

Socket Programming Assignment.

16 January 2018

How to Run?

1. Extract the zip folder at any location. Move to that directory.
2. Then, open terminal in that directory and compile and run server.c with gcc like this :

```
$ gcc server.c
```

```
$ ./a.out
```
3. Then, compile and run client.c with gcc like this :

```
$ gcc client.c
```

```
$ ./a.out
```
4. Then, in the client's terminal, type a message asking server what is the time?

```
C : What is the time, Server?
```
5. The server will reply with the correct time.

Results

```

client.c
#include <stdio.h>
int main()
{
    mohtamohit@mohtamohit-Inspiron-5558: ~/Desktop
    mohtamohit@mohtamohit-Inspiron-5558:~/Desktop$ cd Desktop/
    mohtamohit@mohtamohit-Inspiron-5558:~/Desktop$ gcc client.c
    mohtamohit@mohtamohit-Inspiron-5558:~/Desktop$ ./a.out
    C : What is the time, Server?
    Tue Jan 16 14:09:47 2018
    mohtamohit@mohtamohit-Inspiron-5558:~/Desktop$

server.c
int new_socket;
time_t t = time(NULL);
struct tm *tm = localtime(&t);

// receive socket_desc of client
struct sockaddr_in server, client;

char message_to_client[64];
char message_from_client[64];

// create a socket
socket_desc = socket(AF_INET, SOCK_STREAM, 0);
if(socket_desc == -1){
    puts("Failed to create socket");
}

// prepare server information
server.sin_family = AF_INET;

// SERVER IPs
server.sin_addr.s_addr = INADDR_ANY;

// port number to listen
server.sin_port = htons(8883);

// bind socket_desc with server info
if(bind(socket_desc, (struct sockaddr *)&server, sizeof(server)) < 0)
{
    puts("Bind failed.");
}
  
```