

```
/*
```

```
Topic :Servlet
```

Question 18: Write a java program to create an eco server for communication between client and server.

```
*/
```

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

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

```
class TCPServer {
```

```
    public static void main(String args[]) {
```

```
        ServerSocket echoServer = null;
```

```
        String line;
```

```
        DataInputStream is; //reading from socket
```

```
        PrintStream os; // writing on socket
```

```
        Socket clientSocket = null;
```

```
        try {
```

```
            echoServer = new ServerSocket(9999);
```

```
        }
```

```
        catch (IOException e) {
```

```
            System.out.println(e);
```

```
        }
```

```
            System.out.println("Server started waiting for client");
```

```
        try {
```

```
            clientSocket = echoServer.accept();
```

```
            is = new DataInputStream(clientSocket.getInputStream());
```

```
            os = new PrintStream(clientSocket.getOutputStream());
```

```
// As long as we receive data, echo that data back to the client.
```

```
            while (true) {
```

```
                line = is.readLine();
```

```
                System.out.println(line.toUpperCase());
```

```
                os.println(line.toUpperCase());
```

```
            }
```

```
        }
```

```
        catch (IOException e) {
```

```
            System.out.println(e);
```

```
        }
```

```
    }
```

```
}
```

```

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

public class TCPClient {

    public static void main(String[] args) {

        Socket theSocket;
        String hostname;
        DataInputStream theInputStream; // reading from socket
        DataInputStream userInput; // reading from keyboard
        PrintStream theOutputStream; // writing on socket
        String theLine;

        if (args.length > 0) {
            hostname = args[0];
        }
        else {
            hostname = "localhost";
        }

        try {
            theSocket = new Socket("172.16.1.147", 9999);
            System.out.println(hostname + ": connected with server: 192.168.1.2 ");
            System.out.println(hostname + ": can start interaction with client ");
            theInputStream = new DataInputStream(theSocket.getInputStream());
            theOutputStream = new PrintStream(theSocket.getOutputStream());
            userInput = new DataInputStream(System.in);
            while (true) {
                theLine = userInput.readLine();
                if (theLine.equals(".")) break;
                theOutputStream.println(theLine);
                System.out.println(theInputStream.readLine());
            }
        } // end try
        catch (UnknownHostException e) {
            System.err.println(e);
        }
        catch (IOException e) {

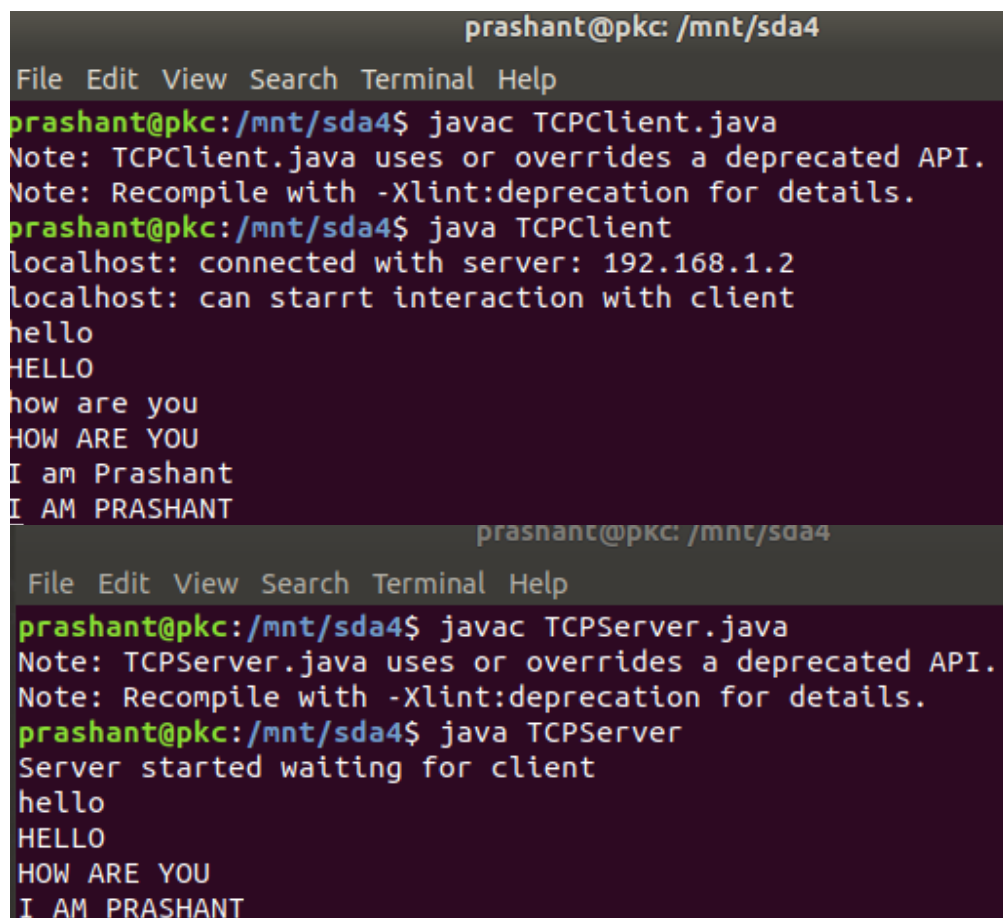
```

```
        System.err.println(e);
    }

} // end main

} // end echoClient
```

Output



```
prashant@pkc: /mnt/sda4
File Edit View Search Terminal Help
prashant@pkc:/mnt/sda4$ javac TCPClient.java
Note: TCPClient.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
prashant@pkc:/mnt/sda4$ java TCPClient
localhost: connected with server: 192.168.1.2
localhost: can start interaction with client
hello
HELLO
how are you
HOW ARE YOU
I am Prashant
I AM PRASHANT

prashant@pkc: /mnt/sda4
File Edit View Search Terminal Help
prashant@pkc:/mnt/sda4$ javac TCPServer.java
Note: TCPServer.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
prashant@pkc:/mnt/sda4$ java TCPServer
Server started waiting for client
hello
HELLO
HOW ARE YOU
I AM PRASHANT
```