

ID	Модуль	Название	Приоритет	Предварительные условия	Тестовые данные	Шаги теста	Ожидаемый результат
t001	Display of connecting process message in TCP Chat Client text field	Display of connecting process message in TCP Chat Client text field	High	1. The user Tom Morello with IP address 127.9.12.22 is added to the TCP Chat Client 2. The Ports of TCP Chat Client and TCP Chat Server are configured (Port 245) 3. TCP Chat Server is in status "Listen"	1. Nickname - Tom Morello 2. IP - 127.0.0.1	1. Enter the valid value from test data in the field "Nickname" of the TCP Chat Client 2. Enter the valid value from test data in the field "IP" of the TCP Chat Client 3. Click the button "Connect"	1. The value is entered and displayed correctly in the field "Nickname" of the TCP Chat Client 2. The value is entered and displayed correctly in the field "IP" of the TCP Chat Client 3. The system displays the message with corresponding timestamp "[[timestamp]] Connecting to server 127.0.0.1:245..." in the TCP Chat Client text field.
t002		Successful Server Startup	High	The TCP Chat Server application is installed and closed.	Port field: 245	1. Open the TCP Chat Server application. 2. Enter the test value "Port: 245" in the "Port" field. 3. Click the "Listen" button to start the server.	1. The TCP Chat Server application opens without errors. 2. The entered "Port" value is displayed correctly. 3. The server successfully starts and begins listening for connections.
t003		Display of System Messages on User Connection	High	1. The user Tom Morello with IP address 127.9.12.22 is added to the TCP Chat Client 2. The Ports of TCP Chat Client and TCP Chat Server are configured (Port 245) 3. TCP Chat Server is in status "Listen"	1. Nickname - Tom Morello 2. IP - 127.0.0.1	1. Enter 127.0.0.1 in the "IP" field. 2. Enter 245 in the "Port" field. 3. Enter Tom Morello in the "Nickname" field. 4. Click the "Connect" button.	1. The entered "IP" value is displayed correctly. 2. The entered "Port" value is displayed correctly. 3. The entered "Nickname" value is displayed correctly. 4. The server logs display system messages: [timestamp] Tom Morello (127.9.12.22) is trying to connect... [timestamp] <SERVER> Tom Morello entered the chat.
t004		Recive a message in the TCP Chat Client	High	1. The TCP Chat Server is created and running. 2. TCP Chat Client is installed and running on Device 1 and Device 2. 3. Both devices are successfully connected to the server.	P field: 127.0.0.1 Port field: 245 Nickname field: Device 1: Ana Smith Device 2: Nick Holman Message: "Hello, how are you?" User ID: Device 1: 127.9.12.22 Device 2: 127.9.12.33	1. Open the TCP Chat Client application on Device 1. 2. Enter "Hello, how are you?" in the message input field. 3. Click the "Send" button. 4. Observe the TCP Chat Server logs. 5. Open the TCP Chat Client application on Device 2. 6. Check the chat window for the received message.	1. The "Send" button provides visual feedback when clicked. 2. The TCP Chat Server receives the message and logs: [Timestamp] Ana Smith: Hello, how are you? 3. Device 2 (Nick Holman) receives the message in its chat window. 4. The message appears with the correct timestamp, sender's nickname, and message content: [Timestamp] User Ana Smith (127.9.12.22) < Hello, how are you?>
t005		Display of Connected Users List in the TCP Chat Server	High	1. The TCP Chat Server is created and running. 2. TCP Chat Client is installed on Device 1 and Device 2. 3. The TCP Chat Server application is open.	IP field: 127.0.0.1 Port field: 245 Nickname field: Device 1: Ana Smith Device 2: Nick Holman  User ID: Device 1: 127.9.12.22 Device 2: 127.9.12.33	1. Enter the test value in the "Port" field on the TCP Chat Server. 2. Click the "Listen" button to start the server. 3. Open the TCP Chat Client application on Device 1. 4. Enter the test value from Device 1 in the "IP" field. 5. Enter the test value from Device 1 in the "Port" field. 6. Enter the test value from Device 1 in the "Nickname" field. 7. Click the "Connect" button. 8. Repeat steps 3-7 for Device 2. 9. Open the TCP Chat Server application.	1. The entered "Port" value is displayed correctly. 2. The server is successfully started, allowing users to connect. 3. The TCP Chat Client application opens without errors. 4. The entered "IP" value is displayed correctly. 5. The entered "Port" value is displayed correctly. 6. The entered "Nickname" value is displayed correctly. 7. Device 1 and Device 2 successfully connect to the server. 8. The "Online Users" list on the TCP Chat Server displays: Ana Smith (User ID: 127.9.12.22) Nick Holman (User ID: 127.9.12.33)

t006		Display successful connection of multiple users in the Chat Server	High	<ol style="list-style-type: none"> <li>1. TCP Chat Server is created.</li> <li>2. TCP Chat Client is installed on Devices 1, 2, and 3.</li> <li>3. TCP Chat Server application is open.</li> </ol>	<p>IP field: 127.0.0.1 Port field: 245</p> <p>Nickname field (for devices) Device 1: Ana Smith Device 2: Nick Holman Device 3: Irin Right</p> <p>User ID (for devices): Device 1: 127.9.12.22 Device 2: 127.9.12.33 Device 3: 127.9.12.44</p>	<ol style="list-style-type: none"> <li>1. Enter the test data into the "Port" field.</li> <li>2. Click the "Listen" button.</li> <li>3. Open the TCP Chat Client application on Device 1.</li> <li>4. Enter the test value from Device 1 into the "IP" field.</li> <li>5. Enter the test value from Device 1 into the "Port" field.</li> <li>6. Enter the test value from Device 1 into the "Nickname" field.</li> <li>7. Click the "Connect" button.</li> <li>8. Repeat steps 3-7 for Device 2.</li> <li>9. Repeat steps 3-7 for Device 3.</li> <li>10. Open the TCP Chat Server application.</li> </ol>	<ol style="list-style-type: none"> <li>1. The entered "Port" value is displayed correctly.</li> <li>2. The server is started, and users can connect.</li> <li>3. The "TCP Chat Client" application is open on each device.</li> <li>4. The entered "IP" value is displayed correctly.</li> <li>5. The entered "Port" value is displayed correctly.</li> <li>6. The entered "Nickname" value is displayed correctly.</li> <li>7. Device 1 is successfully connected to the server.</li> <li>8. Device 2 is successfully connected to the server.</li> <li>9. Device 3 is successfully connected to the server.</li> <li>10. The server logs system messages: [Timestamp] User Ana Smith (127.9.12.22) is trying to connect... [Timestamp] &lt;SERVER&gt; Ana Smith entered the chat. [Timestamp] User Nick Holman (127.9.12.33) is trying to connect... [Timestamp] &lt;SERVER&gt; Nick Holman entered the chat. [Timestamp] User Irin Right (127.9.12.44) is trying to connect... [Timestamp] &lt;SERVER&gt; Irin Right entered the chat</li> </ol>
t007		Send a message in TCP Chat Client text field	High	<ol style="list-style-type: none"> <li>1. The user Tom Morello with IP address 127.9.12.22 is added to the TCP Chat Client</li> <li>2. The Ports of TCP Chat Client and TCP Chat Server are configured (Port 245)</li> <li>3. TCP Chat Server is in status "Listen"</li> </ol>	<ol style="list-style-type: none"> <li>1. Nickname - Tom Morello</li> <li>2. IP - 127.0.0.1</li> <li>3. Test text: Hello, world!</li> </ol>	<ol style="list-style-type: none"> <li>1. Enter the valid value from test data in the field "Nickname" of the TCP Chat Client</li> <li>2. Enter the valid value from test data in the field "IP" of the TCP Chat Client</li> <li>3. Click the button "Connect"</li> <li>4. Input test text in the field "Say something"</li> <li>5. Click the button "Send"</li> </ol>	<ol style="list-style-type: none"> <li>1. The value is entered and displayed correctly in the field "Nickname" of the TCP Chat Client</li> <li>2. The value is entered and displayed correctly in the field "IP" of the TCP Chat Client</li> <li>3. The system displays the message with corresponding [timestamp] Connecting to server 127.0.0.1:245... in the TCP Chat Client text field.</li> <li>4. The test text is entered and displayed in the "Say something" field.</li> <li>5. The test message is successfully sent and displayed in the chat.</li> </ol>
t008		Unable to Connect with Incorrect IP Address	High		<ol style="list-style-type: none"> <li>1. Nickname - Tom Morello</li> <li>2. IP - 128.0.0.999</li> </ol>	<ol style="list-style-type: none"> <li>1. Enter a valid test nickname</li> <li>2. Enter an incorrect IP address (e.g., "128.0.0.999").</li> <li>3. Click the "Connect" button.</li> </ol>	<ol style="list-style-type: none"> <li>1. The nickname is entered and displayed correctly in the input field.</li> <li>2. Invalid IP address is entered.</li> <li>3. The client displays an error message indicating the connection failure.</li> </ol>
t009		Attempt to Connect with an Already Used Nickname	Medium	<ol style="list-style-type: none"> <li>1. The user Tom Morello with IP address 127.9.12.22 is added to the TCP Chat Client</li> <li>2. The Ports of TCP Chat Client and TCP Chat Server are configured (Port 245)</li> <li>3. TCP Chat Server is in status "Listen"</li> </ol>	<ol style="list-style-type: none"> <li>1. Nickname - Tom Morello</li> <li>2. IP - 128.0.0.999</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect a client with a nickname (e.g., "Tom Morello").</li> <li>2. Open a second client and attempt to connect with the same nickname.</li> </ol>	<ol style="list-style-type: none"> <li>1. The client successfully connects, and the nickname appears in the user list on the server.</li> <li>2. The client receives an error message stating that the nickname is already in use, and the connection is not established.</li> </ol>
t010		Attempt to Send an Empty Message		<ol style="list-style-type: none"> <li>1. The user Tom Morello with IP address 127.9.12.22 is added to the TCP Chat Client</li> <li>2. The Ports of TCP Chat Client and TCP Chat Server are configured (Port 245)</li> <li>3. TCP Chat Server is in status "Listen"</li> </ol>	<ol style="list-style-type: none"> <li>1. Nickname - Tom Morello</li> <li>2. IP - 127.0.0.1</li> </ol>	<ol style="list-style-type: none"> <li>1. Leave the message input field empty.</li> <li>2. Click "Send."</li> </ol>	<ol style="list-style-type: none"> <li>1. An error message is displayed "The field should not be empty"</li> </ol>
t011		Client Disconnection from the Server	High	<ol style="list-style-type: none"> <li>1. The user Tom Morello with IP address 127.9.12.22 is added to the TCP Chat Client</li> <li>2. The Ports of TCP Chat Client and TCP Chat Server are configured (Port 245)</li> <li>3. TCP Chat Server is in status "Listen"</li> <li>4. The user is connected.</li> </ol>	<ol style="list-style-type: none"> <li>1. Nickname - Tom Morello</li> <li>2. IP - 127.0.0.1</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect to the server with valid credentials (nickname, IP)</li> <li>2. Close the application.</li> </ol>	<ol style="list-style-type: none"> <li>1. The client disconnects successfully.</li> <li>2. The server removes the user from the active user list.</li> <li>3. Other clients receive a system message indicating the user has left.</li> <li>4. The disconnected client cannot send messages.</li> </ol>
t012		Title change of the "Listen" button in the TCP Chat Server	High		<ol style="list-style-type: none"> <li>1. Nickname - Tom Morello</li> <li>2. IP - 127.0.0.1</li> </ol>	<ol style="list-style-type: none"> <li>1. Click the button "Listen"</li> <li>2. Attempt to connect a client.</li> </ol>	<ol style="list-style-type: none"> <li>1. The button's title changes from "Listen" to "Stop"</li> <li>2. The client receives an error message</li> <li>3. The connection is not established.</li> </ol>

t013		Application Provides Visual Feedback on Button Clicks Кнопки подсвечиваются при нажатии	High	1. The user Tom Morello with IP address 127.9.12.22 is added to the TCP Chat Client 2. The Ports of TCP Chat Client and TCP Chat Server are configured (Port 245) 3. TCP Chat Server is in status "Listen"	1. Nickname - Tom Morello 2. IP - 127.0.0.1 3. Test text: Hello, I am Tom	1. Input test text in the field "Say something" 2. Click the button "Send"	1. Buttons provide visual feedback - appear pressed 2. Buttons provide visual feedback - appear pressed
t014		Scroll Bar Auto-Scrolls in Chat Window	Medium			1. Send multiple messages until the chat window is full. 2. Observe the scroll bar behavior.	1. The chat window fills up, and a scroll bar appears 2. The scroll bar moves down automatically when new messages appear
t015		Client Connection Loss Handling	High	1. The user Tom Morello with IP address 127.9.12.22 is added to the TCP Chat Client 2. The Ports of TCP Chat Client and TCP Chat Server are configured (Port 245) 3. TCP Chat Server is in status "Listen"	1. Nickname - Tom Morello 2. IP - 127.0.0.1	1. Connect a client to the server. 2. Disable the client's internet connection.	1. The client is automatically disconnected. 2. The server updates the user list, removing the disconnected client.