

## **Server**

The server has a driver class and a helper class. The driver class makes sure that the clients can connect to the server properly. Once a successful connection is established, the server will then run the helper code that uses the data obtained from the socket from the client to execute calculations. Type “quit” in the server console to close and save changes to the log.

## **Server Helper**

The helper class gets the user’s name and the time they connected to the server. Once connected, the user can type an expression (space separated for every token). The helper will then parse the tokens, and use Dijkstra’s Two Stack Algorithm to solve the equation. The helper class supports the order of operations excluding exponents. Once calculated, the helper will send the result to the client. The helper will also track the time that the client closes and the duration of time they were connected.

## **Client**

This is the program that the client sees. It will automatically connect to the server upon startup and prompt the user for their name and the expression that they want to be solved. The client will then send the information to the server to calculate. The client will then retrieve the results and display it to the user.