SOFTWARE REQUIREMENTS

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1. Introduction

The following subsections of the Software Requirements Specifications (SRS) document provide an overview of the entire document. A general description of scope of project and software to produce.

1.1. Scope of project

Produce a Klotski game version documenting the whole process of analysis and development of the requirements and of the system.

1.2. Software Description

A desktop version of Klotski game with fancy graphical user interface to choose from many start configurations, saving and loading game states and get help for solving the puzzle.

2. Overall Description

2.1. Use Cases

RE_01. Start a new game

RE_02. Choose the start board configuration between many alternatives.

RE_03. Load a saved game.

RE_04. Move blocks by GUI interactions and keep moves counter.

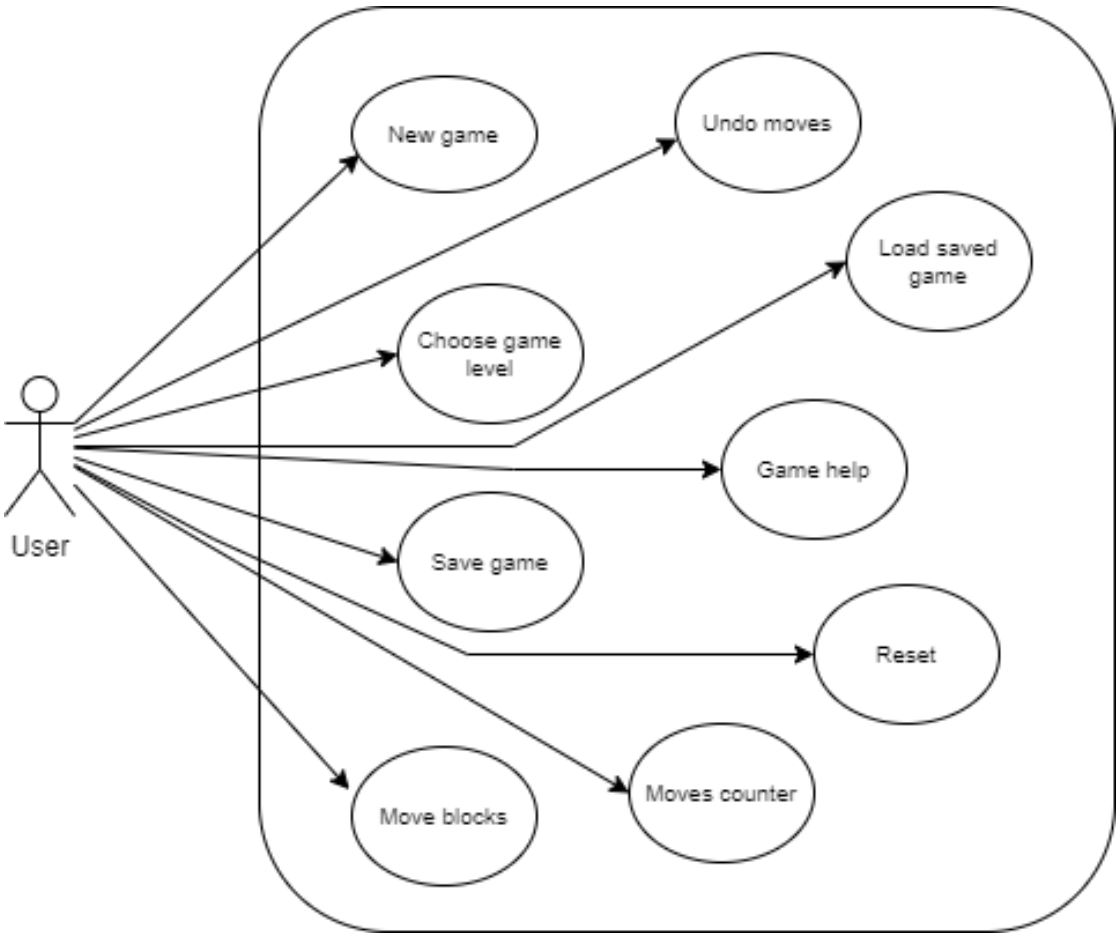
RE_05. Undo previous moves up to the game's start.

RE_06. Help to solve the puzzle.

RE_07. Save the actual game's state.

RE_08. Reset the game.

2.2. UML Use case diagram



3. Specific Requirements

ID	RE_01
Name	New game
Description	User wants to start a new game
Actors	User
Triggers	“Play” button is pressed
Preconditions	“Play” button must be visible
Post Conditions	Game screen is displayed, where cells are placed on the first move. Player can now make the next move.

ID	RE_02
Name	Choose game level
Description	User can choose the start board configuration between many alternatives
Actors	User
Triggers	User asks to start a new game (before to go in game screen) RE_01
Preconditions	There must be a number of possible game configurations available
Post Conditions	A screen is displayed, where one of the configurations can be chosen (entering it is positioned on the first configuration). After desired configuration chosen, a new game starts

ID	RE_03
Name	Load saved game
Description	Player wants to continue a previous saved game
Actors	User
Triggers	“Load” button is pressed
Preconditions	A previous partial game must be saved “Load” button must be visible
Post Conditions	It will be possible to choose between previously saved games. Game screen is displayed, with last played move and moves number = last played move

ID	RE_04
Name	Move block
Description	Move a block to a free position equal in size to the block or greater and keep a moves counter
Actors	User
Triggers	User taps and drags a block in the direction he wants to move it
Preconditions	User has to start a game or load a previous one
Post Conditions	If there is enough free space the move is made and the moves counter is incremented, otherwise the block is not moved

ID	RE_05
Name	Undo move
Description	Undo of the last move made and restoration of the previous situation. It is possible to return to the beginning of the game by undoing all the moves made
Actors	User
Triggers	Click on undo button
Preconditions	User has to start a game or load a previous one and do any moves.
Post Conditions	The position of the blocks is restored to the penultimate move or eventually it returns to the beginning of the game.

ID	RE_06
Name	Next best move
Description	Help to solve the puzzle by making the best move
Actors	User
Triggers	Click on next best move button
Preconditions	User has to start a game or load a previous one
Post Conditions	The best move to solve the puzzle is made and eventually the puzzle is solved

ID	RE_07
Name	Save Game
Description	Option to save game progress
Actors	User
Triggers	Click on save button
Preconditions	User has to start a game or load a previous one and do any moves
Post Conditions	Game is saved and ready to be loaded again

ID	RE_08
Name	Reset
Description	Reset game level to initial situation
Actors	User
Triggers	Click on reset button
Preconditions	User has to start a game or load a previous one and do any moves
Post Conditions	Progress are setted to initial state