

## 1) Java code to Send message from client to server (TCP):

### Client Class:

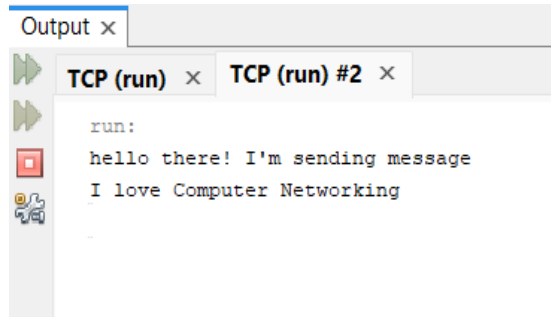
```
Source History
1 package tcp;
2
3 import java.io.*;
4 import java.net.*;
5
6 public class Message_client {
7
8     public static void main(String[] args) throws Exception {
9         Socket socket = new Socket("localhost", 9999);
10        DataOutputStream data_output = new DataOutputStream(socket.getOutputStream());
11        BufferedReader buffer_reader = new BufferedReader(new InputStreamReader(System.in));
12        while (true) {
13            String socket_output = buffer_reader.readLine();
14            data_output.writeUTF(socket_output);
15            if (socket_output.equalsIgnoreCase("exit")) {
16                break;
17            }
18        }
19        socket.close();
20    }
21 }
22
23
24
```

### Server Class:

```
Source History
1 package tcp;
2
3 import java.io.*;
4 import java.net.*;
5
6 public class Message_Server {
7
8     public static void main(String[] args) throws Exception {
9         ServerSocket server_socket = new ServerSocket(9999);
10        Socket socket = server_socket.accept();
11        System.out.println("Connected");
12        DataInputStream data_input = new DataInputStream(socket.getInputStream());
13        BufferedReader buffer_reader = new BufferedReader(new InputStreamReader(System.in));
14        while (true) {
15            String message = data_input.readUTF();
16            System.out.println("Client : " + message);
17            if (message.equalsIgnoreCase("exit")) {
18                break;
19            }
20        }
21        socket.close();
22    }
23 }
24
25
```

## Outputs:

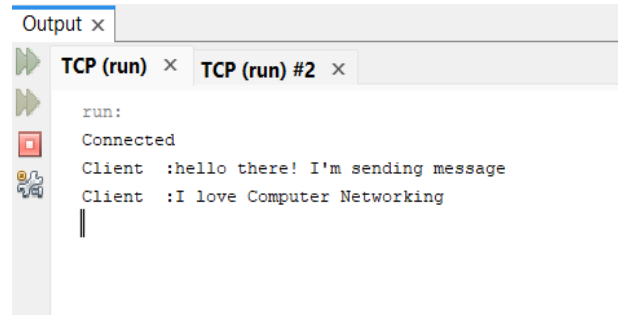
### Client



The Client Output window shows two tabs: 'TCP (run)' and 'TCP (run) #2'. The 'TCP (run)' tab is active and displays the following text:

```
run:  
hello there! I'm sending message  
I love Computer Networking  
.
```

### Server

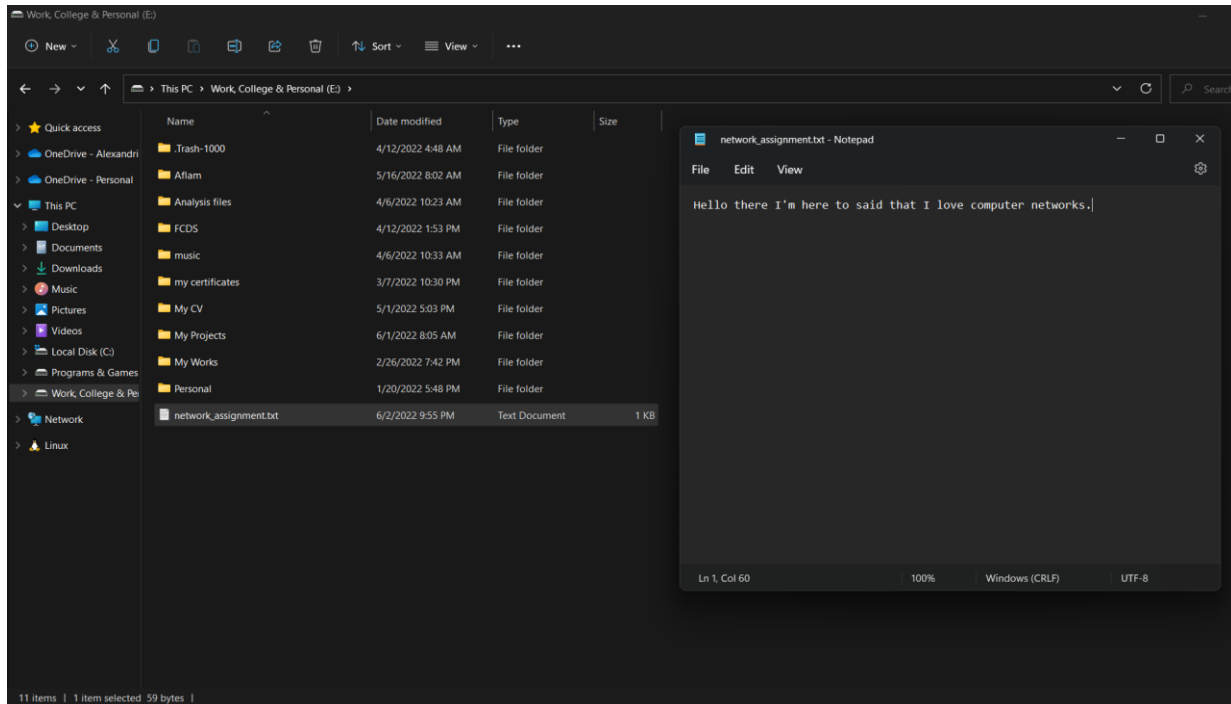


The Server Output window shows two tabs: 'TCP (run)' and 'TCP (run) #2'. The 'TCP (run)' tab is active and displays the following text:

```
run:  
Connected  
Client :hello there! I'm sending message  
Client :I love Computer Networking  
||
```

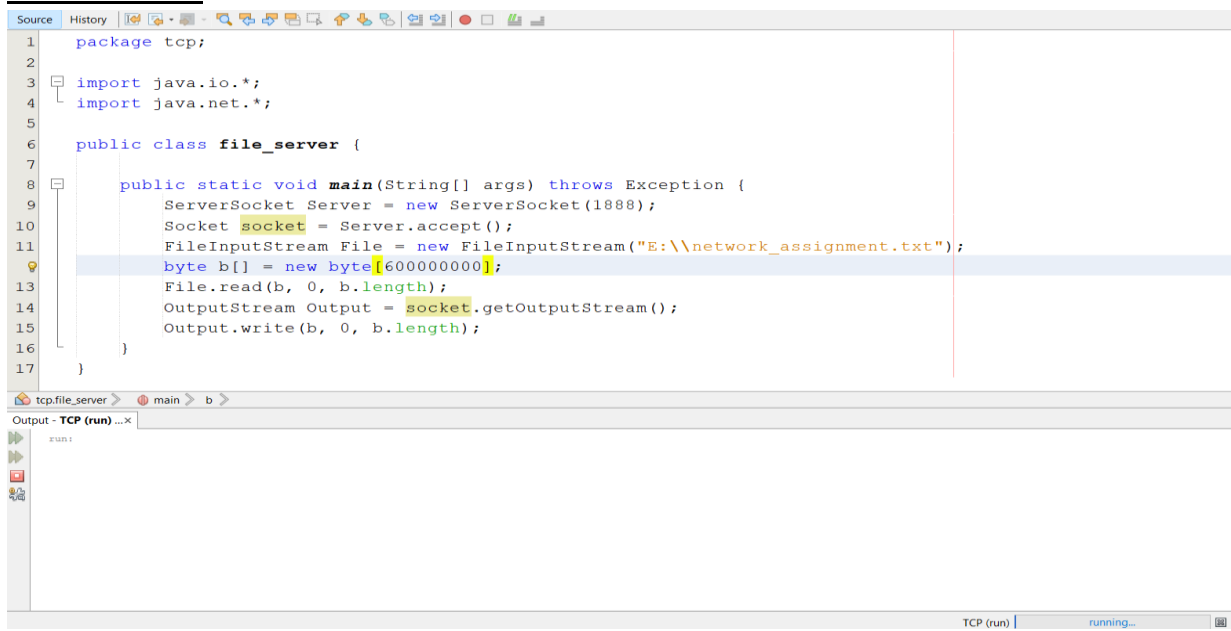
## 2) Java code to Send file (TCP):

### Create File:



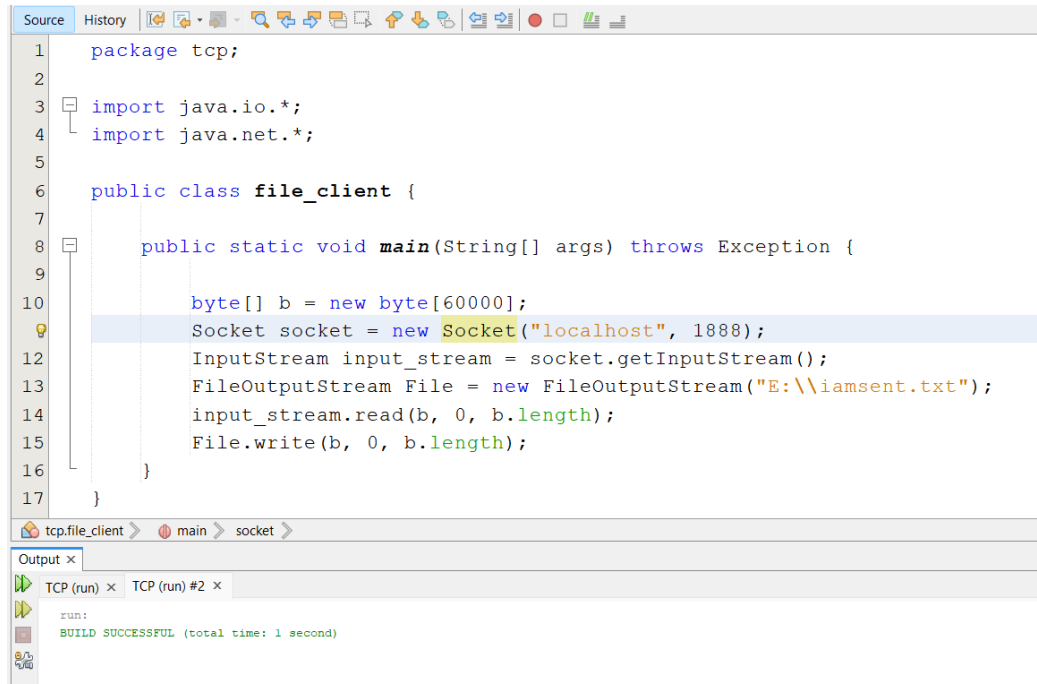
**I created txt file named 'network assignment' and put it's path into server class.**

### Server Class:



**Then I run the client class and it created file into code named 'Iam sent' to the specific path.**

### **Client class:**



```
1 package tcp;
2
3 import java.io.*;
4 import java.net.*;
5
6 public class file_client {
7
8     public static void main(String[] args) throws Exception {
9
10         byte[] b = new byte[60000];
11         Socket socket = new Socket("localhost", 1888);
12         InputStream input_stream = socket.getInputStream();
13         FileOutputStream File = new FileOutputStream("E:\\iamsent.txt");
14         input_stream.read(b, 0, b.length);
15         File.write(b, 0, b.length);
16     }
17 }
```

tcp.file\_client > main > socket >

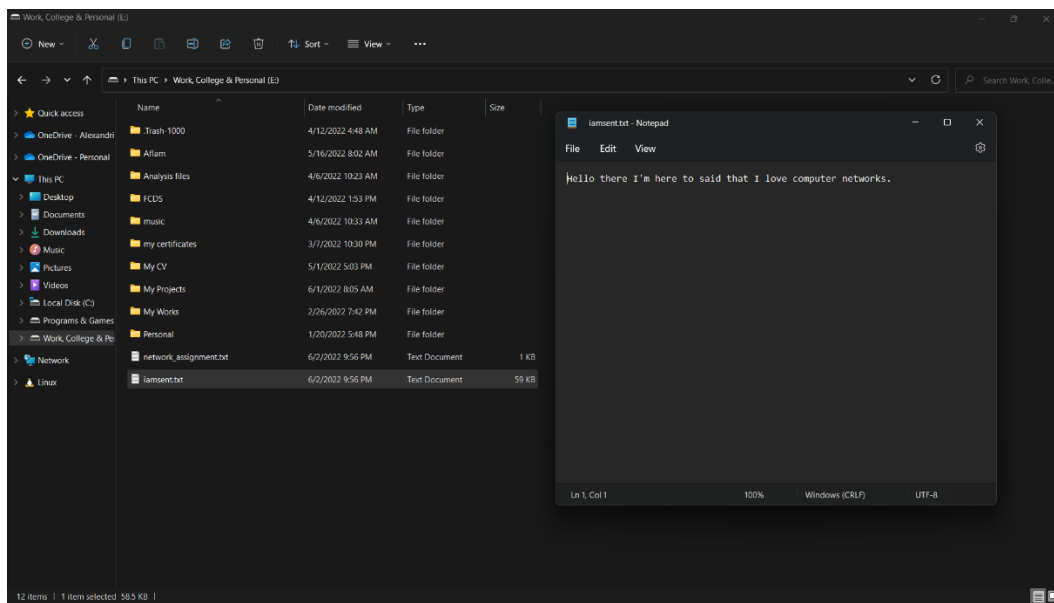
Output x

TCP (run) x TCP (run) #2 x

Run:

BUILD SUCCESSFUL (total time: 1 second)

**After running code successfully, file created in the path which I wrote in the code, and the information of 'network assignment' file copied to the new file.**



***Thank You***