**MultiServiceServer.c**

Run server and client programs on two different terminals

Compile this file using command: gcc -o MultiServiceServer MultiServiceServer.c -lpthread

Run this file using command: ./ MultiServiceServer

This starts a server on 127.0.0.1 port 8000

* For tcp client
* Create master socket for TCP client
* Binds socket to client address and port
* Listening mode
* For udp client
* Create master socket for UDP client
* Binds socket to client address and port
* Select function blocks the program until input or output is ready on a specified set of file descriptors, or until a timer expires, whichever comes first. This facility is declared in the header file sys/types.h. It allows a program to monitor multiple file descriptors, waiting until one or more of the file descriptors become "ready" for some class of I/O operation
* If tcp client request arrives a thread is created and it calls a method tcp\_process which has slave socket which handles each TCP client request
* If udp client request arrives a thread is created and it calls a method udp\_process which has udp slave socket which handles each UDP client request to display list of DVD items
* If a udp client order request arrives it calls a method udp\_process1 which has udp slave socket which handles each UDP client request for placing order of DVD items
* It also prints on server side Client request(list or order), Server and Client IP address and port number, total number of DVDs purchased since server started and total TCP and UDP connections since server started

**TCPclient.c**

Compile this file using command: gcc TCPclient.c -o TCPclient

List

./TCPclient 127.0.0.1 8000 list

Order:

./TCPclient 127.0.0.1 8000 order 1001 80

**UDPclient.c**

Compile this file using command: gcc UDPclient.c -o UDPclient

List:

./ UDPclient 127.0.0.1 8000 list

Order

./ UDPclient 127.0.0.1 8000 order 1003 10

**References:**

* http://floppsie.comp.glam.ac.uk/Glamorgan/gaius/operating/slides/8.html
* <http://www.linuxhowtos.org/C_C++/socket.htm>
* http://linux.die.net/man/3/inet\_ntoa