

ECEN 602 Network Programming Assignment – 1

TCP Echo Server & Client

TEAM – 8

Dhiltom Pandaraparambil Antony

Nelson Dsouza

Nelson wrote the Client side code and Dhiltom did the Server side code.

The package contains 5 files:

1. echoclient.c
2. echoserv.c
3. README.pdf
4. README.txt
5. makefile

To compile the code, run the makefile: make

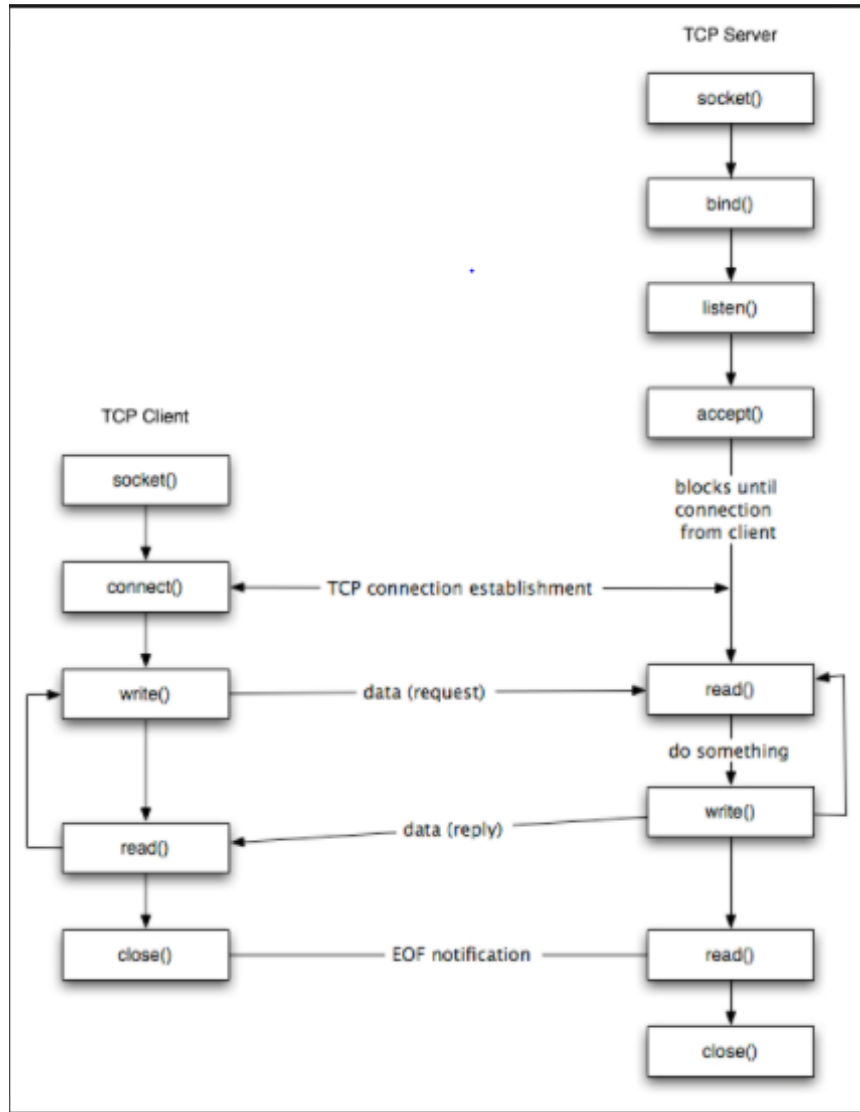
Run the server by using the command line: /echoserv port

Run the client by using the command line: /echoclient localhost port

In this project, the IP address used is 127.0.0.1

To clean the executables run: make clean

ARCHITECTURE



Server side:

Server side mainly consists of `socket()`, `bind()`, `listen()`, `accept()`, `fork()`, `readline()` and `written()` functions.

First we create a socket, then bind the socket to the assigned IP address and port, and then listen to the port for client connections. When client connects to the server, accept it and then use `fork()` to create a child process to receive and send message back to client.

Client side:

Client side mainly consists of `socket()`, `connect()`, `written()` and `readline()` functions.

First create the socket, then connect the client to server, then using the `fgets()` to get characters from standard input, and then send the data to server, finally receive the echoed message from server and display it on screen.

Error Handling:

We have used `strerror()` function to print out the description of the errors.

Usage : `strerror(errno)`