SHRUTHI KATAPALLY

Username: shrukata

PROJECT-1

SOCKET PROGRAMMING: netcat_part

INTRODUCTION:

This project gives the implementation of server and client using basic socket programming. The client in message mode sends server some message (through command prompt) and server writes it to a file

This project submission has the following things:

- netcat_part.c
- Makefile
- README

The netcat_part.c has the following:

The project runs in two different modes:

1) Client mode: In client mode, a socket will be created where it reads data from the command line (message mode) or a file from the command line and sends to server. If a –n option is given, the client will send only that number of bytes in the file given. If a –o option is given, the file pointer moves to that offset value, reads and sends the data from that point. All this is done using fseek( ) function.
2) Server mode: In the server mode, a socket is created and binded to a port number, by default it takes 6767 and the IP address is localhost(127.0.0.1). Once the bind is successful, the server listens to it for any incoming connections. When a client sends a request, server will accept it and will create an other client socket for reading and writing to this client.

The Makefile has the following :

A **Makefile** is written for the ease of compilation. The file netcat_part.c is complied and an object file netcart_part.o is generated using this makefile. It is also used for removing the previously generated object file and to remove previously generated output_file.txt

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The README has the following :

A **README** gives the basic idea of the code(netcat_part.c) which is used in running the project. It will also give the procedure to execute the program. It also gives how to use the Makefile to compile the program. Readme also has the output analyzation.

References and Credits and Work division:

I did the client file part, n bytes, offset, n bytes and offset together functions and server part, intending of the program and make file. The following are the functions which I coded tp implement the above functionalities in the program.

initialize_clientfile(sockfd,&nc_args);

initialize_clientfileoffsetbytes(sockfd,&nc_args);

initialize_clientfilebytes(sockfd,&nc_args);

initialize_clientfileoffset(sockfd,&nc_args);

Project Partner:

AnudhritiReddy K (anukatan)

Books:

1) TCP/IP Sockets in C: A Practical Guide for Programmers 2

2) http://www.beej.us/guide/bgnet/output/print/bgnet_A4.pdf