

TCPServer.java

```

1 package tcp;
2
3 import java.net.*;
4
5
6 public class TCPServer {
7
8     public ServerSocket listenSocket = null;
9     public InetAddress address = null;
10
11     public TCPServer(InetAddress address) {
12         this.address = address;
13     }
14
15     public void start() {
16         try {
17             this.listenSocket = new ServerSocket();
18             this.listenSocket.bind(address);
19
20             System.out.println("TCP Server started!");
21
22             while (true) {
23                 Socket serviceSocket = listenSocket.accept();
24                 Thread newServiceThread = new Thread(new Service(serviceSocket));
25                 newServiceThread.start();
26             }
27         }
28
29         catch (Exception e) {
30             e.printStackTrace();
31         }
32     }
33 }
34
35 private class Service implements Runnable {
36     Socket serviceSocket = null;
37     ObjectInputStream in = null;
38     ObjectOutputStream out = null;
39
40     private Service(Socket serviceSocket) {
41         try {
42             this.serviceSocket = serviceSocket;
43             this.in = new ObjectInputStream(this.serviceSocket.getInputStream());
44             this.out = new ObjectOutputStream(this.serviceSocket.getOutputStream());
45             this.out.flush();
46         } catch (Exception e) {
47             e.printStackTrace();
48         }
49     }
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```

59     public void run() {
60         try {
61             while (true) {
62                 /* Receive message from the client */
63                 String message = (String) in.readObject();
64                 System.out.println("Server Received:" + message);
65
66                 /* Echo the message back to the client */
67                 out.writeObject(message);
68             }
69         }
70
71         catch (Exception e) {
72             e.printStackTrace();
73         }
74
75         finally {
76             if (serviceSocket != null)
77
78                 try {
79                     serviceSocket.close();
80                 }
81
82                 catch (Exception e) {
83                     e.printStackTrace();
84                 }
85         }
86     }
87 }
88
89
90 public static void main(String args[]) {
91     int port = 3000;
92     InetAddress serverAddress = new InetAddress(port);
93
94     TCPServer server = new TCPServer(serverAddress);
95     server.start();
96 }
97 }
98

```