In this activity you will run a TCP echo server that will receive a string (one word) from the TCP client, and will echo it back to the client. To do this you need to download, compile and run the TCPEchoClient.c and TCPEchoServer.c files from
http://cs.ecs.baylor.edu/~donahoo/practical/CSockets2/textcode.html

(Links to an external site.)

You also need to download other files that contain functions needed to run the program: DieWithMessage.c, TCPServerUtility.c, TCPClientUtility.c, Practical.h, AddressUtility.c. Save all files into one directory. Do not modify (yet) the originals. Study the code and understand how it works and what it does. Look up what *-std=gnu99* option is.

Compile your client: gcc -o TCPEchoClient -std=gnu99 TCPEchoClient.c DieWithMessage.c TCPClientUtility.c

Compile your server: gcc -o TCPEchoServer -std=gnu99 TCPEchoServer.c AddressUtility.c TCPServerUtility.c

        DieWithMessage.c

To run:

1. Open two terminals, one to run the server, another to run the client.

2. Start the server first by typing in one of the terminals: **./TCPEchoServer 1111**

      where 1111 is the port number . Any large number should work here, as long as the server and client have the same one. You

      can experiment with that.

3. Start the client: **./TCPEchoClient** *machine* **HelloWorld! 1111**

      where *machine* is either an IP address, or machine name (Eg.: babbage5.computing.clemson.edu, if on SoC network).

      To find your machine's IP address run command on the command line: **hostname -I (** this is an uppercase i)

4. Server will echo the string back to the client, print "Handling client" and close the connection.

Clients will print the echoed string and close the connection as well.

After you get to run the code, include a screenshot from both the client and the server that CLEARLY shows that it runs and echoes the string you passed to it. Edit your screenshot in an image editor and crop off the parts you do not want. Place these screenshots in the pdf file and submit it, do not submit any code.