

1. Arushi Pradhan: ap2132 and Shahrez Ahmad: ssa136
2. Shahrez did steps 1 and 2 while Arushi did step 3 and then the both of us collaborated with each other for steps 4 and 5. We consulted the slides from class on socket programming to reference samples of code that would be useful to us and the internet for python documentation.
3. After running step 2, we observed that there was a "Connection refused" error, likely because, without the sleep statement, there was not enough time for the server to start up before the client attempted to connect to it.
4. We were able to implement all portions of the code as required by the project description.
5. Yes, when we were trying to run step 4, we ran into an error that our "transport endpoint is not connected". This happened because we were trying to send and receive data from the server's socket instead of the client's socket (ss instead of csockid). We resolved this by sending and receiving messages through "csockid" in our server.py file.
6. We gained experience using socket programming and through our challenges, we now understand how to properly set up a connection and exchange messages between a client and server. Arushi is relatively new to python, and something interesting that she observed is how seamless python can be when it comes to strings and lists. We also observed that data sent between sockets isn't synchronous so we had to accommodate for that in our code. We did this by sending the contents of the file as one big string from the client's side, and then breaking it apart using the "/n" delimiter and formatting it on the server's side.