

# CS655-Network

## Programming Assignment1 – Part1

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### 1. Result

Code from client:

We try to send a “hello” message to server.

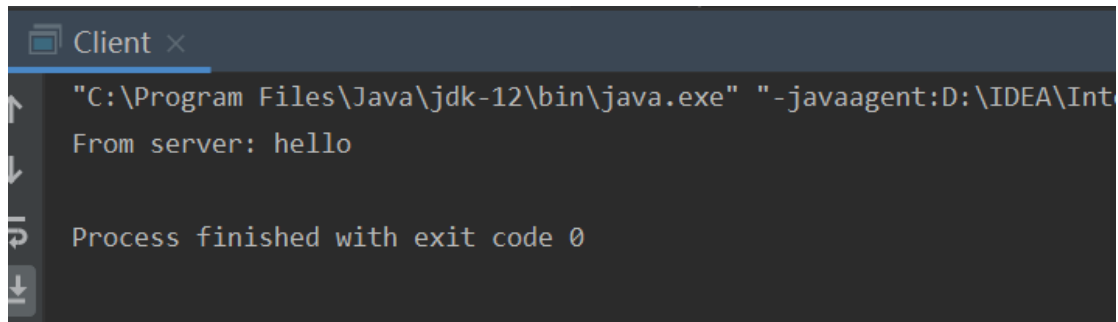
```
public void run() {  
    try {  
        String request = "hello\n";  
        bw.write(request);  
        bw.flush();  
        String response = br.readLine();  
        System.out.println(response);  
    } catch (IOException e) {  
        e.printStackTrace();  
    } finally {  
        try {  
            if (socket != null) {  
                socket.close();  
            }  
        } catch (IOException e) {  
            e.printStackTrace();  
        }  
    }  
}
```

Code from sever:

```
public void run() {  
    try {  
        // exchange data  
        String request = null;  
        request = br.readLine();  
        String response = "From server: " + request + "\n";  
        bw.write(response);  
        bw.flush();  
    } catch (IOException e) {
```

Result from client:

We get back the same message “hello” from the server successfully.



```
Client x
"C:\Program Files\Java\jdk-12\bin\java.exe" "-javaagent:D:\IDEA\Int
From server: hello

Process finished with exit code 0
```

## 2. Implements

The socket program is implemented in Java with usage of Socket interface. By the accept() function, ServerSocket listens an assigned port and waits for clients to connect. Client could connect to the server directly by IP address (as server ‘s hostname) and the port. Then we could exchange data in a very simple and intuitive way.

We use BufferedWriter and BufferedReader as IO Stream manager to avoid transport congestion.

We test our programs on our Microsoft Windows system with memory of 8 GB.

Client IP: 192.168.7.93

Server IP: 192.168.7.96