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**ICS4104 Distributed Systems**

**Assignment: Inter-process Communication in Distributed Environment**

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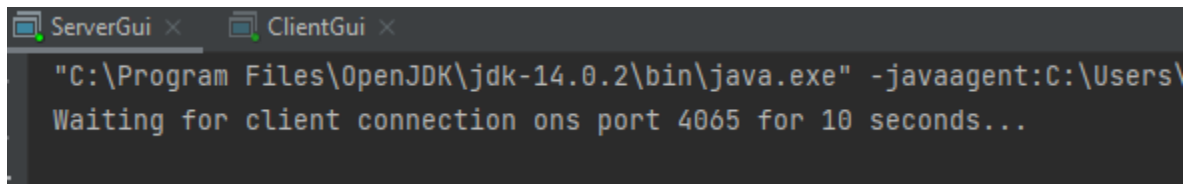
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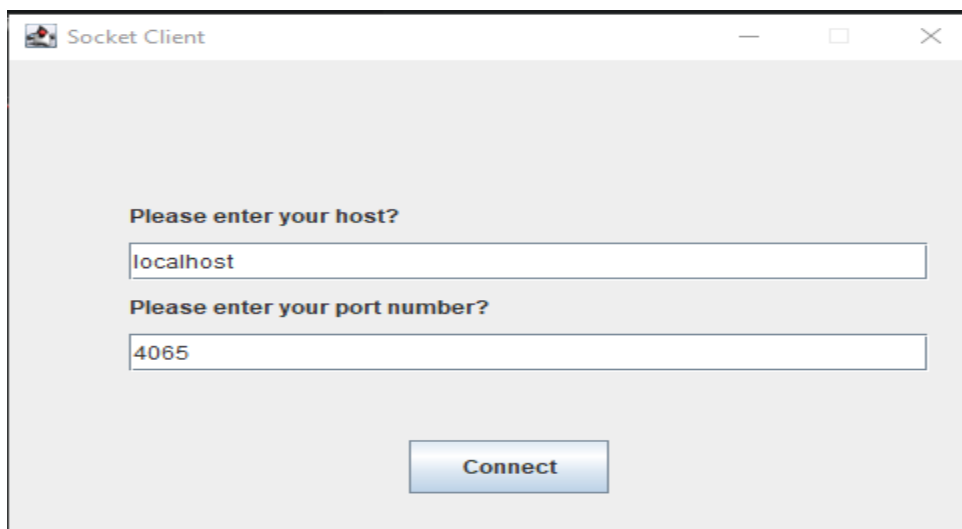Manu Ochieng -105545

## How the Project Works

1. Run the *ServerGUI.java* class to load the initial server GUI to enter the port number to create a server connection (default port number is 4065).
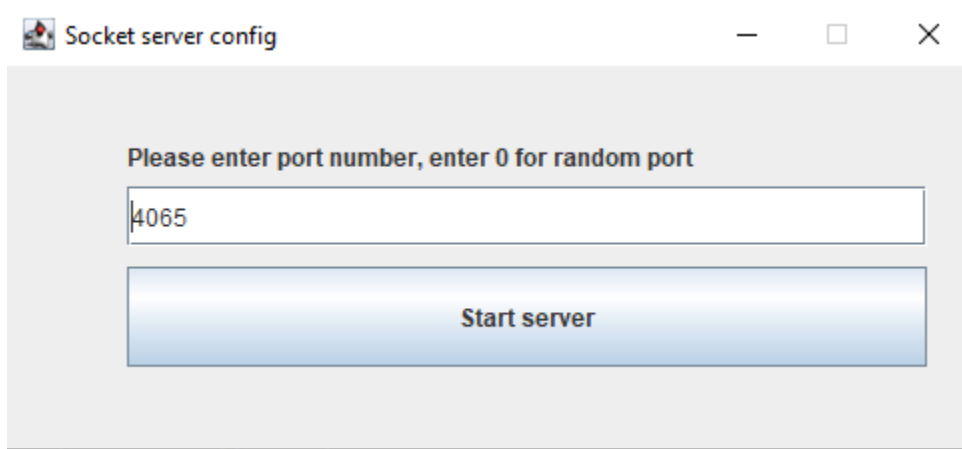
Upon clicking the "Start server" button, the server awaits connection from a client.

2. Run the *ClientGUI.java* file and enter the hostname and port number to connect to the established server connection.
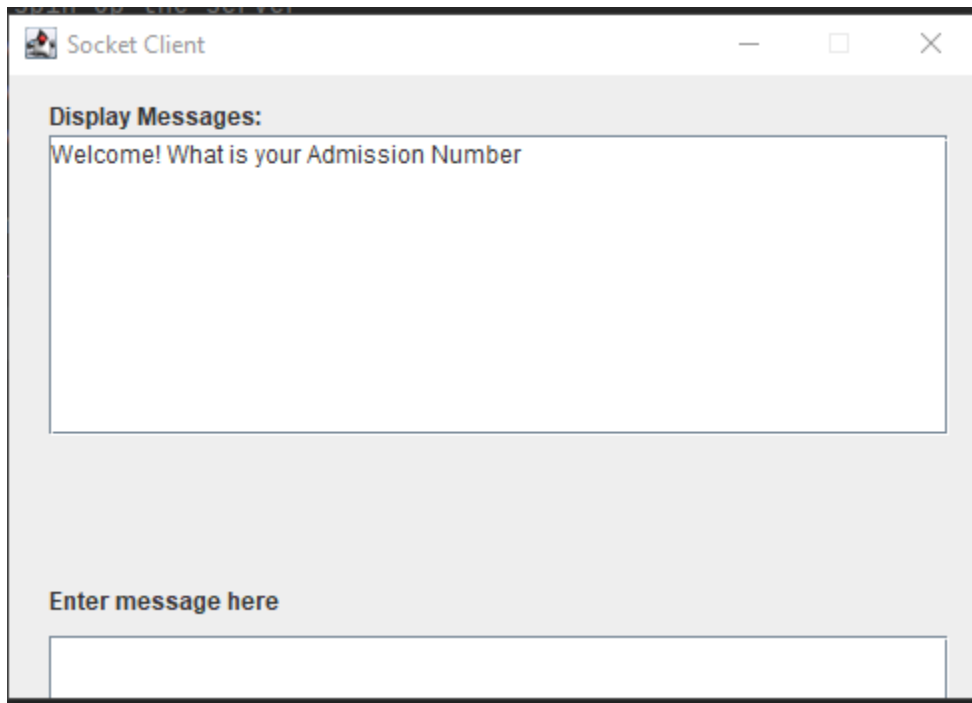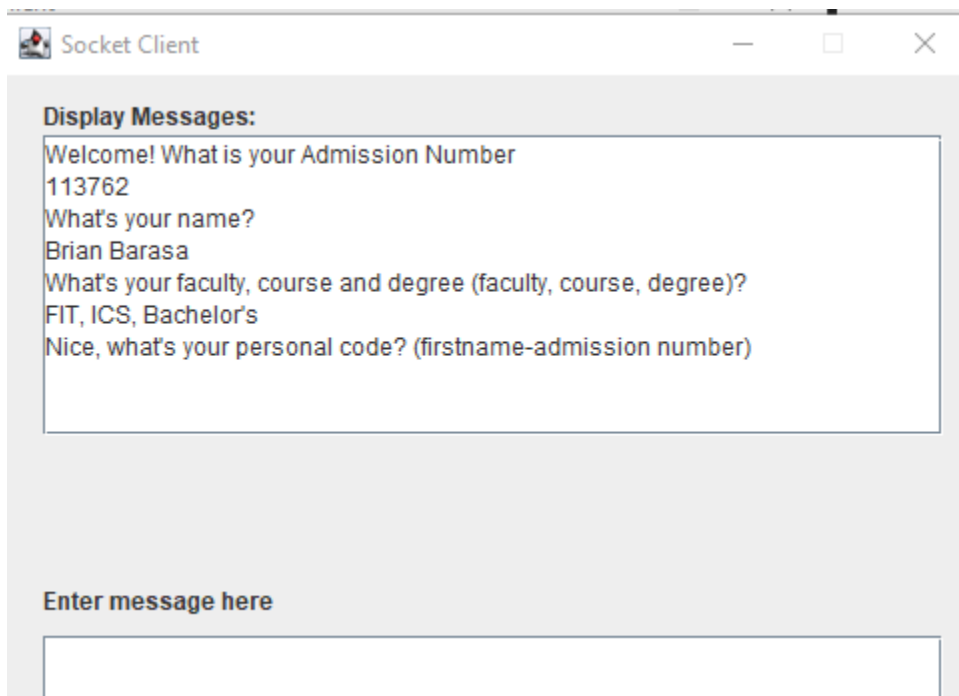
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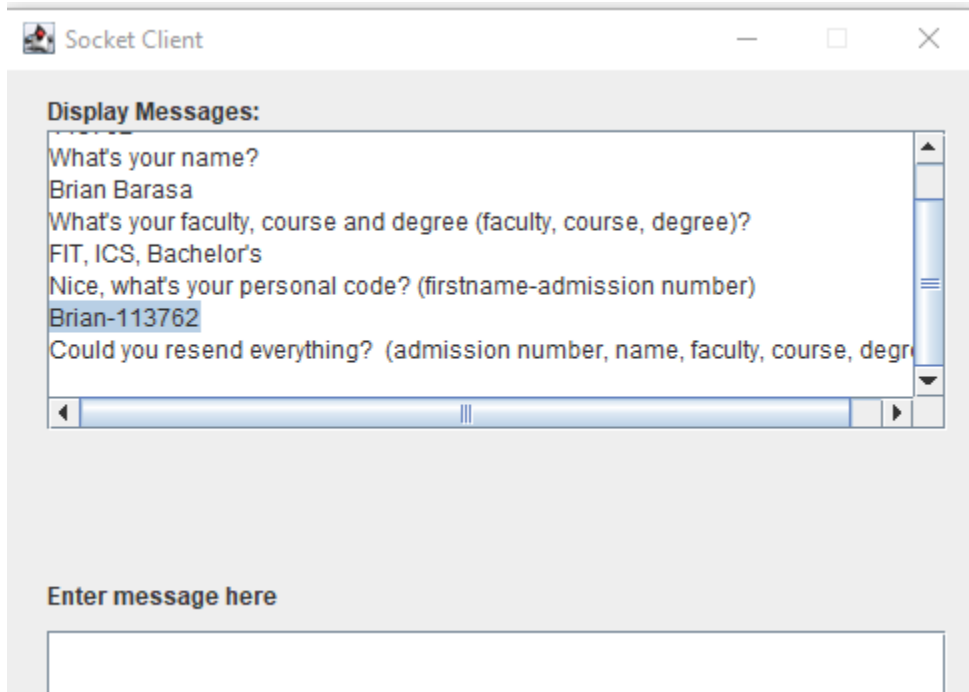
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3. After connecting to the server, the server requests the student details from the client.



4. The client provides the requested details to the server.

5. The server requests the client for the personal code, which the client sends in the format "First name - Student number".



6. The server requests for all the information in one instruction which the client provides. After, the server sends the client a message indicating that the communication succeeded and to request the client to restart or close the program.
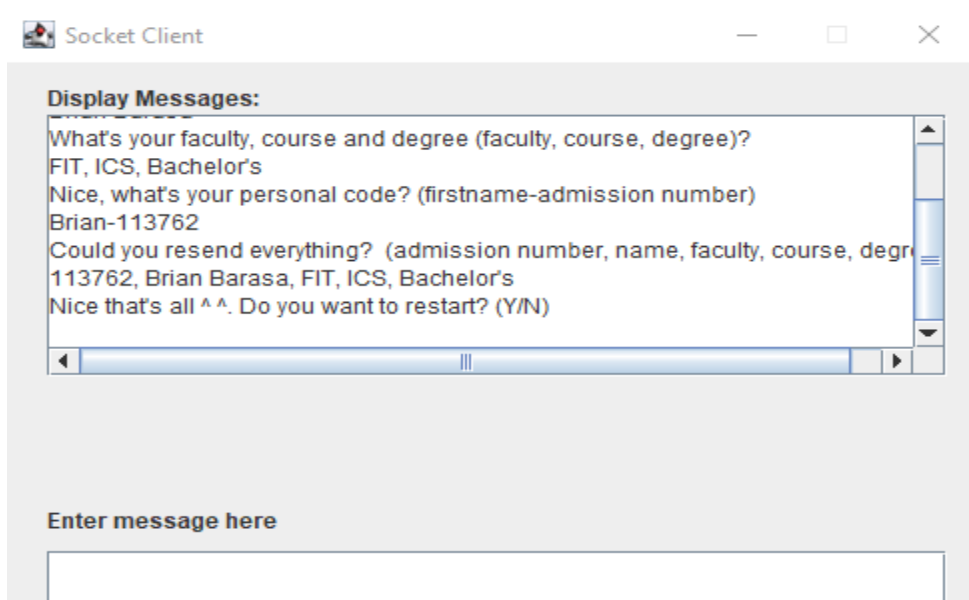
7. If the client types 'N', the server terminates the connection otherwise if the client types 'Y' it restarts the whole process.
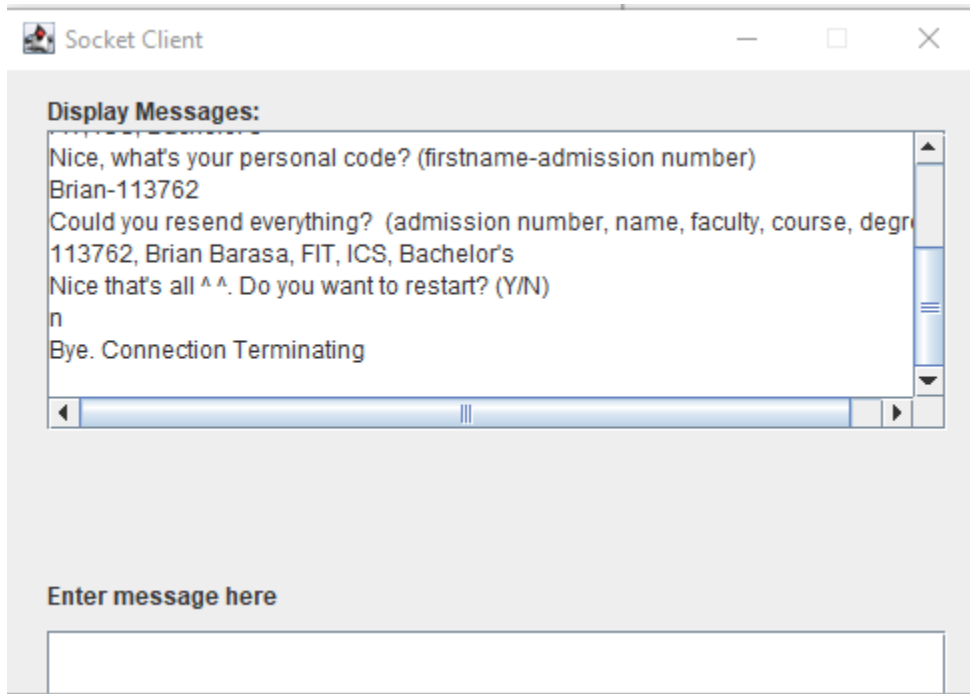


## Classes Used

**Server:**

1. Server class
2. ServerProtocol Class
3. Main Class
4. SocketServer Class
5. ServerGUI class

**Client:**

1. Main class
2. ClientGUI class
3. SocketClient class
4. SocketConnector Interface

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**Project Logs**

1. 01/09/2021-  Implementation of the knock knock protocol as a base for the project.
2. 01/09/2021 -  Implementation of the server and client GUIs to be used for the project.
3. 02/09/2021 - Implementation of the server connection.
4. 02/09/2021 - Connection of the server sockets with the GUI.
5. 03/09/2021 - Connection of the client sockets with the GUI.
6. 03/09/2021 - Implementation of the client communication to the server.
7. 03/09/2021 - Connection of the server protocol with the server.
8. 03/09/2021 - Connection of the server protocol messages with the GUI.
9. 04/09/2021 - Final testing of the project and documentation.