CHAT ROOM PROGRAM

«EXECUTION ENVIRONMENT»

Operating system: Windows
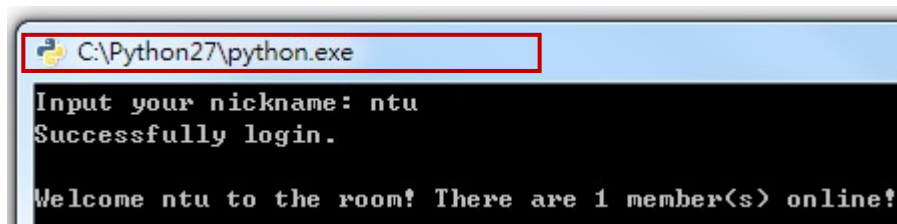Programming language: Python

«FUNCTIONS»
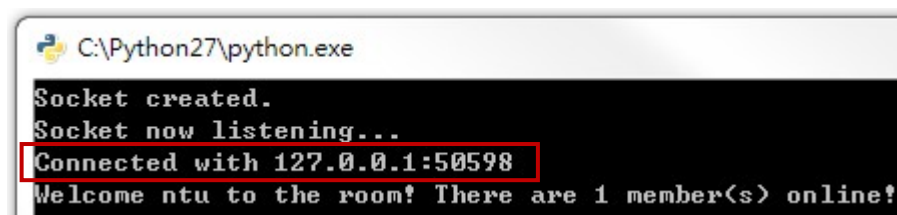
■LOGIN

Input your nickname "ntu" and then login.

Client "ntu"

Server

■LEAVE

Client "ABC" leaves the chat room.

Server

Client "ntu"

```
Input your nickname: ntu
Successfully login.

Welcome ntu to the room! There are 1 member(s) online!

Welcome ABC to the room! There are 2 member(s) online!

ABC leaves the room!
```

■ SEND MESSAGE
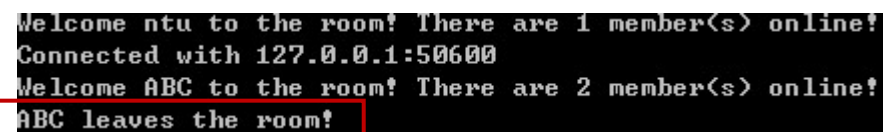
Client "Ma19" send a message "Hello World! I'm Ma 19" in the chat room.

Server

```
Socket created.
Socket now listening...
Connected with 127.0.0.1:50598
Welcome ntu to the room! There are 1 member(s) online!
Connected with 127.0.0.1:50600
Welcome ABC to the room! There are 2 member(s) online!
ABC leaves the room!
Connected with 127.0.0.1:50602
Welcome Ma19 to the room! There are 2 member(s) online!
[Ma19]: Hello World! I'm Ma 19
```

Client "ntu"

```
Input your nickname: ntu
Successfully login.

Welcome ntu to the room! There are 1 member(s) online!

Welcome ABC to the room! There are 2 member(s) online!

ABC leaves the room!

Welcome Ma19 to the room! There are 2 member(s) online!

[Ma19]: Hello World! I'm Ma 19
```

Client "Ma19"

```
Input your nickname: Ma19
Successfully login.

Welcome Ma19 to the room! There are 2 member(s) online!
Hello World! I'm Ma 19
```

■ SEND FILE (ACCEPT TEXT OR BINARY FORMAT)

Client "ntu" upload a text file first and then receive a file id from the server. So does the binary file case.

Client "ntu"

```
send_file D://speech.txt
Successfully send file D://speech.txt to server!

Successfully upload file D://NTU/ComputerNetwork/files_warehouse/047e9098-c8d3-4
c82-8144-b994b62442c5_speech.txt to server, file id:5
```

Client "ntu"

```
send_file D://logo.jpg
Successfully send file D://logo.jpg to server!

Successfully upload file D://NTU/ComputerNetwork/files_warehouse/b08464b8-fd03-4
a5a-92af-632831f598ce_logo.jpg to server, file id:6
```

Server

```
Successfully upload file D://NTU/ComputerNetwork/files_warehouse/047e9098-c8d3-4
c82-8144-b994b62442c5_speech.txt to server, file id:5
```

■ REQUEST FILE (ACCEPT TEXT OR BINARY FORMAT)

Client "Ma19" download a file by sending the file id to the server.
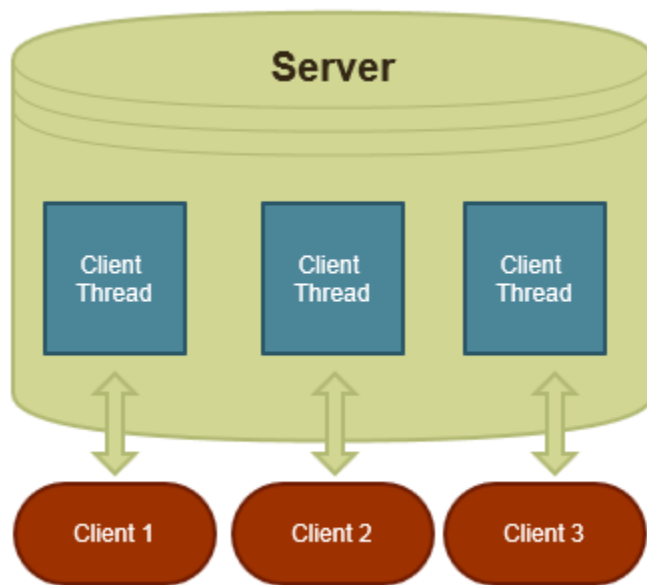
Client "Ma19"

```
get_file 5

Successfully receive file D:\NTU\ComputerNetwork\src\chatroom\27f41a08-cbd8-41fa
-b2c0-732656704c28_047e9098-c8d3-4c82-8144-b994b62442c5_speech.txt from server
```

Server

```
Successfully send file id:5 to Ma19 !
```

«ABOUT DESIGN»

■ ARCHITECTURE

■ DIFFICULTY AND SOLUTION

- ● Difficulty: file sharing
  - ✓ Solution: