

GUI Report Documentation

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GUI Layout (Wireframe)

The wireframe illustrates the layout of the application's GUI, divided into two main windows: 'Login' and 'Chat'.

Login Window:

- Contains two input fields: 'User ID:' with the text 'User 1' and 'Server Address:' with the text 'chat.server.tld'.
- A 'Login' button is positioned below the input fields.

Chat Window:

- Features a 'Disconnect' button at the top left.
- A 'Users Online' list on the right side shows 'User 1 (Me)', 'User 2', and 'User 3'.
- A large text area in the center displays the message 'User 1: the sky is falling!'.
- A 'Send' button is located at the bottom right.
- A text input field is positioned at the bottom left, adjacent to the 'Send' button.

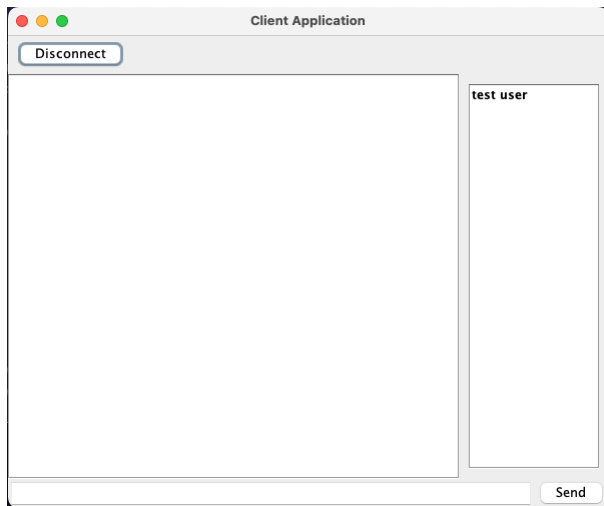
Implementation

Login

The implementation shows the 'Login' window within a 'Client Application' frame. The layout is consistent with the wireframe:

- The 'User ID:' field contains 'User 1'.
- The 'Server Address:' field contains 'chat.server.tld'.
- The 'Login' button is visible at the bottom.

Chat Area



User Guide

Run the following commands in CLI (command line interface)

Compiling the program:

```
javac Client.java BeaconServer.java Message.java EncryptedMessage.java
```

(Optional if hosting the server also) Start the server:

```
java BeaconServer
```

Run the program:

```
java Client
```

Once the program is running:

1. Log in with any desired user name in the User ID field. This will be your User ID visible to other users.
2. Enter the server address either as an IP or domain (if DNS is setup). This is the IP of the machine running the server executable (for testing on a single machine, just use "localhost" or "127.0.0.1" [without the quotes], the program's default behavior will also use "127.0.0.1" if nothing is entered in the field).
3. When the fields are filled out click Login or just press the enter key while in one of the text fields.
4. Once logged in, the user will be able to compose and send messages that will be visible to all users that are logged in. Logged in users will appear in the text field on the right.
 1. Though the messages are encrypted, all users logged into the server will be able to read sent messages.
 2. The server itself can see the encrypted message sent and who sent the message, but cannot read the plaintext contents.
5. To disconnect and return to the login panel, simply click on the "disconnect" button the the upper left. Clicking the X on the window will also terminate the program.
 1. (If running server) The server can be terminated by using the key combination "Ctrl + C" in the terminal window where it is running.