

CS425: Assignment 1

Jayant Agrawal
14282

Implementation :

Server

1. Socket File Descriptor Created and bind to a port number (8080).
2. Wait for Accept ...
3. Read Credentials
4. Check for Authentication using *users.txt*
 - a. *users.txt* has username and password for all allowed users
5. If Authentication is successful, send a message indicating the same and read the *filename*
6. If unsuccessful, send a message indicating the same and terminate
7. Send a File indicator, indicating whether the file is present or not (0/1)
 - a. This is to inform the client whether it should expect a file or not
8. Send the file (if present)

Client

1. Socket File Descriptor Created and bind to a port number (8080)
2. Parse Input Credentials
 - a. Separate credentials and hostIP
3. Connect to the server using *hostIP*
4. Send Credentials
5. Getting Authentication Result (message from server)
6. If successful, ask the user for filename
 - a. If not, terminate
7. Send the filename
8. Get the File indicator(indicates whether the file was found or not)
9. If yes, read the file and **print** the contents
10. Otherwise, print "File Not Found", and terminate

Assumptions

1. The file to be sent is a text file
2. *users.txt* is already populated with usernames and passwords

Limitations

1. The interaction is pretty “hard-coded” and standard , and not many errors are handled.
2. New user cannot be inserted.
3. Password cannot be changes for an existing user.
4. Server can handle only one client at one time

Acknowledgment (Also, mentioned in source code)

1. Reference for basic message passing code:
<http://www.cs.rpi.edu/~moorthy/Courses/os98/Pgms/>
2. Reference for file transfer: <http://www.cs.put.poznan.pl/csobaniec/examples/sockets/>