```
/*
   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);
          }
      }
}
```

```java
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 starrt 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) {
```
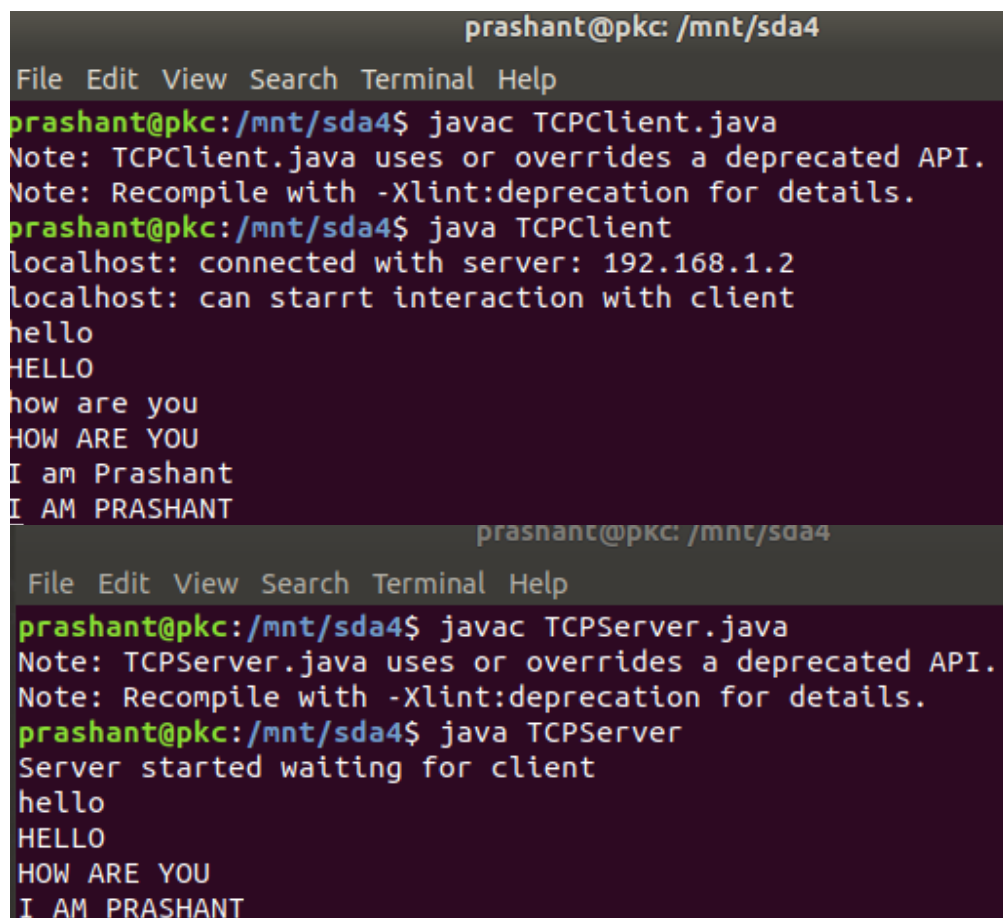
```
        System.err.println(e);
    }

  }   // end main

}   // end echoClient
```

Output