The Code structure of Chat-App is organized into several packages, each with its own purpose.

The Packages included in the project are: -

1. cmd: - it’s the main entry point of the project (main. go), it initializes routers and starts HTTP server.
2. Internal: - it contains the WebSocket implementation of the chat server.
3. util/password: - provides functionality for handling, securing, hashing and verifying password hashes.
4. Internal/client. go: - this package contains the user management functionalities of chat-app like adding, deleting and retrieving users.
5. Internal/hub. go: - this package contains the chat room functionality of the app including adding, deleting and retrieving of chat rooms.
6. router: - this package contains the HTTP request handling functionality including handling of HTTP requests and websocket (gin framework libraries were used for flexible routing)

The code structure is fine, separation in packages makes it easier to understand the functionality of each component of this chat-app application.

During Development the problems faced: -

1. Newer Syntax
2. Linking Docker Container
3. Package Related Errors

But these issues were solved with help of few Internet searches and ChatGPT.