**SYSTEM ARCHITECTURE**

*– Lecturer: Prof. Daniel Hagimont –*

*Student name:* **Pham Gia Phuc**

*Student ID:* **M23.ICT.010**

1. **Achievement**

This report provides an overview of the tasks I have completed

1. First part

* A Java RMI server that let multiple clients join and send the chat messages.
* Whenever a Client send a message to the Server, the Server will then send to the Callback, and the Callback will then print the message to the GUI of each different Client within the chat.
* However, if the process of a Client is terminated, the Server will still perceive that that Client remains in that chat and lead to error.
* In addition, the chat service continues to be struggling to deal with the Clients with the same name (can be achieved by terminating a client, then let another client join with that same name), which lead to error.

1. Second part

* With the base of the first part, the attach feature is created along the existing buttons.
* The `attach` function in Client GUI let Clients select a file from their system, then create a connection by using socket, to the Server, and pretending to be a server.
* The Server is now acts as a client and acquire the file which is sent from the sender-pretend-to-be-server via the Callback.
* However, I am not successfully creating the connection between real Server and other Clients to make the connection between them and the sender so that they cannot receive the sent file.

1. **How to use the tool?**

* Step 1: unzip the file “*prjSA\_M23.ICT.010\_PhamGiaPhuc*”
* Step 2: Navigate to the folder contains source code:
  + First part: navigate to folder “*P1SA\_M23.ICT.010\_PhamGiaPhuc*”
  + Second part: navigate to folder “*P2SA\_M23.ICT.010\_PhamGiaPhuc*”
* Step 3: Open terminal
* Step 4: Type in “*javac ChatServerImpl.java && javac ChatClient.java*”
* Step 5: Type in “*java ChatServerImpl*”
* Step 6: For each client, open a new terminal and type: “*java ChatClient <name>*”

example: “java ChatClient P1”, “java ChatClient P2”, …

* Step 7: Start testing the service.

1. **Commitment**

Dear professor Daniel Hagimont,

I declare that the submitted work is my own and has not been copied from others. I fully comprehend the gravity of plagiarism and the potential repercussions that could happen should I breach the policy.

Thank you!

 Sincerely,

Pham Gia Phuc