

COMP9331 Assignment

This assignment is implemented with python 3.7

1. To achieve the goal, I wrote two python files. One is Server.py and another is Client.py. They represent the server and client in this assignment.
2. To implement this assignment, I first used single thread to implement but I found this can only be used for one client. If there are multiple clients log in, it will not work. So finally I decided to use multiple thread rather than single thread in order to make multiple clients to log in the forum. It has several classes and lots of functions. The class sever is to print the information for each command and usermanager is to decide which state it should be for login logout and create new users.
3. For the Client.py, it includes a class Client. In the class Client, it has two functions: recv and send. Send is to send the command you input and recv can receive your command and print each information.

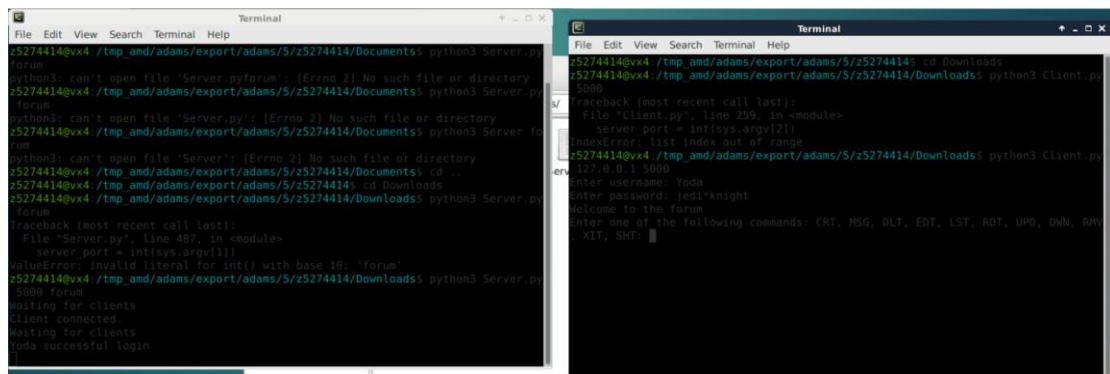
For the Server.py, it's a big file with lots of codes. To implement it, I use class thread, user, server and so on. In each class, I built function to implement edit, delete, remove ..etc commands. In the class server, I built some functions to receive command inputs and print each information.

4. To run the code, you just use the command in the assignment pdf.

For the server, use command: "python3 Server.py 5000
destroyforum (the name can be any)"

For the client, use command : "python3 Client.py 127.0.0.1 5000"

After using these two commands, the screenshots are posted below.



The image contains two side-by-side terminal window screenshots. The left terminal window shows the execution of a server program. It starts with the command `python3 Server.py 5000` in a directory `/tmp_and/adams/export/adams/5/z5274414/Documents/`. It then moves to `Downloads` and runs `python3 Server.py 5000` again. The output shows several error messages: `python3: can't open file 'Server.py': [Errno 2] No such file or directory` and `python3: can't open file 'Server': [Errno 2] No such file or directory`. After navigating to `Downloads` and running `python3 Server.py 5000`, it shows a traceback for `ValueError: invalid literal for int() with base 10: 'forum'`. The server then starts, displaying `5000 forum`, `waiting for clients`, `client connected`, `waiting for clients`, and `yoda successful login`. The right terminal window shows the execution of a client program. It starts with the command `python3 Client.py 127.0.0.1 5000` in a directory `/tmp_and/adams/export/adams/5/z5274414/Downloads/`. It shows a traceback for `IndexError: list index out of range`. The client then connects to the server, displaying `127.0.0.1 5000`, `enter username: Yoda`, `enter password: jedi*knigh`, `welcome to the forum`, and a list of commands: `enter one of the following commands: CRT, MSG, DLT, EDT, LST, ROT, UPD, DWN, RMY, XIT, SHT:`.

5. In this assignment, I did a lot of wrong things. To decode the binary file, I used `eval(client.recv(1024).decode())`, but when I tried to use UPD to upload the test file, it didn't work. After I've check the online forum, I found the number 1024 is too small and changed it to 9999. Again, I tried to upload the test file and it succussed. When I tried another test2 file, it's still too small, so I changed it to 99999999. Finally, it works. I think I should consider more about the binary file size and I should also improve the code quality. My code is too complicated. I think I should the codes should be clean and more concise.