REQUIREMENTS DOCUMENT

Requirements for this protocol implementation are:

1. Stateful
2. Concurrent
3. Service
4. Client
5. UI

1. STATEFUL:

The "stateful()" method is used to handle state in both the server and client programs. It reads in methods (server) or response messages (client) and sends the client to the proper function that represents the status of our DFA. It cannot go to the next state if the incorrect method/response message is read in.

2. CONCURRENT:

Threading library is used in this implementation so that server can handle multiple clients at one time. It is also used to send and receive messages concurrently.

3. SERVICE:

The port number 8080 is hardcoded with server and client so that when the connection is initiated the client defaults to this port number.

4. CLIENT:

Host name can be specified by changing the HOST variable in server and client side. If the program is showing error that "Error occured...Please check HOST address and PORT number are correct" this mostly means that the IPv4 address of your machine is different than that specified in the client.py. To correct this open command prompt on your machine and type "ipconfig", now copy the IPv4 address displayed and change the value of HOST variable in main method of client.py to IPv4 address of your machine.

5. UI:

Tkinter library is used to display the GUI where user enters the credentials and after verification chats through the same GUI. The user need not know the details about protocol and the processes happening in server and client side.