SYSTEM ARCHITECTURE

– Lecturer: Prof. Daniel Hagimont –

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I. 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.
2. 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.

II. 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.

III. 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