

ECEN 602

Assignment 1 Test Cases

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1. Line of text terminated by a newline

<pre>yash2410@yash2410-Vostro-14-3468:~/Projects/ECEN602/1\$./echos 8080 [*] INITIATE SERVER AT 127.0.0.1 PORT 8080 [*] SOCKET SUCCESSFUL [*] SETSOCKOPT SUCCESSFUL [*] BIND SUCCESSFUL [*] LISTENING SUCCESSFUL [*] CONNECTION ACCEPTED [+] MSG RECIEVED: Hello [+] MSG SENT: Hello █</pre>	<pre>yash2410@yash2410-Vostro-14-3468:~/Projects/ECEN602/1\$./echo 127.0.0.1 8080 [+] ECHO 127.0.0.1 [+] SOCKET CREATED [+] CONNECTED TO SERVER Enter message: Hello \n [+] MSG SENT: Hello [+] MSG RECIEVED: Hello [+] CONNECTION TO SERVER CLOSED yash2410@yash2410-Vostro-14-3468:~/Projects/ECEN602/1\$ █</pre>
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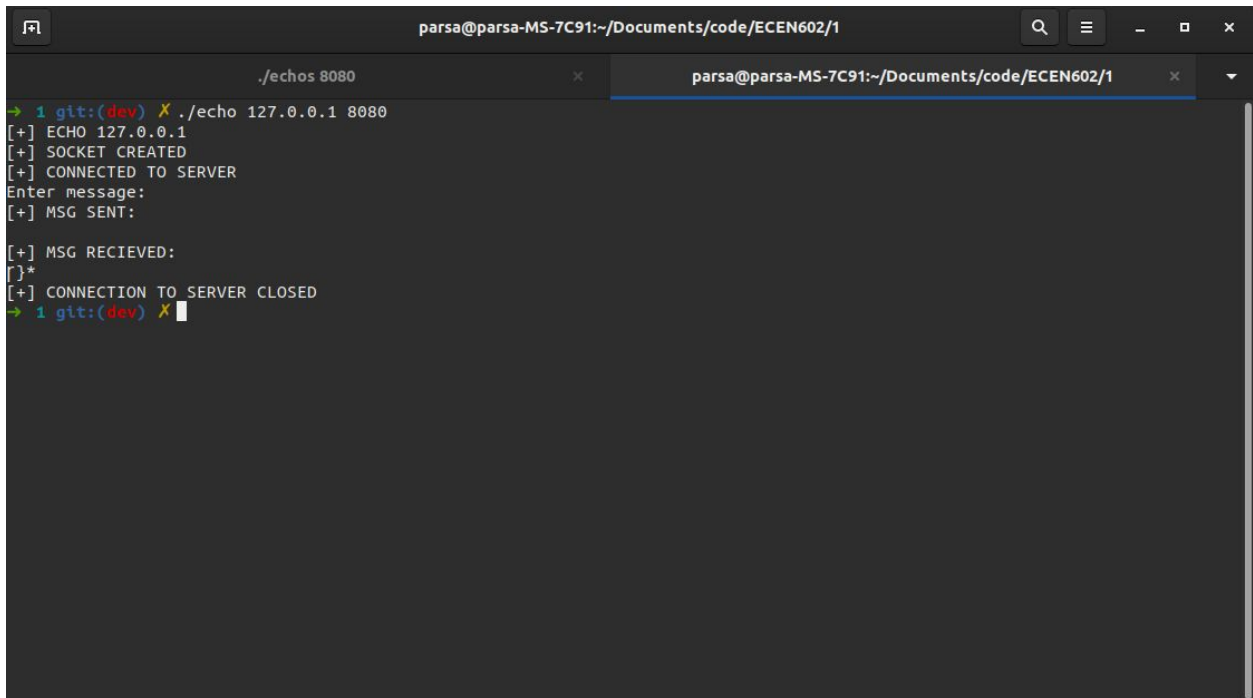
Text terminated by a newline

2. Line of text the maximum line length without a newline

<pre>yash2410@yash2410-Vostro-14-3468:~/Projects/ECEN602/1\$./echos 8080 [*] INITIATE SERVER AT 127.0.0.1 PORT 8080 [*] SOCKET SUCCESSFUL [*] SETSOCKOPT SUCCESSFUL [*] BIND SUCCESSFUL [*] LISTENING SUCCESSFUL [*] CONNECTION ACCEPTED [+] MSG RECIEVED: Hellowor [+] MSG SENT: Hellowor █</pre>	<pre>yash2410@yash2410-Vostro-14-3468:~/Projects/ECEN602/1\$./echo 127.0.0.1 8080 [+] ECHO 127.0.0.1 [+] SOCKET CREATED [+] CONNECTED TO SERVER Enter message: Hellowor [+] MSG SENT: Hellowor [+] MSG RECIEVED: Hellowor [+] CONNECTION TO SERVER CLOSED yash2410@yash2410-Vostro-14-3468:~/Projects/ECEN602/1\$ █</pre>
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Maximum character length passed without a newline

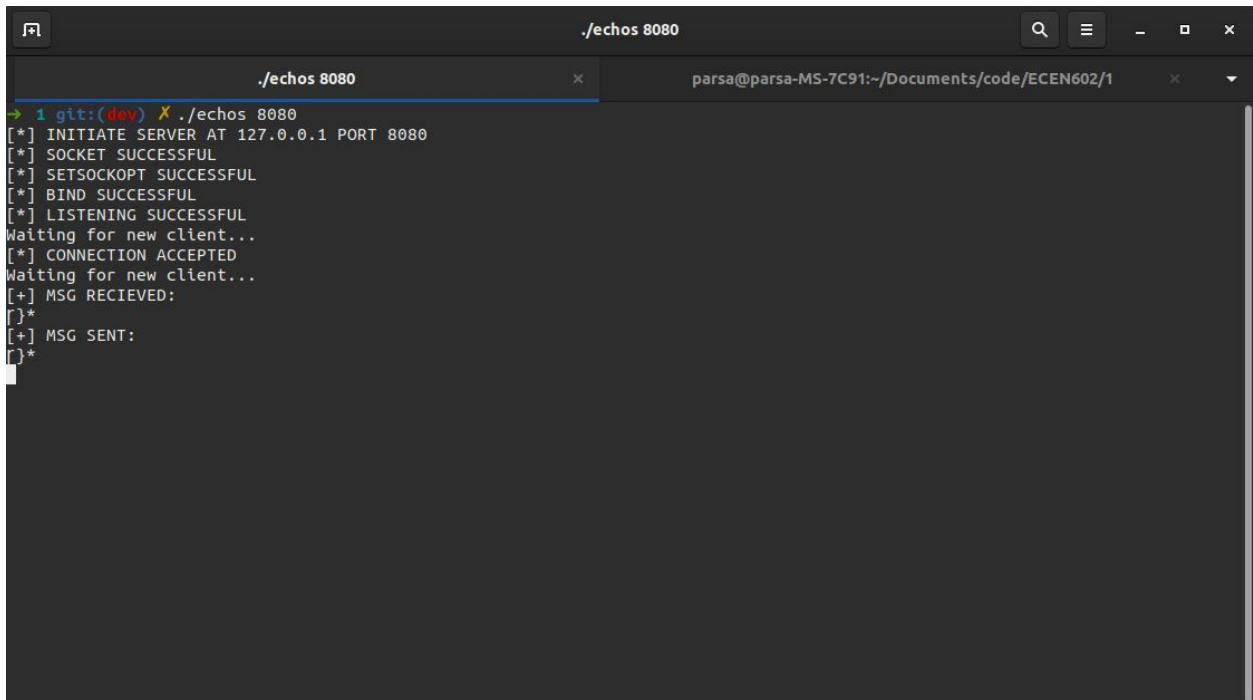
3. Line with no characters and EOF



```
parsa@parsa-MS-7C91:~/Documents/code/ECEN602/1
./echos 8080
→ 1 git:(dev) X ./echos 127.0.0.1 8080
[+] ECHO 127.0.0.1
[+] SOCKET CREATED
[+] CONNECTED TO SERVER
Enter message:
[+] MSG SENT:

[+] MSG RECIEVED:
[+] *
[+] CONNECTION TO SERVER CLOSED
→ 1 git:(dev) X
```

Message sent from client with no characters and only EOF



```
./echos 8080
→ 1 git:(dev) X ./echos 8080
[*] INITIATE SERVER AT 127.0.0.1 PORT 8080
[*] SOCKET SUCCESSFUL
[*] SETSOCKOPT SUCCESSFUL
[*] BIND SUCCESSFUL
[*] LISTENING SUCCESSFUL
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[+] MSG RECIEVED:
[+] *
[+] MSG SENT:
[+] *
```

Message received from client with no characters and only EOF

4. Client terminated after entering text

```
yash2410@yash2410-Vostro-14-3468:~/Projects/ECEN602/1$ ./echos 8080
[*] INITIATE SERVER AT 127.0.0.1 PORT 8080
[*] SOCKET SUCCESSFUL
[*] SETSOCKOPT SUCCESSFUL
[*] BIND SUCCESSFUL
[*] LISTENING SUCCESSFUL
[*] CONNECTION ACCEPTED
[+] MSG RECIEVED: Hello
[+] MSG SENT: Hello
[]

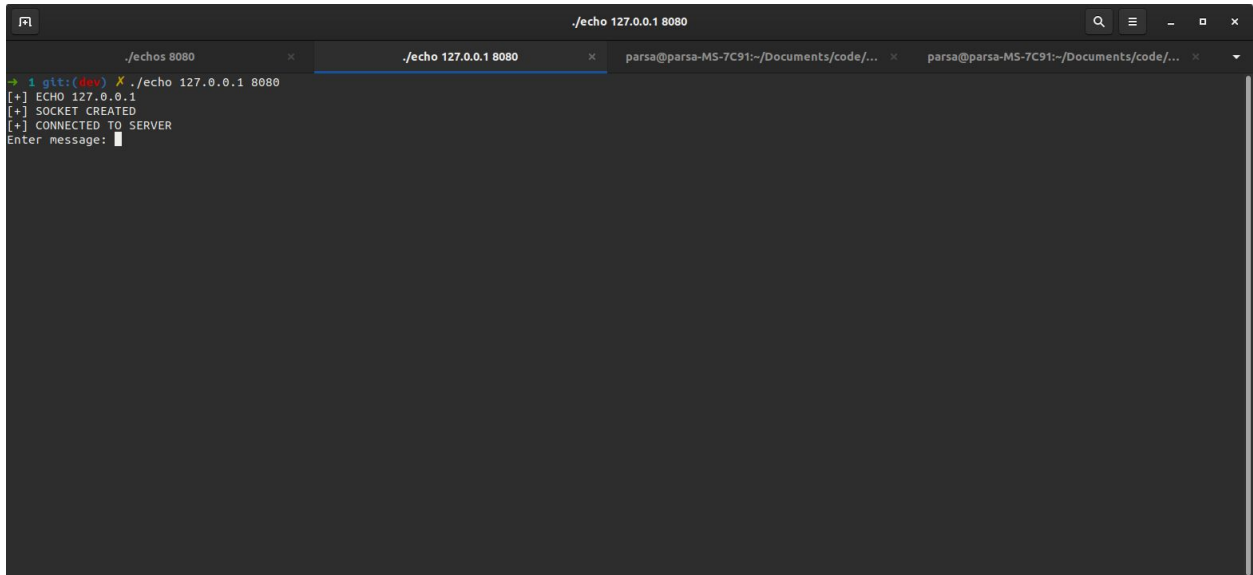
yash2410@yash2410-Vostro-14-3468:~/Projects/ECEN602/1$ ./echo 127.0.0.1 8080
[+] ECHO 127.0.0.1
[+] SOCKET CREATED
[+] CONNECTED TO SERVER
Enter message: Hello
[+] MSG SENT: Hello
[+] MSG RECIEVED: Hello
[+] CONNECTION TO SERVER CLOSED
yash2410@yash2410-Vostro-14-3468:~/Projects/ECEN602/1$
```

Client terminated upon echoing the text

1. Three clients connected to the server

```
./echos 8080
[*] INITIATE SERVER AT 127.0.0.1 PORT 8080
[*] SOCKET SUCCESSFUL
[*] SETSOCKOPT SUCCESSFUL
[*] BIND SUCCESSFUL
[*] LISTENING SUCCESSFUL
Waiting for new client...
```

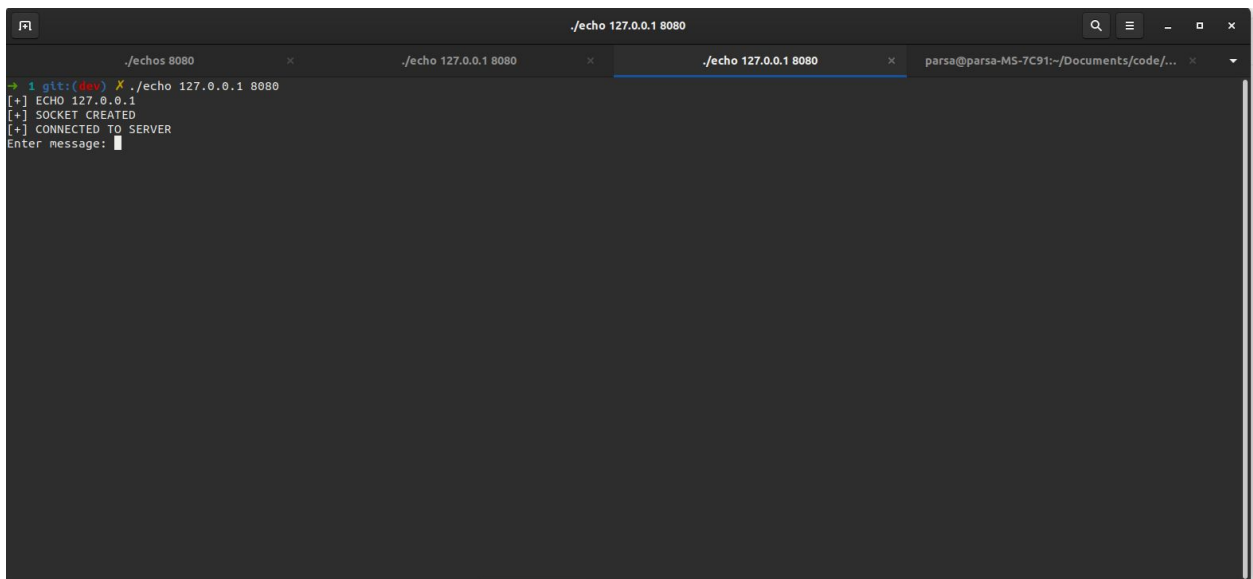
Starting the server



A terminal window with a dark background. The title bar shows the command `./echo 127.0.0.1 8080`. The terminal output shows the following sequence of events: a prompt `➜ 1 git:(dev) X` followed by the command `./echo 127.0.0.1 8080`, then `[+] ECHO 127.0.0.1`, `[+] SOCKET CREATED`, and `[+] CONNECTED TO SERVER`. The prompt `Enter message:` is followed by a cursor. The terminal has tabs for `./echos 8080`, `./echo 127.0.0.1 8080`, and two browser tabs.

```
➜ 1 git:(dev) X ./echo 127.0.0.1 8080
[+] ECHO 127.0.0.1
[+] SOCKET CREATED
[+] CONNECTED TO SERVER
Enter message: 
```

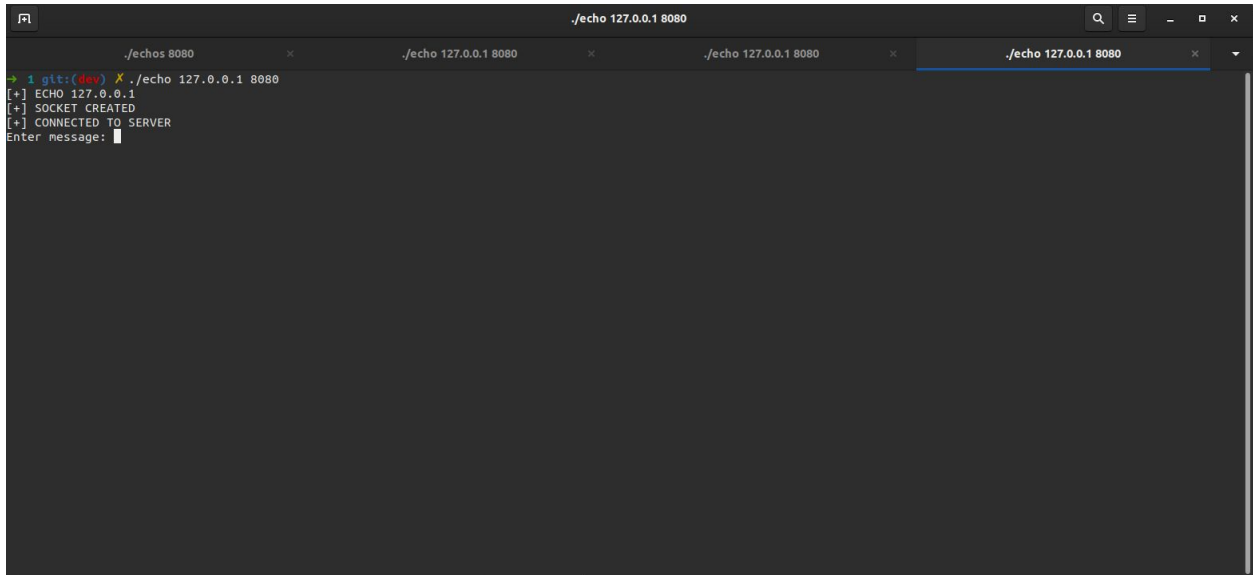
Starting the first client



A terminal window with a dark background. The title bar shows the command `./echo 127.0.0.1 8080`. The terminal output shows the following sequence of events: a prompt `➜ 1 git:(dev) X` followed by the command `./echo 127.0.0.1 8080`, then `[+] ECHO 127.0.0.1`, `[+] SOCKET CREATED`, and `[+] CONNECTED TO SERVER`. The prompt `Enter message:` is followed by a cursor. The terminal has tabs for `./echos 8080`, `./echo 127.0.0.1 8080`, and `./echo 127.0.0.1 8080`, along with two browser tabs.

```
➜ 1 git:(dev) X ./echo 127.0.0.1 8080
[+] ECHO 127.0.0.1
[+] SOCKET CREATED
[+] CONNECTED TO SERVER
Enter message: 
```

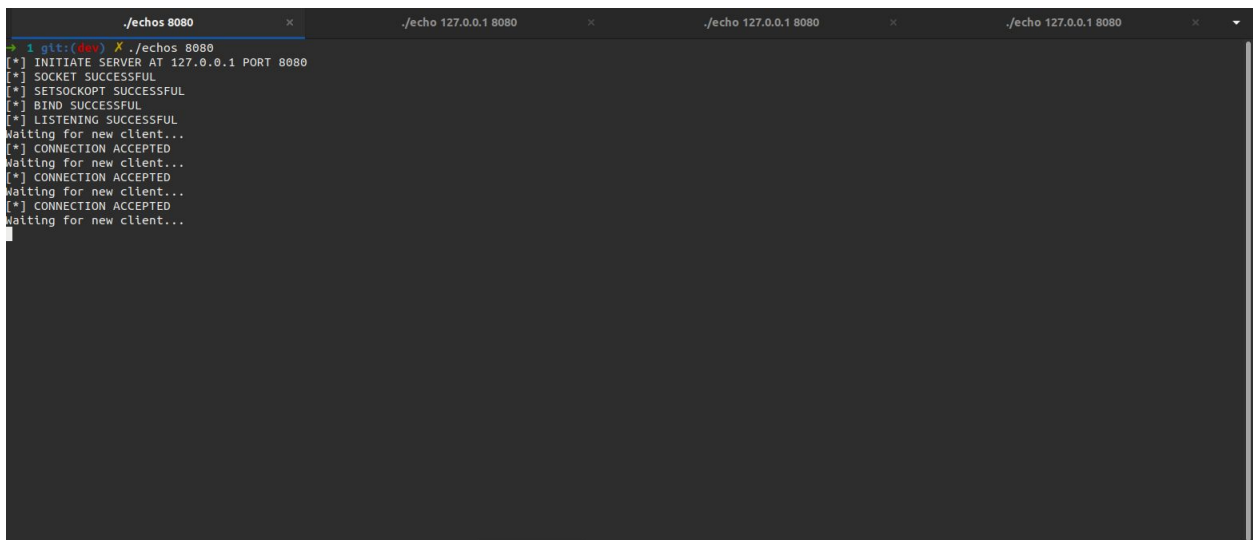
Starting the second client



A terminal window with four tabs: `./echos 8080`, `./echo 127.0.0.1 8080`, `./echo 127.0.0.1 8080`, and `./echo 127.0.0.1 8080`. The active tab is `./echo 127.0.0.1 8080`. The output shows the client successfully connecting to the server and entering a message.

```
→ 1 git:(dev) X ./echo 127.0.0.1 8080
[+] ECHO 127.0.0.1
[+] SOCKET CREATED
[+] CONNECTED TO SERVER
Enter message: 
```

Starting the third client



A terminal window with four tabs: `./echos 8080`, `./echo 127.0.0.1 8080`, `./echo 127.0.0.1 8080`, and `./echo 127.0.0.1 8080`. The active tab is `./echos 8080`. The output shows the server successfully starting and accepting three connections.

```
→ 1 git:(dev) X ./echos 8080
[*] INITIATE SERVER AT 127.0.0.1 PORT 8080
[*] SOCKET SUCCESSFUL
[*] SETSOCKET SUCCESSFUL
[*] BIND SUCCESSFUL
[*] LISTENING SUCCESSFUL
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
```

The server's output after the three clients have joined

```
parsa@parsa-MS-7C91:~/Documents/code/ECEN602/1
./echos 8080 x parsa@parsa-MS-7C91:~/D... x ./echo 127.0.0.1 8080 x ./echo 127.0.0.1 8080 x
→ 1 git:(dev) X ./echo 127.0.0.1 8080
[+] ECHO 127.0.0.1
[+] SOCKET CREATED
[+] CONNECTED TO SERVER
Enter message: hello
[+] MSG SENT: hello

[+] MSG RECIEVED: hello
[+] CONNECTION TO SERVER CLOSED
→ 1 git:(dev) X
```

Sending a message from the first client to the server

```
./echos 8080 x parsa@parsa-MS-7C91:~/D... x ./echo 127.0.0.1 8080 x ./echo 127.0.0.1 8080 x
→ 1 git:(dev) X ./echos 8080
[*] INITIATE SERVER AT 127.0.0.1 PORT 8080
[*] SOCKET SUCCESSFUL
[*] SETSOCKOPT SUCCESSFUL
[*] BIND SUCCESSFUL
[*] LISTENING SUCCESSFUL
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[+] MSG RECIEVED: hello

[+] MSG SENT: hello
```

Output of the server from the first client's message

```
parsa@parsa-MS-7C91:~/Documents/code/ECEN602/1
./echos 8080
→ 1 git:(dev) X ./echo 127.0.0.1 8080
[+] ECHO 127.0.0.1
[+] SOCKET CREATED
[+] CONNECTED TO SERVER
Enter message: goodbye
[+] MSG SENT: goodbye

[+] MSG RECIEVED: goodbye
^C
[+] CONNECTION TO SERVER CLOSED
→ 1 git:(dev) X
```

Sending a message from the second client to the server

```
./echos 8080
→ 1 git:(dev) X ./echos 8080
[*] INITIATE SERVER AT 127.0.0.1 PORT 8080
[*] SOCKET SUCCESSFUL
[*] SETSOCKOPT SUCCESSFUL
[*] BIND SUCCESSFUL
[*] LISTENING SUCCESSFUL
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[+] MSG RECIEVED: hello

[+] MSG SENT: hello

[+] MSG RECIEVED: goodbye
^C
[+] MSG SENT: goodbye
^C
```

Output of the server from the second client's message

```
parsa@parsa-MS-7C91:~/Documents/code/ECEN602/1
./echos 8080
→ 1 git:(dev) X ./echo 127.0.0.1 8080
[+] ECHO 127.0.0.1
[+] SOCKET CREATED
[+] CONNECTED TO SERVER
Enter message: hello
[+] MSG SENT: hello

[+] MSG RECIEVED: hello

[+] CONNECTION TO SERVER CLOSED
→ 1 git:(dev) X
```

Sending a message from the third client to the server

```
./echos 8080
→ 1 git:(dev) X ./echos 8080
[*] INITIATE SERVER AT 127.0.0.1 PORT 8080
[*] SOCKET SUCCESSFUL
[*] SETSOCKOPT SUCCESSFUL
[*] BIND SUCCESSFUL
[*] LISTENING SUCCESSFUL
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[*] CONNECTION ACCEPTED
Waiting for new client...
[+] MSG RECIEVED: hello

[+] MSG SENT: hello

[+] MSG RECIEVED: goodbye
od1o>
[+] MSG SENT: goodbye
od1o>
[+] MSG RECIEVED: hello

[+] MSG SENT: hello
```

Output of the server from the third client's message