

CSCI 354 Discussion Note 03

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Discussion Question:

Update your message handler in Chatrbox 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
25   |   ws.clients.forEach(function (clientSocket) {
26     |   clientSocket.send(data);
27     |   clientSocket.send(data);
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] 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
[]

:~/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
> []

:~/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
> []

:~/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
> []

```

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

```

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(data);
26       });
27     });
28   });
29 });
30

```

```
File Edit View Search Terminal Help
message received: one
message received: two
[nodemon] restarting due to changes...
[nodemon] starting node index.js
websocket server started
client connection established
client connection established
client connection established
message received: this will send once
message received: this will send once
message received: this will send once
message received: clear
[nodemon] restarting due to changes...
[nodemon] starting node index.js
websockets server started
client connection established
client connection established
client connection established
message received: this will send once
message received: this will send twice
message received: this will send thrice
message received: quad send
message received: five
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)
> this will send once
< this will send once
> this will send twice
< this will send twice
> this will send thrice
< this will send thrice
> this will send thrice
< this will send thrice
> this will send thrice
< this will send thrice
> quad send
< quad send
> quad send
< quad send
> quad send
< quad send
> five
< five
< five
< five
< five
< five
> quad send
< five
< five
< five
< five
< five
> 
```

```
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)
> this will send once
< this will send once
> this will send twice
< this will send twice
> this will send thrice
< this will send thrice
> this will send thrice
< this will send thrice
> this will send thrice
< this will send thrice
> quad send
< quad send
> quad send
< quad send
> quad send
< quad send
> five
< five
< five
< five
< five
< five
> 
```