Technical Test- Alejandro Beltrán Salazar.

1.- Instructions.

The technical test required the creation of a chat application for two clients to communicate with each other, consisting of a server whose role is to receive connections and messages from clients, send them to their destination, and log them in a log file.

2.- Implementation.

Using sockets, the server establishes a listening port, in this case, 413. Upon receiving a new connection, it prints a message on the screen notifying of the incoming connection, with the IP and the port of the connection, and stores the connection in a list upon receiving a username from the connected client. Once this is done, it sends back a message to all connected clients notifying them of the new user.

The client uses Tkinter for the graphical interface, having used Figma and TkInterDesigner for the design and implementation of the chat interface. When the client script is executed, a graphical interface is created where the user must enter their name. If an empty name is entered, they will be asked to enter a valid one. Once the connection is successfully made with the server, a new window opens with the chat application itself, where the user can send and receive messages.

3.- Requirements.

To run the server, it should not be necessary to install any packages, as it only uses basic Python packages. If necessary, the packages used on the server are:

- datetime
- json
- socket
- threading

The client uses the same dependencies, adding tkinter for the graphical interface.

4.- Execution.

To execute the project, it is necessary to first run the script located in the “server” folder. Once executed, up to five clients can connect, whose script is located in the “client” folder – client.py.