



Computer Networks

Assignment-1

Socket Programming

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cd to the folder 20170183_XXXXX

Open two terminals (may open multiple to check multiple client servicing.)

1. TO RUN SERVER

```
cd server
gcc server.cpp
./a.out
```

2. TO RUN CLIENT (x)

```
cd client_x
gcc client.cpp
./a.out
```

SOCKET PROGRAMMING:

Socket : A node in a network.

In socket programming , both the nodes are initially set up to start the communication.

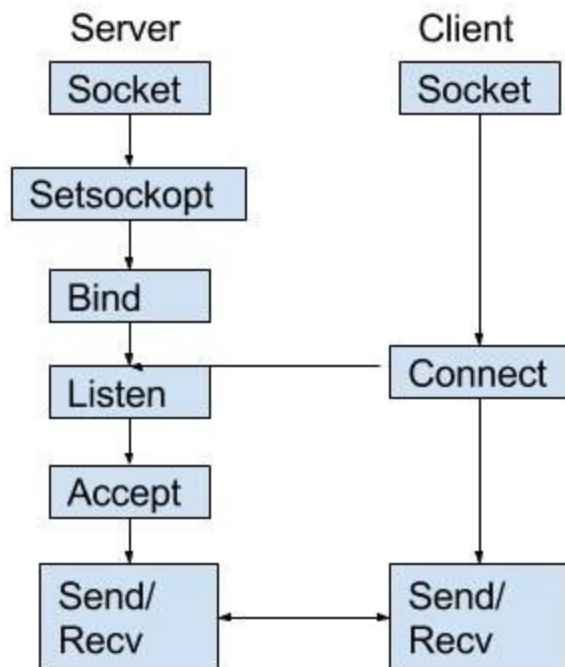
Server and client go through the following steps to set up.

SERVER:

1. The socket is generated using `socket(__, __, __)`;
2. Next the socket is bound to the ip address and the port number.
3. It then starts listening. Backlog determines how many requests are allowed at once.
4. Then the server waits for the client.
5. As soon as it receives a request from the client , it accepts the connection , and creates a new socket to start fresh communication .
6. The messages are sent and received through the `send/recv` commands.

CLIENT

1. It also goes through the same procedure. Firstly the socket is created.
2. Then it sends a connection request. Server if free, accepts the request , and then communication starts.



1. I use the basic concepts of string tokenizing the string using STRTOK.
2. Also i use malloc to randomly allocate memory , as and when required.
3. Proper error handling is done , where errors can come.