

## Server:

```
const net = require('net');

const server = net.createServer(socket => {

  console.log('Client connected:', socket.remoteAddress, socket.remotePort);

  socket.on('data', data => {

    const message = data.toString().trim();

    console.log('Received from client:', message);

    const response = generateResponse(message);

    socket.write(response);

  });

  socket.on('end', () => {

    console.log('Client disconnected:', socket.remoteAddress, socket.remotePort);

  });

});

const PORT = 12345;

server.listen(PORT, () => {

  console.log(`Server listening on port ${PORT}`);

});

function generateResponse(inputMessage) {

  const responses = {

    hi: "Hello! How can I assist you?",

    hello: "Hello! How can I assist you?",

    "how are you": "I'm just a server, but I'm here to help!",

    bye: "Goodbye! Have a great day!",

    "": "I'm here to chat. Say something!"

  };

  const response = responses[inputMessage.toLowerCase()] || "I'm not sure how to respond to that.";

  return response + '\n';

}
```

## Client:

```
const net = require('net');

const readline = require('readline');

const rl = readline.createInterface({
  input: process.stdin,
  output: process.stdout
});

const client = new net.Socket();

client.connect(12345, '127.0.0.1', () => {
  console.log('Connected to server');
  rl.setPrompt('You: ');
  rl.prompt();
});

client.on('data', data => {
  console.log('Server:', data.toString());
  rl.prompt();
});

rl.on('line', line => {
  client.write(line);
});

rl.on('close', () => {
  console.log('Connection closed');
  client.end();
});

client.on('close', () => {
  console.log('Disconnected from server');
  process.exit(0);
});
```

## Output:

**Server:**

Server listening on port 12345

Client connected: ::ffff:127.0.0.1 54420

Received from client: hello

Received from client: how are you

**Client:**

Connected to server

You: hello

Server: Hello! How can I assist you?

You: how are you

Server: I'm just a server, but I'm here to help!