

For this assignment we will develop a chat room (90's version of direct messaging). The behavior of a chat room is quite simple. (1) Users can join a chat room at any time, immediately getting access to messages posted (from that moment on), (2) any user can post messages in the chat room, and (3) at any time users can leave the chat room, no longer receiving messages.

Your task is to implement a chat room with N users, so that they all can exchange messages, without any of the messages getting lost.

Task 1. For the first (Elixir) implementation of the chat room you must explore the use of threads and mutex(es) as a model to solve the concurrency problems that may appear.

This work is individual. You must hand in a project/file with the result of our work, as well as the instructions on how to execute it, and an example program for the execution.