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CPSC 3600
Activity 4

1. Other than UDPEchoClient.c and UDPEchoServer.c the client server program also needs the files Practical.h, DieWithMessage.c and AddressUtility.c to run.
2. I compiled the client and server code by issuing the following commands:

```
gcc -o UDPEchoClient -std=gnu99 UDPEchoClient.c DieWithMessage.c
AddressUtility.c
```

```
gcc -o UDPEchoServer -std=gnu99 UDPEchoServer.c DieWithMessage.c
AddressUtility.c
```

For the command line arguments to run the program, the first argument is the server address, the second argument is the string to echo and the third optional argument is the server port.

In order to start the server side I ran the command `./UDPEchoServer 1111` in a new terminal window.

In order to run the client side I ran the command `./UDPEchoClient 10.0.2.15 HelloWorld! 1111`. In this case 10.0.2.15 was the IP address of my machine (which is the server), "HelloWorld!" was the string I was trying to echo, and 1111 was the port number I established when I started the server.

3. Screenshots:

Client Side:

```
cpsc3600@vm1-ubuntu-1804:~/Desktop/Activity4$ gcc -o UDPEchoClient -std=gnu99 UD
PEchoClient.c DieWithMessage.c AddressUtility.c
cpsc3600@vm1-ubuntu-1804:~/Desktop/Activity4$ gcc -o UDPEchoServer -std=gnu99 UD
PEchoServer.c DieWithMessage.c AddressUtility.c
cpsc3600@vm1-ubuntu-1804:~/Desktop/Activity4$ ./UDPEchoClient 10.0.2.15 HelloWor
ld! 1111
Received: HelloWorld!
cpsc3600@vm1-ubuntu-1804:~/Desktop/Activity4$
```

Server Side:

```
cpsc3600@vm1-ubuntu-1804:~/Desktop/Activity4$ ./UDPEchoServer 1111
Handling client 10.0.2.15-36172
```