Individual Assignment 1

Project description

Communication is the essential part of every distributed system. In this assignment you will have to develop simple chat application based on socket programming.

In case if you do not have any previous experience with docker, it is highly recommended to go through this tutorial before you start working on your assignment:
https://docs.docker.com/get-started/

Implementation requirements

- Chat application should be implemented using client-server architecture
- Each client should be able to receive messages from all other clients interactively
- Server should handle two types of messages from all clients
    - Chat messages
    - Service messages (example: connection established, client decided to quit the chat, etc.)
- Server should be able to display the list of connected clients
- Server should be able to disconnect a particular client from the chat
- Clients should be able to use stickers (predefined images or ASCII art)

Extra points

- You will get 20% extra for implementing P2P architecture

Deliverables

Deliverables should be uploaded to Moodle as a zip file, except docker images.
- Application
    - Source code of the application (you're free to pick any language of your choice)
    - Docker image(s)
- Write-up
    - Architectural diagrams
    - Information about design decisions you made
    - Documentation how to launch your system
    - 5 pages max

Grading criteria

- Application - 85%
- Write-up - 15%