```
package thread;
import static org. hamcrest. CoreMatchers. nullValue;
import java. io. IOException;
import java. io. InputStream;
import java. io. OutputStream;
import java.net.InetAddress;
import java. net. ServerSocket;
import java.net.Socket;
import java. util. Scanner;
import org. junit. Test;
public class tcp1 {
@Test
public void test1() {
        Socket socket = null;
        OutputStream oStream = null;
        Scanner scanner = null:
        InputStream iStream = null;
        try {
                socket = new Socket (InetAddress.getByName ("127.0.0.1"), 9090);
                oStream = socket.getOutputStream();
                System. out. println("请输入多个字符:");
                 scanner= new Scanner(System.in);
                String string =scanner.next();
                oStream. write (string. getBytes());
                //接受来自服务端的信息
                socket. shutdownOutput();
                iStream = socket.getInputStream();
                byte []b = new byte[1024];
                int len:
                while((len =iStream .read(b)) != -1) {
                        String string2 = new String(b, 0, 1en);
```

```
System. out. println(string2);
        }
} catch (Exception e) {
        // TODO: handle exception
        e.printStackTrace();
}
finally {
        if (scanner != null) {
                scanner.close();
        }
        if (iStream != null) {
                try {
                         iStream. close();
                } catch (IOException e) {
                         // TODO Auto-generated catch block
                         e. printStackTrace();
                }
        }
        if (socket != null) {
                try {
                         socket.close();
                } catch (IOException e) {
                         // TODO Auto-generated catch block
                         e.printStackTrace();
                }
        }
        if (oStream != null) {
                try {
                         oStream.close();
                } catch (IOException e) {
                         // TODO Auto-generated catch block
                         e.printStackTrace();
                }
        }
}
```

```
}
@Test
public void test2() {
        ServerSocket ssSocket = null;
        Socket socket = null;
        InputStream iStream = null;
        String string1 = null;
        OutputStream oStream = null;
        try {
                ssSocket = new ServerSocket (9090);
                socket = ssSocket.accept();
                iStream = socket.getInputStream();
                byte [] b = new byte[1024];
                int len;
                while ((len = iStream. read(b)) != -1) {
                        String string = new String(b, 0, 1en);
                        string1 += string;
                String s1 = string1.toUpperCase();
                //返回给客户端
                  oStream= socket.getOutputStream();
                oStream.write(s1.getBytes());
                System. out. println(string1);
                System. out. println(s1);
                socket. shutdownOutput();
        } catch (Exception e) {
                // TODO: handle exception
                e. printStackTrace();
        }
        finally {
                if (iStream != null) {
                        try {
                                 iStream. close();
                        } catch (IOException e) {
                                 // TODO Auto-generated catch block
```

```
}
                }
                if (socket != null) {
                         try {
                                 socket.close();
                         } catch (IOException e) {
                                 // TODO Auto-generated catch block
                                 e.printStackTrace();
                }
                if (ssSocket != null) {
                         try {
                                 ssSocket.close();
                         } catch (IOException e) {
                                 // TODO Auto-generated catch block
                                 e. printStackTrace();
                         }
                }
                if (oStream != null) {
                         try {
                                 oStream.close();
                         } catch (IOException e) {
                                 // TODO Auto-generated catch block
                                 e.printStackTrace();
                         }
                }
        }
}
}
```

e.printStackTrace();