

# A “LITTLE AND SIMPLE” GAME

## Assignment description

### Exercise 1:

Make a turn-based network protocol for 2 or more players, which support these requirements:

- a) A client should be able to log on the server
- b) A client should be able to log off the server
- c) A client X should be able to invite client Y to play the game Z (where Z is one of the 4 games in “Exercise 2” - see below)
- d) A client Y should be able to accept an invitation from client X to play the game Z
- e) When all relevant clients have accepted to play the game Z against each other, the server must decide who starts. The server then notifies all relevant clients about this.
- f) The server keeps track of, who’s turn it is, and notifies this to all relevant clients after each move.
- g) A client should be able to make a move. The “Game logic”\* on the server decides whether the move is legal.
- h) After a legal move has been submitted, all relevant clients must be updated. Hence the local GUIs can be updated as well.
- i) The “Game logic”\* on the server decides, when the game is over. And the result. The server notifies this to all relevant clients.
- h) A client should be able to resign/quit at any time. If so, he/she loses, and the game continues if there are more than 1 players left. Otherwise the last player wins. The server notifies this to the last player.

### Exercise 2:

Implement Game logic and GUI to at least one of these 4 games: Tic-Tac-Toe, Four-in-a-row, Yatzy or Chess. Use the protocol from Exercise 1 to make it possible to play the game over a network.