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Software Requirements

- 1) Basic java software(jdk&jre) version 1.8. For installation, download the software, run and install it as usually. After installation, set the system's environment variables, i.e set the "path" variable to java software directory.
- 2) Data Base---Microsoft Access 2016 (free download or trial version)
- 3) Necessary jar files and gif files are included in lib and resources folder. So no need to download them separately.

Procedure to Compile, Run/Start

Go to command prompt navigate to your project location and then navigate to "releases".

Starting server

Give the below command over the command prompt.

start java -cp Server.jar;commons-lang-2.6.jar;commons-logging-1.1.1.jar;hsqldb.jar;jackcess-2.0.4.jar;ucanaccess-2.0.8.jar;%classpath%; com.mclient.Server -x

Starting Client

Give the below command over the command prompt.

set classpath=commons-lang-2.6.jar;commons-logging-1.1.1.jar;hsqldb.jar;jackcess-2.0.4.jar;ucanaccess-2.0.8.jar;org.apache.commons.io.jar;%classpath%;

To run either one or multiple client instances (MultiThreading)\

Give the below command that many times you want client instance to run over the command prompt.

start javaw -cp Client.jar com.mclient.Client 127.0.0.1

ASSUMPTIONS

- Connection is established via normal sockets but not web sockets.
- A browser is not used as a client i.e web client.
- Server is multi-threaded serving clients parallely, post is for sending messages and get for details of the file on database.
- As there is no web browser or user agent involved and thus this http tag is not displayed.
- Bad name rejection is when same/existing user tries to register multiple times.
- Swings are used instead of AWT because on all OS they look and function same and are light weight controls.
- Chat is backed up and loaded upon user interest. It is loaded upon clicking yes button on the frame that pops up asking "Do you want to recover previous chat?"
- Time format is relative with the previous message sent/received.

Example: Message 1 received/sent at 12:37

Message 2 received/sent at 12:38.

Message 3 received/sent at 12:39.

Then it is shown as the relative time difference between the current and previous message as follows

Message 1 : (0:00) Message 2 : (0:01) Message 3 : (0:0 1)

The first message's time is always (0:00) because there is no previous message.