# **Rolesphere - Chat Room Application Report**

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#### Goal:

Rolesphere is a web platform designed to offer different Role-Playing (RP) opportunities through chat rooms. The goal is to provide a user-friendly environment where participants can find and join chat rooms based on their interests and engage in real-time conversations.

### What Was Done:

- Frontend (React):
- \* Built the main page displaying a list of chat rooms with tags.
- \* Added a top user profile bar (shows username or empty if not logged in).
- \* Implemented search bar and tag filters.
- \* Enabled navigation to chat rooms.
- \* Designed a responsive chat interface with real-time messaging.
- Backend (Node.js & Socket.io):
- \* Created a socket server for room-based messaging.
- \* Implemented join room, send and receive message events.
- \* Integrated user identification.
- Login System:
- \* Basic login page and user context to share user state.

#### **Difficulties Encountered:**

- Environment issues with TailwindCSS and React setup.
- Dependency conflicts on npm audit fixes.
- Managing dynamic user identity in socket messages.
- Handling state and routing for user context.

## **Possible Ameliorations:**

- Persistent login with backend authentication.
- Store chat history in a database.
- Show real-time online users.
- Add private messaging and room creation.
- Improve UI responsiveness and mobile support.
- Add timestamps, emojis, file sharing, and notifications.