



ChatApp

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Tech Stack

The packages that were used:

- Socket: To provide connection between processes across a network using the TCP/IP protocol suite
- Threading: To run multiple threads concurrently within a single process
- Tkinter: Python's standard GUI toolkit, used to provide a set of modules for creating desktop applications with graphical interfaces
- Scrolledtext from Tkinter: A module from the tkinter package, it provides a widget for displaying and editing text with horizontal and vertical scrollbars. It is useful for creating text areas that automatically scroll when the content exceeds the visible area.
- Messagebox from Tkinter: A module from the tkinter package, it provides a way to display message boxes with a variety of alerts, such as errors or warnings
- Datetime: Used to allow Python classes to manipulate dates and times efficiently



Application Overview - Server-Side

Now I will go over the server-side of this functionality and its features. The server-side is used:

- To Listen for incoming connections from clients, allowing up to 5 connected clients at once
- To Accept a username from each client upon connection
- To Broadcast messages from one client to all other connected clients
- To run a separate thread for each client to handle incoming messages continuously
- To store messages from the conversation in a conversation.txt file



Application Overview - Client-Side

Next, I will go over the client-side functionality and explain its features. The client-side:

- Allows a user to input a custom username and join the chat as long as it is a valid username
- Sends messages typed by the user to the server chat
- Displays incoming messages from other users in the chat window
- Handles errors using error messages for issues such as failed server connections, invalid username input, and invalid message input
- Uses threading to continuously listen to messages from the server
- Stores messages from the conversation in a conversation.txt file



Application Overview - GUI

Next, I will briefly go over my GUI functionality and explain its features. The GUI:

- Uses the tkinter package to implement basic GUI components and design
- Provides text entry fields for username and message input
- Displays chat messages in a scrolled text widget
- Includes buttons for sending messages and joining the chat
- Disables buttons such as the button to join the chat once the user has joined



The End

Questions?