

## Chat Protocol, Designed by all Classed Monday, September 5<sup>th</sup>.

- This protocol must be used by all groups when implementing the Chat Server and Client
- Tags must be uppercased as given below, and don't add any additional spaces.
- You can assume that usernames are unique
- You must consider ':' and ',' as reserved characters which cannot be used in neither usernames nor messages

### Command Strings

Clients → Server		
Command	Description	Example(s)
<b>LOGIN:</b> <name>	Message that includes the username of the client (for this CA its assumed that all users somehow have a unique name)  MUST be sent as the first command, and can ONLY be sent once	<b>LOGIN:</b> Peter
<b>MSG:</b> <receivers>:<message>	String used to send messages, which includes both the receiver(s) and the message. (receivers must name(s) received via a LOGIN:xxx command, or blank (nothing) to send to all)	<u>Send to one</u> <b>MSG:</b> Peter:Hello Peter <u>Send to several</u> <b>MSG:</b> Peter,Jens:Hello guys <u>Send to all</u> <b>MSG::</b> Hello everybody
<b>LOGOUT:</b>	Notify the server that it can close the connection for this client	<b>LOGOUT:</b>

Server → clients		
Command	Description	Example(s)
<b>CLIENTLIST:</b> <n1,n1,...>	Message that includes all users currently online (comma delimited). <u>Must be sent:</u> <ul style="list-style-type: none"><li>• Right after a new Client has connected</li><li>• Right after an existing Client has disconnected</li></ul>	<b>CLIENTLIST:</b> Lars,Thomas,Peter
<b>MSGRES:</b> <sender>:<message>	Used to forward a message received from a client (sender) to the receiver(s)	<b>MSGRES:</b> Peter:Hello from Peter