Assignment 2, SDJ2
(MVVM, Observer, Sockets, Threads)

The assignment:

You must design and implement a simple client/server application with multiple clients.

Possible programs include:

- Chat system
- Tic-tac-toe

Or if you wish to use your own idea, just contact us first.

Requirements

- The application must use Sockets, connecting client and server, with the server being multithreaded to handle multiple clients.
- The client must be able to
    - o 1) send messages,
    - o 2) receive messages broadcasted to all (or some) clients, and
    - o 3) request some information from the server not to be broadcasted to other clients, e.g. number of connected chatters, list of connected chatters, some log in information or similar.
- You must use MVVM with at least two windows, which can be switched between. Some ideas:
    - o Actual chat window
    - o Set user name / alias window
    - o List of friends window
    - o Login window
- You must use the Observer design pattern as part of the solution.
- It is required to make a class diagram for the final solution. In the diagram you must be able to identify the MVVM (just put a comment or note), the Observer pattern and the design of the socket related classes.

Deadline

See itslearning

Format

It is ok to work in groups. Hand in a single zip-file with

- Class diagram (where the different patterns and the socket parts are clearly identified)
- Source code for all Java classes
- Related resources like fxml files, and if used, external jar files

Evaluation

Your hand-in will be registered and counts for one of the exam requirements.