

# ASSIGNMENT REPORT

## 1. Program Design

First of all, I would like to introduce my results of the assignment. I used Python3 to finish this assignment. According to the handbook of the assignment, we need to create an online discussion forum with multithread. The server and clients should communicate using TCP. I need to implement the corresponding functions according to the requirements.

The why I use Python to finish this assignment is because I have no academic background and I have just been in computer science for a term, and I have never taken any relevant courses before. Last term, I studied Python in COMP9024, I think I can put what I study to use. The other reason is that this term I am learning C Programming in COMP9024, I think that it is difficult for me to use C Programming to finish this assignment. Besides, I have never learned Java. Also, I decided to do all the work with a single thread, then did the multithreaded writing.

I'm basically passing commands from client to server. The judgment is then made in Server. During the process of the assignment, I spent more time on the MSG, DLT and EDT than others because of the message number. For MSG, I created a helper function, and used a while loop. while the first string of each line is a number, the message number plus 1. For DLT and EDT, I think the difficulty is matching the corresponding message number to delete and edit.

## 2. Improvements and Deficiencies

In my opinion, The DLT, EDT, SHT still need to be improved.

For DLT and EDT, I created a list named 'msgList' and I matched the message number in the list and edited and deleted it, then rewrote it to the thread file. However, BUG may occur when UPD files exist.

For SHT, I think my client is down well, but the server is not down perfectly. I do not know yet how better to shut down server.

For multithread, I have no idea how it works. Actually, I have watched a lot of videos on YouTube and Google and known about threading library in Python and 'thread', 'setDaemon'

command. However, in the end, I choose to give up, because I was really not familiar with multithreading and felt confused.

Through this assignment, I realized my own shortcomings. I will learn more about multithread and improve my programming skills in the future.

### 3. My harvest

After finishing this assignment, I learned a lot of new things. This is the first time I put what I have learned to use. I think I am more skilled in Python which is very useful for me in the future than before. Moreover, I also learned the socket programming and multithread.

I will practice more in the future.

Thank you.