

System Requirements:

The software is intended for a Linux operating system with Bash.

Software Installation:

On the Server Side:

1. The server side should include the files: “server.c”, “server.h”, and “makefile”.
2. In Bash (with the current directory set to “serverSide”), run the command “make”. This will create an executable file named “server”.

On the Client Side:

1. The client side should include the files: “client.c”, “client.h”, and “makefile”.
 2. In Bash (with the current directory set to “clientSide”), run the command “make”. This will create an executable file named “client”.
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Running the Software:

On the Server Side:

In Bash (pointing to the “serverSide” directory), run “./server” and the server will start running.

On the Client Side:

In Bash (pointing to the “clientSide” directory), run “./client” and the client will start running.

Notes:

In the project implementation:

- The server uses multiprocessing and can serve multiple clients simultaneously.
- The server stops serving a client that has been inactive for the last 5 minutes.
- The server regularly checks that it has an internet connection.
- The client regularly checks that it has an internet connection and that its IP address hasn’t changed (which can happen when switching networks). In the first case, it pauses the client software until internet connectivity is restored; in

the second case, it establishes a new connection to the server using the updated IP address.

- The client software visually simulates working directly in the shell of the remote computer.