Hanoi University

Faculty Of Information Technology

**REPORT :**

**NETWORK PROGRAMMING MIDTERM PROJECT**

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Tutorial Class : 02

Subject: Network Programming

**I. Introduce**

This project creates the 2-side chat application/software that enables multiple persons to send messages privately together.

**II. Constructor**

1. This application is used by using TCP sockets.

2. IDE: IntelliJ and Netbean

3. Libraries : javax.swing.JFrame, DataInputStream and DataOutputStream

4. Using Try-Catch to solve Exception Handling

**III. Software Concept**

The software was designed to transmit and get text data between two people secretly. It consists of 1 java file as a server and 1 java file as a client. Although a user can create a server and multiple client windows then clients can message each other. This technique makes the app very secure. To use the app, users need to run the server first. Regarding interface components with the navy blue color, in each window of a server or a client, there are three main sections. The Server waits for the client to connect and then send and get the status which includes the client name and messages to display. The Client represent for person who can join the server to chat with other clients, Client has the online board and the message board to display the chat, Send button and Clear button help user easier to send and clear the message in the message box

| **Demo** | **Description** |
| --- | --- |
|  | **Starting the server:**   * Print out the message:”Server is opening” and “Server is online now!”   **Layout:**   * Show the status of server in text field by JTextArea * Has “Close Server” button   Size: 400x400 |
|  | **Starting the Client:**  **Layout:**   * Show Username field and Text input for client to enter username * Have login button and exit button * Size: 400x600 |
|  | **2 Client connected:**   * Show the list of users: trung and hoang * Print the message who is connected to chat * Client waiting for the message from another client   The messages were sent would be displayed on client board |
|  | **A client disconnected:**  Server:   * Print the message “user disconnected” in server board   Client:   * Print the message “user disconnected” in client board   Clear username in Online list |
|  |  |
|  | **The username has already exit:**  Pop up the Message Dialog:” Username already exists, please login again” |
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