**PRACTICAL EXERCISE 05 – IT4062E**

Using ***forking*** technique for server to build the following applications:

**Exercise 1.** Build an application using TCP socket as followed:

* Server:
* Use the IP address: 127.0.0.1
* Wait the client request at the port 5500
* Receive messages from client, convert messages to capitalized ones and send back to the client. If receiving “q” or “Q” string, close the connection with client
* Client:
* Connect to the server. Note: Show the notification if it fails to connect to the server
* Get the user message from keyboard and send to server
* Show the response messages from server
* Stop sending and close the connection if the user types “q” or “Q”. Then, showing the total bytes client has sent to server before closing the program

***Note: Use Makefile to create the binary files with the names of files: server and client***

**Exercise 2.** Build a network application using TCP socket as followed:

* Server:
* Use the IP address: 127.0.0.1 (loopback)
* Wait the client request at the port 5501
* Receive the text files from client, translate the original texts to the capitalized ones, then send the translated file back to client.
* Close the connection after sending.
* Client:
* Connect to the server. Note: Show the notification if it fails to connect to the server
* Send the text file to server. The path of the file is entered by user from the keyboard
* Receive the responded file, then close the connection after receiving the file, and show the total sent byte before exiting the program.

***Note: Use Makefile to create the binary files with the names of files: server and client***