Game: LOT

Group:

**Instalation and Execution**

To execute the game it is only needed load the file game.pl by using the command: sicstus -l game.pl, and then write the command play. to start the game.

**Description of the game**

LOT is a board game played on a grid of 7x7 squares, where the goal of the game is to create a line of 3 consecutive stacks of 2 pieces in any direction.

The players alternate turns. In the first turn the player with the white pieces start and the player with the black pieces can choose if he wants to swap colors (**pie rule**).

In each turn a player needs to place a piece on an empty space of the board. If there is a line of three or more consecutive pieces of the same color in any direction the player must choose the piece that he wants to keep on the board, add a level to that piece in order to create a stack and remove the others.

If the board is filled before a line of 3 consecutive stacks of the same color the game ends in a draw.

**Considerations for game extensions**

describe the considerations taken into account when extending   
the game design, namely when considering variable-sized boards, optional rules (e.g., simplified rules   
for novice players, additional rules for expert players), and other aspects.

**Game logic**

**Game Configuration Representation:**

describe the information required to represent the game   
configuration, how it is represented internally and how it is used by the initial\_state/2 predicate.

**Internal Game State Representation:**

describe the information required to represent the game   
state, how it is represented internally, including an indication of the meaning of each atom (i.e. how   
different pieces are represented). Include examples of representations of initial, intermediate, and   
final game states.

Initial state of the game:

Uma imagem com texto, captura de ecrã, Tipo de letra, tipografia

Descrição gerada automaticamente

Intermediate game state:

Uma imagem com captura de ecrã, tipografia, design

Descrição gerada automaticamente

Final game state:

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Descrição gerada automaticamente

w – a white piece placed on the board;

b – a black piece placed on the board;

ww – a stack of white pieces placed on the board;

bb – a stack of black pieces placed on the board;

. – a white cell of the board;

**Move Representation:**

describe the information required to represent a move, and how it is   
represented internally (e.g., the coordinates of a board location, and/or other information   
necessary to represent a move) and how it is used by the move/3 predicate.

To represent a move we are asked to choose the row and the column were we want to place a piece:

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Descrição gerada automaticamente

**User Interaction:**

briefly describe the game menu system, as well as how interaction with the user   
is performed, focusing on input validation (e.g., when reading a move).

To start a game we write play. in the terminal and the following menu appears were we can choose what type of game we want to play.

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If we choose to play against the AI then we are asked to choose the difficulty.

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**Conclusions**

**Bibliography**

https://boardgamegeek.com/boardgame/127989/lot