

Computer Networks

Assignment 2

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Code for Server:

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

public class Server{

    private Socket socket = null;
    private ServerSocket server = null;
    private DataInputStream in = null;

    public Server(int port){

        try{

            server = new ServerSocket(port);

            System.out.println("Server started");
            System.out.println("Waiting for a client ...");

            socket = server.accept();
            System.out.println("Client accepted");

            in = new DataInputStream(
                new BufferedInputStream(socket.getInputStream()));
            String line = "";

            while (!line.equals("Over")){
                try{
                    line = in.readUTF();
                    System.out.println(line);
                }catch(IOException i){
                    System.out.println("Lost connection with socket!");
                    break;
                }
            }
            System.out.println("Closing connection");
            socket.close();
            in.close();
        }catch(IOException i){
            System.out.println(i);
        }
    }

    public static void main(String args[]){
        Server server = new Server(5000);
    }
}
```

Code for Client:

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

public class Client{

    private Socket socket = null;
    private DataInputStream input = null;
    private DataOutputStream out = null;

    public Client(String address, int port){

        try{
            socket = new Socket(address, port);
            System.out.println("Connected");
            input = new DataInputStream(System.in);
            out = new DataOutputStream(socket.getOutputStream());
        }catch(UnknownHostException u){
            System.out.println("Unable to connect! Unknown host!");
        }catch(IOException i){
            System.out.println("Invalid Input by User!");
        }
    }

    String line = "";
    while (!line.equals("Over")){
        try{
            line = input.readLine();
            out.writeUTF(line);
        }catch(IOException i){
            System.out.println("Invalid Input by User!");
        }
    }

    try{
        input.close();
        out.close();
        socket.close();
    }catch(IOException i){
        System.out.println(i);
    }

}

public static void main(String args[]){
    Client client = new Client("127.0.0.1", 5000);
}
}
```

Output:

```
krhero@hellblazer:/mnt/0FB812900FB81290/BTech/Assignments/3rd_Year/CN/Assignment2$ java Client.java
Note: Client.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
Connected
Hi
Hello World
Well,everything that I sent is being received by the server!
Over
krhero@hellblazer:/mnt/0FB812900FB81290/BTech/Assignments/3rd_Year/CN/Assignment2$ 
1: bash

krhero@hellblazer:/mnt/0FB812900FB81290/BTech/Assignments/3rd_Year/CN/Assignment2$ java Server.java
Server started
Waiting for a client ...
Client accepted
Hi
Hello World
Well,everything that I sent is being received by the server!
Over
Closing connection
```