

# CSCI 354 Discussion Note 03

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Discussion Question:

Update your message handler in Chattrbox so that every message received is sent twice to each user. Test it out using wscat and confirm that each message is repeated.

Achieved this by just  
doubling  
clientSocket.send(data);

```
1  var WebSocket = require('ws');
2  var WebSocketServer = WebSocket.Server;
3  var port = 3001;
4  var ws = new WebSocketServer({
5    port: port
6  });
7
8  var messages = [];
9  console.log('websockets server started');
10
11 ws.on('connection', function (socket) {
12   console.log('client connection established');
13
14   messages.forEach(function (msg) {
15     socket.send(msg);
16   });
17
18   socket.on('message', function (data) {
19     console.log('message received: ' + data);
20
21     messages.push(data);
22
23     |
24   ws.clients.forEach(function (clientSocket) {
25     clientSocket.send(data);
26     clientSocket.send(data);
27   });
28 });
29 });
30
31
```

The output is demonstrated below across the visible terminals

```
File Edit View Search Terminal Help
~/Desktop/schoolwork current/web prog
ramming/discussion note 3/chatterbox discussion note 3$ npm run dev
> chatterbox-jan-10-class-code@1.0.0 dev
> nodemon index.js

[nodemon] 3.0.2
[nodemon] to restart at any time, enter 'rs'
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,cjs,json
[nodemon] starting 'node index.js'
websockets server started
client connection established
client connection established
client connection established
message received: message that will be doubled across all terminals
>

File Edit View Search Terminal Help
~/Desktop/schoolwork current/web prog
ramming/discussion note 3/chatterbox discussion note 3$ wscat -c ws://localhost:3001
Connected (press CTRL+C to quit)
> message that will be doubled across all terminals
< message that will be doubled across all terminals
< message that will be doubled across all terminals
>

File Edit View Search Terminal Help
~/Desktop/schoolwork current/web prog
ramming/discussion note 3/chatterbox discussion note 3$ wscat -c ws://localhost:3001
Connected (press CTRL+C to quit)
> message that will be doubled across all terminals
< message that will be doubled across all terminals
< message that will be doubled across all terminals
>
```

For a really interesting effect, increment the number of repetitions by one each time a new message is sent.

Achieved this by calling `clientSocket.send(data);` for every msg in messages

Output is demonstrated below across the visible terminals

```
JS websockets-server.js x
websockets-server.js > ws.on('connection') callback > socket.on('message') callback
1 var WebSocket = require('ws');
2 var WebSocketServer = WebSocket.Server;
3 var port = 3001;
4 var ws = new WebSocketServer({
5   port: port
6 });
7
8 var messages = [];
9 console.log('websockets server started');
10
11 ws.on('connection', function (socket) {
12   console.log('client connection established');
13
14   messages.forEach(function (msg) {
15     socket.send(msg);
16   });
17
18   socket.on('message', function (data) {
19     console.log('message received: ' + data);
20
21     messages.push(data);
22
23     ws.clients.forEach(function (clientSocket) {
24       messages.forEach(function (msg) {
25         clientSocket.send(msg);
26       });
27     });
28   });
29 });
30
```

