Practical No :- 1

Aim :- Create, debug and execute programs based on Socket and server socket.

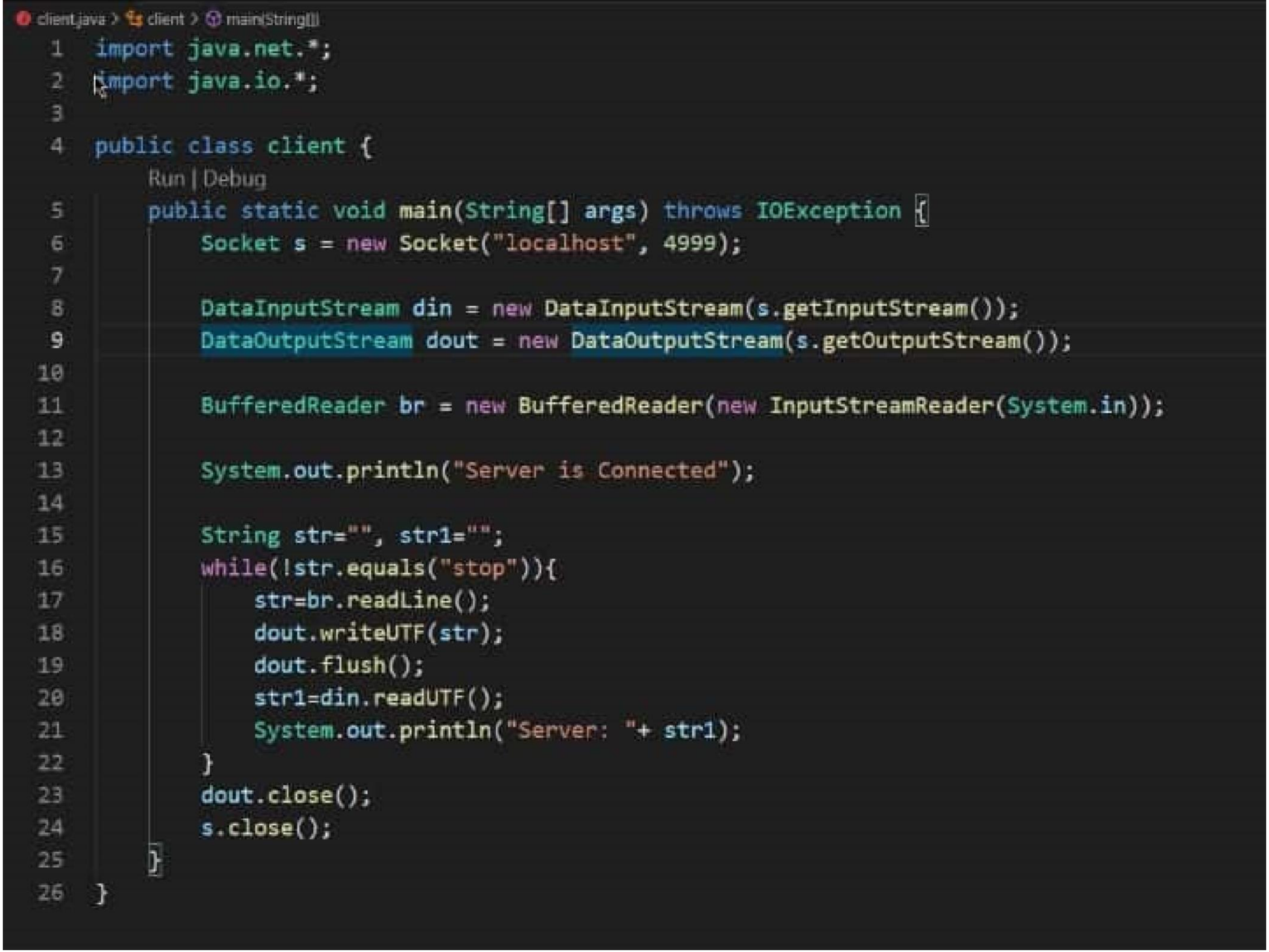
Theory :-

The java.net package in java platform provides a class socket which is used to implement one side of a two-way communication connection between your java program.

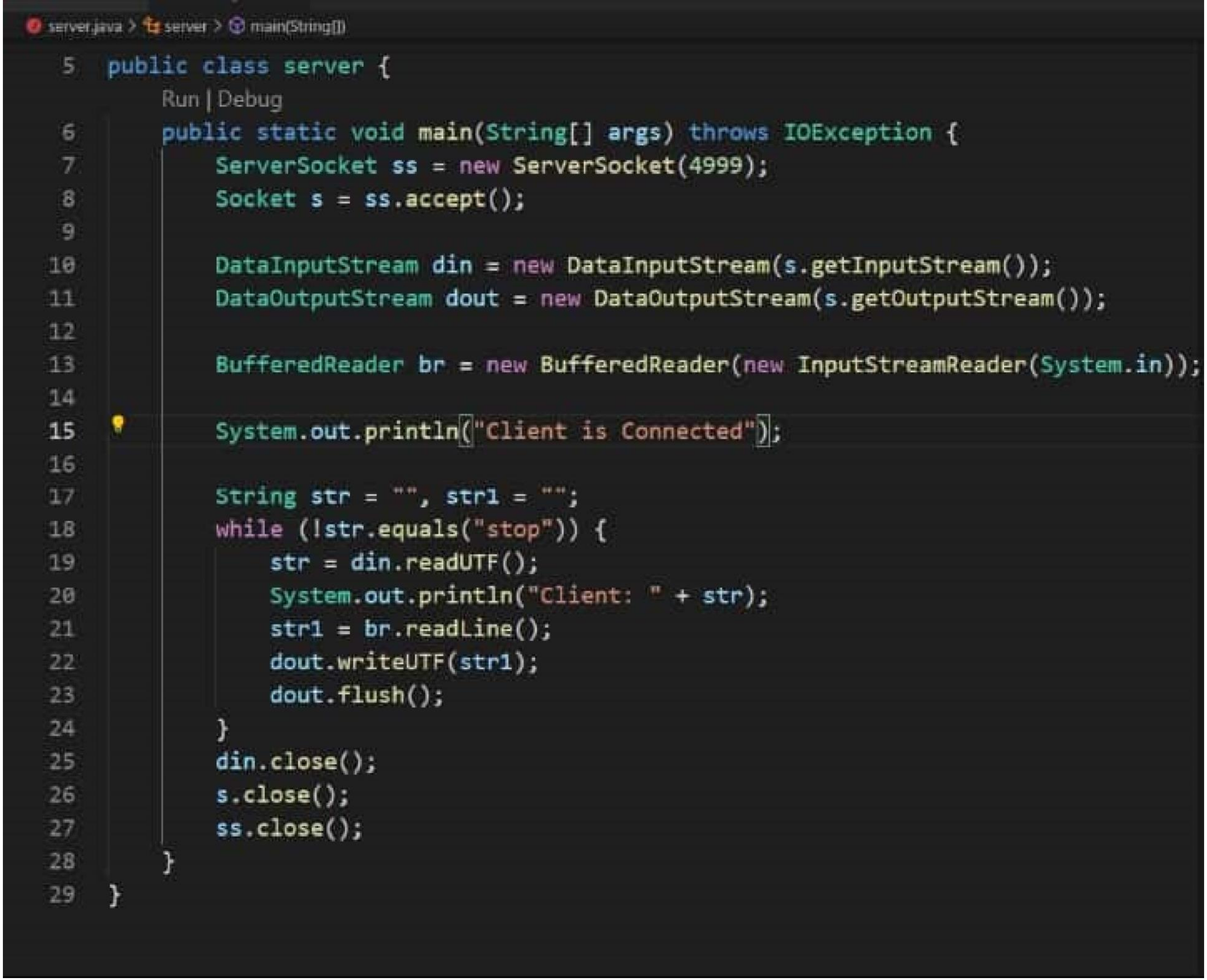
The socket class sits on top of a platform, dependent implementation, hiding the details of any particular system from your java program.

Additionaly, java.net includes then server socket class used to implement a socket that servers can use to listen For and accept connections to clients.

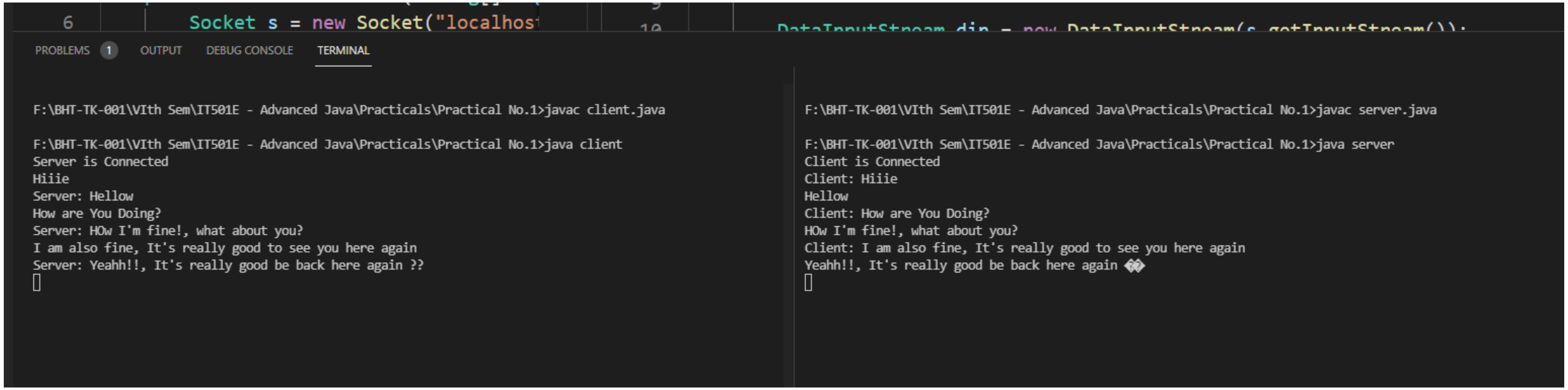
Programs :-



```java
import java.net.*;
import java.io.*;

public class client {
    public static void main(String[] args) throws IOException {
        Socket s = new Socket("localhost", 4999);

        DataInputStream din = new DataInputStream(s.getInputStream());
        DataOutputStream dout = new DataOutputStream(s.getOutputStream());

        BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

        System.out.println("Server is Connected");

        String str="", str1="";
        while(!str.equals("stop")){
            str=br.readLine();
            dout.writeUTF(str);
            dout.flush();
            str1=din.readUTF();
            System.out.println("Server: "+ str1);
        }
        dout.close();
        s.close();
    }
}
```



```java
public class server {
    public static void main(String[] args) throws IOException {
        ServerSocket ss = new ServerSocket(4999);
        Socket s = ss.accept();

        DataInputStream din = new DataInputStream(s.getInputStream());
        DataOutputStream dout = new DataOutputStream(s.getOutputStream());

        BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

        System.out.println("Client is Connected");

        String str = "", str1 = "";
        while (!str.equals("stop")) {
            str = din.readUTF();
            System.out.println("Client: " + str);
            str1 = br.readLine();
            dout.writeUTF(str1);
            dout.flush();
        }
        din.close();
        s.close();
        ss.close();
    }
}
```



```
Socket s = new Socket("localhos
```

```
DataInputStream din = new DataInputStream(s.getInputStream());
```

```
F:\BHT-TK-001\VIth Sem\IT501E - Advanced Java\Practicals\Practical No.1>javac client.java

F:\BHT-TK-001\VIth Sem\IT501E - Advanced Java\Practicals\Practical No.1>java client
Server is Connected
Hiiie
Server: Hellow
How are You Doing?
Server: HOw I'm fine!, what about you?
I am also fine, It's really good to see you here again
Server: Yeahh!!, It's really good be back here again ??
```

```
F:\BHT-TK-001\VIth Sem\IT501E - Advanced Java\Practicals\Practical No.1>javac server.java

F:\BHT-TK-001\VIth Sem\IT501E - Advanced Java\Practicals\Practical No.1>java server
Client is Connected
Client: Hiiie
Hellow
Client: How are You Doing?
HOw I'm fine!, what about you?
Client: I am also fine, It's really good to see you here again
Yeahh!!, It's really good be back here again ��
```