

The execution steps provided below detail how to run the Java Server and Client programs (FileTransferServer.java and FileTransferClient.java) in VS Code's integrated terminal.

You must run these programs concurrently in separate terminal instances.

1. Preparation and Setup

1. **Code and File Placement:** Ensure both Java files (FileTransferServer.java and FileTransferClient.java) and a test file (e.g., test_file.txt) are saved in the same folder.
2. **Test File Creation:** Create a file named test_file.txt in that folder with some content. The server will send this content when requested by the client.
3. **Open VS Code Terminal:** Open the folder in VS Code and open the integrated **Terminal** (Terminal > New Terminal).
4. **Compilation:** Compile both Java files using the javac command.

```
javac FileTransferServer.java FileTransferClient.java
```

2. Execution Steps

You need two separate terminal instances to run the server and client simultaneously.

Step A: Start the Server (Terminal 1)

1. Use the **First Terminal** to run the server program. This program will start listening on port **1238** and wait for a client connection

```
java FileTransferServer
```

2. Expected Server Output (Initial):

TCP Server started and listening on port 1238...

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Bash

```
javac FileTransferServer.java FileTransferClient.java
```

This creates the necessary .class files.

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Bash

```
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2. **Expected Server Output (Initial):**
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Step B: Start the Client (Terminal 2)

1. Open a **Second Terminal** in VS Code (Terminal > New Terminal).
2. Run the client program, passing two arguments:

- **Argument 1 (Server Name):** Use localhost or 127.0.0.1 since the server is running on the same computer.
- **Argument 2 (File Name):** Use the name of the file you want to transfer (e.g., test_file.txt).

```
java FileTransferClient localhost test_file.txt
```

Get the Absolute Path of the File:

- **Windows:** Right-click the file (test_file.txt) in File Explorer, and copy its "Copy as path."

```
C:\Users\User\Desktop\TCP>java FileTransferClient localhost  
"C:\Users\User\Desktop\TCP\test_file.txt.txt"
```

```
Picked up JAVA_TOOL_OPTIONS: -Dstdout.encoding=UTF-8 -  
Dstderr.encoding=UTF-8
```

```
welcome to Kishkinda University
```

```
C:\Users\User\Desktop\TCP>
```