User Manual

First of all, generate the executable files '**logServer**' and '**logClient**' by compiling the corresponding source files with the 'make' command (see README.txt). Then, from the command line run the following commands.

- **Server**
  To run the server:
  `./logServer <listening_port> <directory>`

  - The first argument is the port number on which the server will listen, port numbers from 0 to 1023 are reserved (well-known ports).
  - The second argument is the directory to store the log file. If the directory doesn't exist then it will be created.

  <u>Note</u> As the specifications asked, when the server is started it will open a new log file (without removing any old file). Inside 'logServer.c' there is a constant called MAXLOGFILE (set by default to 5) that specifies the maximum number of log files that can be stored inside the given directory. Log files are automatically named as follows: 'server_0.log', 'server_1.log', 'server_2.log' and so on.

  <u>Example:</u>

  `./logServer 8475 logs`

- **Client**
  To run the client:
  `./logClient <IP_address> <listening_port>`

  - The first argument is the IPv4 address of the server. If we run both the server and the client on the same machine then we can use the loopback address (127.0.0.1).
  - The second argument is the port number on which the server is listening.

  <u>Example:</u>

  `./logClient 127.0.0.1 8475`

After running the server, you can run multiple clients.

In the client terminal, after the connection to the server, you will be asked to enter a message to send to the server. If you want to close the connection with the server type 'exit' and press ENTER.

In the server terminal, every time the server receives a message from a client it will be stored in the log file, inside the directory specified at the beginning. Moreover, the received message will be displayed on the terminal, together with a timestamp, the address and port number of the client.

If you want to shut down the server, press Ctrl+C. The order of shut down will be also registered in the log file.

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