| Testcase  | Pass/Fa |
|---|---------|
| Testcase 2001   | Pass    |
| Server startup check with default arguments   |         |
| Instructions:   |         |
| 1. Start the server program   |         |
| Expected result:  |         |
| 1. The server reports that it is listening for clients by displaying the following          |         |
| message:  |         |
| Server listening for clients on port 5555   |         |
| 2. The server console waits for user input.   |         |
| Cleanup:  |         |
| Terminate the server program.   |         |
| Testcase 2002   | Pass    |
| Client startup check without a login  |         |
| Instructions:   |         |
| <ol> <li>Start the Client program without specifying the loginID as an argument.</li> </ol> |         |
| Expected result:  |         |
| <ol> <li>The client reports it cannot connect without a login by displaying:</li> </ol>     |         |
| ERROR - No login ID specified. Connection aborted.  |         |
| 2. The client terminates.   |         |
| Cleanup: (if client is still active)  |         |
| Terminate the client program.   |         |
| Testcase 2003   | Pass    |
| Client startup check with a login and without a server                                      |         |
| Instructions:   |         |
| <ol> <li>Start the Client program while specifying loginID as an argument.</li> </ol>       |         |
| Expected result:  |         |
| <ol> <li>The client reports it cannot connect to a server by displaying:</li> </ol>         |         |
| ERROR - Can't setup connection! Terminating client.   |         |
| 2. The client terminates.   |         |
| Cleanup: (if client is still active)  |         |
| Terminate the client program.   |         |
| Testcase 2004   | Pass    |
| Client connection with default arguments  |         |
| Instructions:   |         |
| 1. Start a server (Testcase 2001, instruction 1)  |         |
| 2. Start a client (Testcase 2003, instruction 1)  |         |
| Expected results:   |         |
| 1. The server displays the following messages in sequence:                                  |         |
| A new client has connected to the server.   |         |
| Message received: #login <loginid> from null.</loginid>                                     |         |
| <loginid> has logged on.</loginid>  |         |

| Testcase   | Pass/F |
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| Note that the control of the first state of the control of the first state of the control of the   |        |
| <b>Note:</b> the server specifies that it received a message from null as this is the first message received from this client. It will record the loginID of this client for later   |        |
| messages. Hence, for later messages, it should display:  |        |
| Message received: <user input=""> from <loginid></loginid></user>  |        |
| Where <user input=""> is the content of the message received and <loginid> is the</loginid></user>   |        |
| loginID of the sending client.   |        |
| 2. The client displays message:  |        |
| <pre></pre> <pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><pre></pre><p< td=""><td></td></p<></pre> |        |
| 3. The client and the server wait for user input.  |        |
| Cleanup: (unless proceeding to Testcase 2005)  |        |
| Terminate the client program.  |        |
| Terminate the server program.  |        |
| Testcase 2005  | Pass   |
| Client Data transfer and data echo   |        |
| Instructions:  |        |
| 1. Start a server and a client using default arguments (Testcase 2004 instructions).   |        |
| 2. Once connected, type in data on the client console and press ENTER.   |        |
| Expected results:  |        |
| 1. The message is echoed on the client side, but is preceded by the sender's loginID   |        |
| and the greater than symbol (">").   |        |
| 2. The server displays a message similar to the following:   |        |
| Message received: <user input=""> from <loginid></loginid></user>  |        |
| Cleanup:   |        |
| Terminate the client program.  |        |
| Terminate the server program.  |        |
| Festcase 2006  | Pass   |
| Multiple local connections   |        |
| Instructions:  |        |
| 1. Start a server and multiple clients with DIFFERENT loginIDs and connect them to   |        |
| the server using default arguments. (Testcase 2005 instructions).  |        |
| 2. Start typing on all the client consoles AND the server console, pressing ENTER to   |        |
| send each message.   |        |
| Expected results:  |        |
| 1. All client messages are echoed as in Testcase 2005.   |        |
| 2. All messages from the server console are echoed on the server console and to all  |        |
| clients, but are preceded by "SERVER MESSAGE> ".   |        |
| Cleanup:   |        |
| Terminate the clients.   |        |
| Terminate the server program.  Testcase 2007   |        |
|  | Pass   |

| Testcase   | Pass/Fai |
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| Instructions:  |          |
| 1. Start a server (Testcase 2001 instruction 1) using default arguments.       |          |
| 2. Type "#quit" into the server's console.                                     |          |
| Expected result:   |          |
| 1. The server quits.   |          |
| Cleanup (If the server is still active):                                       |          |
| Terminate the server program.  |          |
| Testcase 2008  | Pass     |
| Server close command check   |          |
| Instructions:  |          |
| <ol> <li>Start a server and connect a client to it. (Testcase 2004)</li> </ol> |          |
| 2. Stop the server using the #stop command.                                    |          |
| 3. Type "#close" into the server's console.                                    |          |
| Expected result:   |          |
| 1. Server displays in sequence:  |          |
| Server has stopped listening for connections.                                  |          |
| <loginid> has disconnected.</loginid>  |          |
| 2. The client displays:  |          |
| The server has shut down.  |          |
| 3. The client terminates   |          |
| Cleanup:   |          |
| Terminate the client program.  |          |
| Terminate the server program.  |          |
| Testcase 2009  | Pass     |
| Server restart   |          |
| Instructions:  |          |
| 1. Start a server.   |          |
| <ol><li>Close the server using the #close command.</li></ol>                   |          |
| 3. Type "#start" into the server's console.                                    |          |
| 4. Attempt to connect a client.  |          |
| Expected result:   |          |
| <ol> <li>The server closes, restarts and then displays:</li> </ol>             |          |
| Server listening for connections on port 5555.                                 |          |
| 2. The client connects normally as described in Testcase 2004.                 |          |
| Cleanup:   |          |
| Terminate the client program.  |          |
| Type #quit to kill the server.   |          |
| Testcase 2010  | Pass     |
| Client termination command check   |          |
| Instructions:  |          |
| 1. Start a server  |          |
| 2. Connect a client.   |          |
| 3. Type "#quit" into the client's console.                                     |          |
| Expected result:   |          |

| Testcase   | Pass/Fail |
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|  |           |
| Client terminates.   |           |
| Cleanup: (If client is still active)   |           |
| Terminate the client program.  |           |
| Testcase 2011  | Pass      |
| Client logoff check  |           |
| Instructions:  |           |
| 1. Start a server (Testcase 1001, instruction 1), and then connect a single client to this server. |           |
| 2. Type "#logoff" into this client's console.  |           |
| Expected results:  |           |
| <ol> <li>Client disconnects and displays Connection closed.</li> </ol>                             |           |
| Cleanup:   |           |
| Type "#quit" to kill the client.   |           |
| Testcase 2012  | Pass      |
| Starting a server on a non-default port  |           |
| Instructions:  |           |
| 1. Start a server while specifying port <b>1234</b> as an argument.                                |           |
| Expected result:   |           |
| 1. The server displays   |           |
| Server listening for connections on port 1234.   |           |
| Cleanup:   |           |
| Type #quit to kill the server.   |           |
| Testcase 2013  | Pass      |
| Connecting a client to a non-default port  |           |
| Instructions:  |           |
| 1. Start a server on port 1234   |           |
| 2. Start a client with the arguments: <loginid> <host> 1234</host></loginid>                       |           |
| (replace the parameters by appropriate values).  |           |
| Expected Result:   |           |
| 1. The connection occurs normally.   |           |