

ChatSystem

<https://github.com/goldcakes/chatSystem.git>

This project was generated with [Angular CLI](#) version 14.1.1.

Git

The git repository contains the Chat System project. The Angular project was generated through the CLI with the "ng new chatSystem" command. And the NodeJS server was generated in the server folder with "npm init" and "npm install express --save" commands. The "git add *" command was used to stage changes during development on my local repository and "git commit -m " to control version history during the development of the project. The "git push" and "git pull" commands were used to push and pull the projects between the local and remote repositories.

Data Structures

There are three data structures for this project. There are Users, Groups and Channels. These structures are stored in the server of the project under chatSystem\server\data as JSON files.

Users are an array of users. Each user has a username, email, id, and role.

Groups are an array of groups. Each group has a group name and id.

Channels are an array of channels. Each channel has a channel name and id.

REST API

Auth Route

Description This route checks if the user exists in the list of existing users. If they exist it logs them in, otherwise it will display an error.

Route /api/auth

Method POST

Parameters username: string

Return Value {valid: true, user: {id: number, username: string, email: string, role: string}} or {valid: false, error: {}}

Create User

Description This route is used to create a new user if the entered username is available.

Route /api/createUser

Method POST

Parameters username: string, email: string, role: string

Return Value returns users if username doesn't exist or error if username exists.

Angular Architecture

Components

Login

The login component is for the page where a user enters their username to login to their account. On submit it makes a http post request to api/auth with the username as a parameter. If it returns valid as true, it will store that username's account details into session storage.

Chat

The chat component is for the page where people can access the chat groups and channels.

UserManagement

The user management component is for adding and deleting user accounts for the admin level accounts.