



Member 1:	<input type="text"/>	Section:	<input type="text"/>
Member 2:	<input type="text"/>		
Member 3:	<input type="text"/>		

### Machine Project – Message Board Demo Kit

A. Startup Process[2]	SCORE
Run the Server Application (IP: 127.0.0.1, Port:12345)[1]	
Run 3 instances of the Client Application (Users: Alice, Bob, and Charlie)[1]	
B. Command Test (Alice, Unjoined)[3]	SCORE
User Alice checks the command list by using "/?"[1]	
User Alice receives a command error from the client using "/leave"[2]	
User Alice receives a command error from the client using "/register"	
User Alice receives a command error from the client using "/register Alice"	
User Alice receives a command error from the client using "/all"	
User Alice receives a command error from the client using "/all Hello World!"	
User Alice receives a command error from the client using "/msg"	
User Alice receives a command error from the client using "/msg Alice Hello World!"	
User Alice receives a command error from the client using "/abcde"	
User Alice receives a command error from the client using "join 127.0.0.1 12345"	
C. User Join Process[5]	SCORE
User Alice successfully joins the server using "/join 127.0.0.1 12345"[1]	
User Bob unsuccessfully joins the server due to an incorrect port using "/join 127.0.0.1 12346"[1]	
User Bob unsuccessfully joins the server due to an incorrect port IP using "/join 103.231.240.130 12345"[1]	
User Bob successfully joins the server using "/join 127.0.0.1 12345"	
User Charlie unsuccessfully joins the server due to incorrect parameters using "/join"[2]	
User Charlie unsuccessfully joins the server due to incorrect parameters using "/join abcde"	
User Charlie unsuccessfully joins the server due to incorrect parameters using "/join abcde 12345"	
User Charlie unsuccessfully joins the server due to incorrect parameters using "/join 127.0.0.1 abcde"	
User Charlie unsuccessfully joins the server due to incorrect parameters using "/join 127.0.0.1 12345 abcde"	
User Charlie unsuccessfully joins the server due to incorrect parameters using "/join abcde 127.0.0.1 12345"	
User Charlie successfully joins the server using "/join 127.0.0.1 12345"	

D. Command Test (Bob, Joined, Unregistered)[5]	SCORE
User Bob checks the command list by using <code>"/?"</code> [1]	
User Bob receives a command error from the client using <code>"/join"</code> [2]	
User Bob receives a command error from the client using <code>"/all"</code>	
User Bob receives a command error from the client using <code>"/all Hello World!"</code>	
User Bob receives a command error from the client using <code>"/msg"</code>	
User Bob receives a command error from the client using <code>"/msg Alice Hello World!"</code>	
User Bob receives a command error from the client using <code>"/abcde"</code>	
User Bob unsuccessfully leaves the server due to incorrect parameters using <code>"/leave Bob"</code> [1]	
User Bob successfully leaves the server using <code>"/leave"</code> [1]	
User Bob successfully rejoins the server using <code>"/join 127.0.0.1 12345"</code>	

E. User Handle Registration Process[3]	SCORE
User Alice successfully registers the handle using <code>"/register Alice"</code> [1]	
User Bob unsuccessfully registers the handle due to an incorrect syntax using <code>"/register"</code> [1]	
User Bob unsuccessfully registers the handle due to an incorrect syntax using <code>"/register Bob abcde"</code> [1]	
User Bob successfully registers the handle using <code>"/register Bob"</code>	
User Charlie successfully registers the handle using <code>"/register Charlie"</code>	

F. Command Test (Charlie, Joined, Registered)[5]	SCORE
User Charlie checks the command list by using <code>"/?"</code> [1]	
User Charlie receives a command error from the client using <code>"/join"</code> [2]	
User Charlie receives a command error from the client using <code>"/register"</code>	
User Charlie receives a command error from the client using <code>"/register Alice"</code>	
User Charlie receives a command error from the client using <code>"/register Charlotte"</code>	
User Charlie receives a command error from the client using <code>"/register Charlotte abcde"</code>	
User Charlie receives a command error from the client using <code>"/all"</code> [2]	
User Charlie receives a command error from the client using <code>"/msg"</code>	
User Charlie receives a command error from the client using <code>"/msg Alice"</code>	
User Charlie receives a command error from the client using <code>"/abcde"</code>	
User Charlie unsuccessfully leaves the server due to incorrect parameters using <code>"/leave Charlie"</code>	
User Charlie successfully leaves the server using <code>"/leave"</code>	

G. User Broadcast Messaging Process[8]	SCORE
User Alice successfully sends a message to all using <code>/all Hello World!"[2]</code> 1. User Alice successfully receives an echo back reply of <code>"Alice: Hello World!"</code> from the server 2. User Bob successfully receives <code>"Alice: Hello World!"</code> from the server 3. User Charlie successfully does not receive <code>"Alice: Hello World!"</code>	
User Charlie receives a command error from the client using <code>/register Alice"[1]</code>	
User Charlie successfully joins the server using <code>/join 127.0.0.1 12345"</code>	
User Bob successfully sends a message to all using <code>/all Hi Alice!"[1]</code> 1. User Bob successfully receives an echo back reply of <code>"Bob: Hi Alice!"</code> from the server 2. User Alice successfully receives <code>"Bob: Hi Alice!"</code> from the server 3. User Charlie successfully does not receive <code>"Bob: Hi Alice!"</code>	
User Charlie receives a command error from the client using <code>/register Bob"</code>	
User Charlie successfully registers the handle using <code>/register Charlie"</code>	
User Alice successfully sends a message to all using <code>/all Nice to meet you!"[2]</code> 1. User Alice successfully receives an echo back reply of <code>"Alice: Nice to meet you!"</code> from the server 2. User Bob successfully receives <code>"Alice: Nice to meet you!"</code> from the server 3. User Charlie successfully receives <code>"Alice: Nice to meet you!"</code> from the server	
User Charlie successfully sends a message to all using <code>/all Glad to be here!"[1]</code> 1. User Charlie successfully receives an echo back reply of <code>"Charlie: Glad to be here!"</code> from the server 2. User Alice successfully receives <code>"Charlie: Glad to be here!"</code> from the server 3. User Bob successfully receives <code>"Charlie: Glad to be here!"</code> from the server	
User Charlie successfully sends a message to all using <code>/all Wherever "here" is."[1]</code> 1. User Charlie successfully receives an echo back reply of <code>"Charlie: Wherever "here" is."</code> from the server 2. User Alice successfully receives <code>"Charlie: Wherever "here" is."</code> from the server 3. User Bob successfully receives <code>"Charlie: Wherever "here" is."</code> from the server	

H. User Unicast Messaging Process[11]	SCORE
<p>User Alice successfully sends a unicast message to Bob using <code>"/msg Bob How are you?"</code>[2]</p> <ol style="list-style-type: none"> <li>1. User Alice successfully receives an echo back reply of <code>"[To Bob]: How are you?"</code> from the server</li> <li>2. User Bob successfully receives <code>"[From Alice]: How are you?"</code> from the server</li> <li>3. User Charlie successfully does not receive any message</li> </ol>	
<p>User Alice successfully sends a unicast message to Charlie using <code>"/msg Charlie Nice weather right?"</code>[1]</p> <ol style="list-style-type: none"> <li>1. User Alice successfully receives an echo back reply of <code>"[To Charlie]: Nice weather, right?"</code> from the server</li> <li>2. User Charlie successfully receives <code>"[From Alice]: Nice weather, right?"</code> from the server</li> <li>3. User Bob successfully does not receive any message</li> </ol>	
<p>User Bob unsuccessfully sends a unicast message to Charlotte using <code>"/msg Charlotte Good day!"</code>[1]</p>	
<p>User Bob successfully sends a unicast message to Alice using <code>"/msg Alice Doing great!"</code>[1]</p> <ol style="list-style-type: none"> <li>1. User Bob successfully receives an echo back reply of <code>"[To Alice]: Doing great!"</code> from the server</li> <li>2. User Alice successfully receives <code>"[From Bob]: Doing great!"</code> from the server</li> <li>3. User Charlie successfully does not receive any message</li> </ol>	
<p>User Charlie successfully sends a unicast message to Alice using <code>"/msg Alice That's right!"</code>[2]</p> <ol style="list-style-type: none"> <li>1. User Charlie successfully receives an echo back reply of <code>"[To Alice]: That's right!"</code> from the server</li> <li>2. User Alice successfully receives <code>"[From Charlie]: That's right!"</code> from the server</li> <li>3. User Bob successfully does not receive any message</li> </ol>	
<p>User Charlie successfully sends a unicast message to Bob using <code>"/msg Bob BRB, I have to reset my WiFi router."</code>[1]</p> <ol style="list-style-type: none"> <li>1. User Charlie successfully receives an echo back reply of <code>"[To Bob]: BRB, I have to reset my WiFi router."</code> from the server</li> <li>2. User Bob successfully receives <code>"[From Charlie]: BRB, I have to reset my WiFi router."</code> from the server</li> <li>3. User Alice successfully does not receive any message</li> </ol>	
<p>User Charlie successfully leaves the server using <code>"/leave"</code></p>	
<p>User Bob unsuccessfully sends a unicast message to Charlie using <code>"/msg Charlie Sure, no problem!"</code>[1]</p>	
<p>User Bob successfully sends a unicast message to Alice using <code>"/msg Alice Hey, Charlie needs to do some networking stuff."</code></p> <ol style="list-style-type: none"> <li>1. User Bob successfully receives an echo back reply of <code>"[To Alice]: Hey, Charlie needs to do some networking stuff."</code> from the server</li> <li>2. User Alice successfully receives <code>"[From Bob]: Hey, Charlie needs to do some networking stuff."</code> from the server</li> <li>3. User Charlie successfully does not receive any message</li> </ol>	
<p>User Alice successfully sends a message to all using <code>"/all It might have something to do with the server."</code>[1]</p> <ol style="list-style-type: none"> <li>1. User Alice successfully receives an echo back reply of <code>"Alice: It might have something to do with the server"</code> from the server</li> <li>2. User Bob successfully receives <code>"Alice: It might have something to do with the server."</code> from the server</li> <li>3. User Charlie successfully does not receive any message</li> </ol>	

I. Server Closing Test[2]	SCORE
Stop the Server Application	
User Alice unsuccessfully sends a message to all using <code>"/all Did the server go down?"</code> [1] <ol style="list-style-type: none"> <li>1. User Alice unsuccessfully receives an echo back reply from the server</li> <li>2. User Bob unsuccessfully receives any message</li> <li>3. User Charlie successfully does not receive any message</li> </ol>	
User Alice unsuccessfully sends a unicast message to Bob using <code>"/msg Bob Are you still there?"</code> [1] <ol style="list-style-type: none"> <li>1. User Alice unsuccessfully receives an echo back reply from the server</li> <li>2. User Bob unsuccessfully receives any message</li> <li>3. User Charlie successfully does not receive any message</li> </ol>	
Stop all 3 instances of the Client Applications	

J. Interoperability Test[6]	SCORE
Run the tests again using the same Server Application but different Client Application	
Run the tests again using a different Server Application but the same Client Application	
Optional: Check if the messages being sent by the Client to the Server and vice-versa is following the given format	