

RollNo. – 2022UIT3031

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Branch – Information Technology - 1

PRACTICAL-3

Create a client-server application and show the interaction using 2-way communication and handshaking.

CODES

package.json

```
{
  "name": "two-way-communication",
  "version": "1.0.0",
  "description": "A client-server application showing interaction using 2-way communication and handshaking.",
  "main": "index.js",
  "scripts": {
    "server": "node server.js",
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "author": "Rashid Siddiqui",
  "license": "ISC"
}
```

server.js

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

const server = net.createServer((socket) => {
  console.log('Client connected!');

  socket.write('Hello, Client! Ready to communicate?');

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

    const message = data.toString();
    console.log(`Client: ${message}`);
  });
});
```

```

        if (message.toLowerCase() === 'exit') {
            console.log('Client disconnected.');
```

`socket.end();`

```
        } else {
            process.stdout.write('Server: ');
            process.stdin.once('data', (input) => {
                socket.write(input.toString());
            });
        }
    });

    socket.on('end', () => {
        console.log('Connection closed by the client.');
```

`});`

```
});

server.listen(5000, '127.0.0.1', () => {
    console.log('Server is listening on port 5000...');
```

`});`

client.js

```

const net = require('net');

const client = net.createConnection({ port: 5000, host: '127.0.0.1' }, () => {
    console.log('Connected to the server.');
```

`});`

```
client.on('data', (data) => {
    const message = data.toString();
    console.log(`Server: ${message}`);

    if (message.toLowerCase() === 'exit') {
        console.log('Disconnected from server.');
```

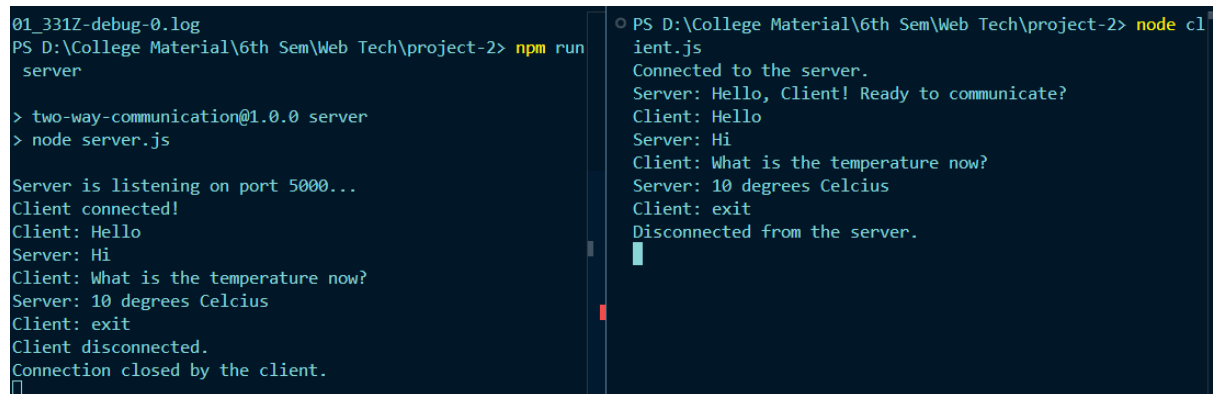
`client.end();`

```
    } else {
        process.stdout.write('Client: ');
        process.stdin.once('data', (input) => {
            client.write(input.toString());
        });
    }
});

client.on('end', () => {
    console.log('Disconnected from the server.');
```

`});`

Output Screenshot



```
01_331Z-debug-0.log
PS D:\College Material\6th Sem\Web Tech\project-2> npm run
server

> two-way-communication@1.0.0 server
> node server.js

Server is listening on port 5000...
Client connected!
Client: Hello
Server: Hi
Client: What is the temperature now?
Server: 10 degrees Celcius
Client: exit
Client disconnected.
Connection closed by the client.
█

PS D:\College Material\6th Sem\Web Tech\project-2> node cl
ient.js
Connected to the server.
Server: Hello, Client! Ready to communicate?
Client: Hello
Server: Hi
Client: What is the temperature now?
Server: 10 degrees Celcius
Client: exit
Disconnected from the server.
█
```