High Level Design for CLI Project – Milestone 2

Terminology:

**Chat** **Room**

A virtual environment in which users can post their messages and read the messages written by other users.

**User**

A person who interacts with the system

**Nickname**

A familiar or humorous name the user uses to identify himself.

**Registration**

The act of recording user details.

**Login**

The act of signing into the system by the user.

**Message**

The text which the user delivers. Message content is limited to 150 characters.

**Message** **Frame**

A written communication sent between the users of the system. A wrapper for a message.

**Display Messages**

The act of presentation the retrieved messages on screen by message timestamp order.

**Filter Messages**

The act of presentation the messages belongs to a certain filter criterion only.

The filter criteria are: Group ID and User.

**Sort Messages**

The act of displaying the messages in ascending or descending order by the following criterions:

a. Message timestamp.

b. Nickname.

c. By the order of Group ID, nickname and then timestamp.

**GUI**

The GUI is graphical interface. This part supports the same actions like in the CMD, but in more comfortable way.

**Test**

Test Project supposed to test chosen methods which are the most important to operate our project. The project contains class that uses "NUnit" extension of Visual Studio, that help us to write tests and to understand what methods should we improve or fix.

Communication model

**Send message request**

A send message request is initiated by the user, the request is sent to the server r, which assigns the message with a unique ID (GUID) and the server’s timestamp.

**Get 10 messages request**

A get message request is initiated after each “send message request” and potentially can be initiated at any time. This type of request is intended to receive the last 10 messages stored on the server.

Chat framework

**Timer**

Every 2 seconds, the chat room is updated and display recent messages.

**Data structures**

* List of all the messages in the chat.
* List of all registered users.

Actors

**Users**

A person connected to the chatroom using a client software, for sending and receiving messages. A user is identified by her group ID and a nickname that is unique to her group.