1. Server Client Identification.

System calls to be used mainly:
getsockname() , getpeername()
getsockname(sfd, …) gives the local IP and local port of the 5-tupe of socket(sfd) connection.
In server : getsockname(sfd,..) should be called after bind() system call, because the local IP and local port will get binded(as local IP and local port is assigned by you)
In Client : getsockname(sfd,..) should be called after connect() system call, because the local IP and local port will be automatically gets allotted by the kernel . So with this system call you will be knowing what are local IP and local port.
getpeername(sfd, …) gives the foreign IP and foreign port of the 5-tupe of socket(sfd/nsfd) connection.
In server : getpeername(**nsfd**,..) should be called after accept() system call, because the foreign IP and foreign port will be known(as foreign IP and foreign port is accepted)
In Client : getpeername(**sfd**,..) should be called after connect() system call, because the foreign IP and foreign port would be supplied by you . So with this system call you will be knowing what are the foreign IP and foreign port.
Coding Scenario:
Iterative Server (S):
Let S opens a sfd. After the bid system call print print its local Ip, local Port by getsockname(sfd,…) . Now any client can get connected to it .
Soon the accept(), use getpeername(**nsfd,**….) and print the foreign IP and foreign port(i.e. client's IP and port) . Now read the data sent by the client, display it and close the nsfd.
Now accept() another client and repeat the same. As the server is accepting only one client at a time and receiving its data, displaying and closing the nsfd, it is an iterative server.
Client (C): C has to connect() and after connect() it has to print its local Ip, local Port by getsockname(sfd,…) and has to print foreign IP , foreign port using getpeername(**sfd**, ..).
Now read some data from keyboard and send it to server.
Create many clients with different port numbers and check.

2. Multisfd Polled Server Threaded Services:

Server (S)
Let S creates three sfds , with different port numbers (i.e. each sfd is for a different service)
All the three sfds gets **poll**ed.
When a client gets accepted to a sfdi, then create a thread service TSi for that nsfd and let the TSi service that accepted client.
TS1 : service thread 1 : go on receive data from client and display.(echo service)
TS2 : service thread 2 : receive data from client , make upper case the data and send to client. Let the client displays that data.
TS3 : service thread 3 : receive data from client , make lower case the data and send to client. Let the client displays that data.
Client 1 : This type of client will get connected to the server to sfd1 and reads data from keyboard and sends to S.

Client 3 : This type of client will get connected to the server to sfd3 and reads data from keyboard and sends to S. Then it receives data from S and displays. The displayed data should be lowerercase.

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