Messenger System

Server Details – Thread Outline

* Create a menu to display to User: Options 1 – 4
* Option 1: Load Data from file
  + Read data from JSON File
  + Save data to Messaging System: List of Users, messages, etc.
* Option 2: Start the Messenger Service
  + 1st we need to start a Thread for keeping the Program running
  + 2nd Start another Thread for Running the Messaging App / Client
  + 3rd Start another Thread for background processing: This is the thread that is responsible for trying to relay the message to the client
  + Load Customer GUI / Sign In Menu
    - Verify username/email & password at sign-in
      * Error-handling if doesn’t exist
      * Otherwise if successful = Create two threads for client:
        + 1. For receiving messages
        + 2. For sending messages
    - Display User Options:
      * Send a Message
        + Relay message through thread 1
      * Check Messages
        + Receive messages from thread 2
      * Sign Out
        + Close both threads of the client for the user
* Option 3: Stop the Messenger Service
  + Close the 1st thread that is keeping the Program running
  + Close the 2nd thread that is running the Messaging App / Client
* Option 4: Save Data to File
  + Write the Current Messaging System to File: List of Users, list of messages