

## functionality-criteria-4

<b>Feature</b>	<b>Points</b>
<b>Overall Program Structure</b>	<b>20</b>
<ul style="list-style-type: none"> <li>● Previous code still works! <span style="float: right;">5</span></li> <li>● Correct "main" handling <span style="float: right;">5</span></li> <li>● Separate database per user <span style="float: right;">5</span></li> <li>● Good modularity and exception handling <span style="float: right;">5</span></li> </ul>	
<b>Database Creation and Update Functionality</b>	<b>40</b>
<ul style="list-style-type: none"> <li>● Correctly connect to and create database <span style="float: right;">8</span> <ul style="list-style-type: none"> <li><i>Use a separate database name per user</i></li> <li><i>Catch and display any exceptions</i></li> </ul> </li> <li>● Update chats table when new chats start <span style="float: right;">8</span> <ul style="list-style-type: none"> <li><i>Store information in chats table correctly</i></li> <li><i>Catch and display any exceptions</i></li> </ul> </li> <li>● Update messages table when each message goes by <span style="float: right;">8</span> <ul style="list-style-type: none"> <li><i>Store information in messages table correctly</i></li> <li><i>Catch and display any exceptions</i></li> </ul> </li> <li>● Keep intersection tables (messages_in_chats, members_in_chats) correctly updated <span style="float: right;">8</span> <ul style="list-style-type: none"> <li><i>Add a row to messages_in_chats to indicate each new message associated with a chat</i></li> <li><i>Add a row to members_in_chats for each member associated with a chat</i></li> <li><i>Catch and display any exceptions</i></li> </ul> </li> <li>● Correctly shutdown database <span style="float: right;">8</span> <ul style="list-style-type: none"> <li><i>Correctly issue SHUTDOWN command</i></li> <li><i>Close the database statement and connection</i></li> <li><i>Catch and display any exceptions</i></li> <li><i>Optional: checkpoints throughout the code</i></li> </ul> </li> </ul>	
<b>Database Retrieval and Display Functionality</b>	<b>40</b>
<ul style="list-style-type: none"> <li>● Produce list of all members you've ever chatted with <span style="float: right;">15</span> <ul style="list-style-type: none"> <li><i>Fetch all distinct members from the chats table</i></li> <li><i>Display correctly in a window</i></li> <li><i>Catch and display any exceptions</i></li> </ul> </li> <li>● Display history window for selected user <span style="float: right;">25</span> <ul style="list-style-type: none"> <li><i>Fetch all chats associated with a given user</i></li> <li><i>Fetch all messages associated with those chats</i></li> <li><i>Display in an organized way in a window</i></li> <li><i>Catch and display any exceptions</i></li> </ul> </li> </ul>	
<b>Bonus</b>	<b>10</b>
<ul style="list-style-type: none"> <li>● Fancy (and <i>correct!!</i>) schema above and beyond what's been provided <span style="float: right;">5</span></li> <li>● "Statistics" UI giving details about average numbers of chats, average numbers of messages per chat, average chat duration, etc. <span style="float: right;">5</span></li> </ul>	