Systemrequirements

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Oblig 1 - inf112 - Gruppe 1

1 Functional requirements

- The Game will either be player in a web browser or as a java program.
- It should be possible to create a new user.
- It should be possible to log in as an existing user.
- A player can choose to play towards a computer-player or another human.
- The computer-player has three skill-levels.
- The player can select what skill-level the computer should have.
- The computer with beginner skill-level will only consider one move forward.
- The computer with intermediate skill-level will consider some moves forward.
- The computer with expert skill-level will consider many moves forward.
- The players can choose who will start with white pieces, or they can choose random.
- The board will be squared and consist of 64 tiles (8x8) and 16 white and 16 black pieces.
- The pieces should be able to move only to their legal tiles, according to chess rules.
- The legal moves of a piece, should be showed in a shaded color, when the piece is selected.
- A move is executed by pressing a piece, and then pressing a tile which is one of the legal moves for the selected piece.

- If a piece is selected, the player can select another piece by pressing it.
- If a piece is selected, it can be unselected.
- The players will take turns making a move.
- A player can only make one move in one turn.
- A player can see a list of the top-rated players, and their ratings.
- A player can ask for a draw at any point of the game, but it has to be accepted by the other player.
- A player can resign at any point of the game and will then lose the game.
- When the game is finished, the winner will be announced.
- When a player is finished with a game, their rank will be updated and saved.
- During the game, the 5 previous moves will be showed to the players.

2 Non functional requirements

- The system will be a fully functional and user-friendly game of chess.
- The system will be available in a web browser or as a java program.
- The game will have a design that apepals to kids in primary-school.
- Users of the system will identify themselves by a username and a password.
- The system will let the user play a game of chess against either another user, or a machine-player using the standard rules of chess, as described by FIDE.
- The rules of chess should be easy to change in case of new rule regulations.
- The machine-player will play with three levels of "cleverness". Beginner, intermediate and expert.
- The system will contain a list of players rank according to the chess rating system used by FIDE.
- All images and other graphics used will have an open data license.
- All source code and build scripts will have an open source code license.
- Java code will have good documentation according to best practices, by JavaDoc.
- The system will be easy to expand to support other rule sets other than standard chess.

- The computer with beginner skill-lever will do a turn within 1 second.
- The computer with intermediate skill-lever will do a turn within 3 second.