an array of them it was easy to set up the commands and appropriate errors. We ran multiple tests on it, however we noticed after a few trials that we hadn't tried on different machines. After trying we could not figure out how to get the IP of the host from just its name. With the gethostbyname call we were able to to call the address but for some reason we couldn't figure out the formating. Then we realized we had to make it a in_addr object and could then make it a string through inet_ntoa. After that our program worked well and sends the signals properly.