Assignment 2

MULTI-USER CHAT SYSTEM

Created a server script and a client script (that will connect to the server).

Starting off with a few includes

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <unistd.h>

#include <sys/types.h>

#include <sys/socket.h>

#include <netdb.h>

#include <sys/un.h>

Server.c :

Here comes the main function which contains function imported from the above imported files such as:

Call Socket:to create a stream socket.

socket(AF\_UNIX, SOCK\_STREAM, 0)

Call bind():to bind the socket to an address in the Unix domain.

bind(sockfd, (struct sockaddr \*)&my\_addr, sizeof(struct sockaddr)

Call listen(): This instructs the socket to listen for incoming connections from client programs.

Here we can connect at max 10 clients.

listen(sockfd, 10)

Call accept(): This will accept a connection from a client.

accept(sockfd, (struct sockaddr \*)&client\_addr, &addrlen)

Client.c :

Client to contains same functions as in server.

Call Socket:

sockfd = socket(AF\_UNIX, SOCK\_STREAM, 0)

Call Connect:To connect to server.

connect(sockfd, (struct sockaddr \*)&server\_addr, sizeof(struct sockaddr\_un)

We use send() and recv() to exchange messages in form of string.

send(sockfd, send\_buf, strlen(send\_buf), 0);

recv(sockfd, recv\_buf, BUFSIZE, 0);

For private Messaging I used port number

getpid()

ERROR HANDELING:

Called unlink() before bind() to remove the socket if it already exists.

All these functions are checked using if statement for errors.