

Requirements specification Sprint 5

The goal is to develop a player versus the computer feature in our 2048 clone. These requirements extend the previously defined requirements.

All of the requirements have each been given a unique identifier followed by a number:

- "I" for interface requirements;
- "AI" for the solver requirements;
- "U" for undo-function requirements;
- "R" for redo-function requirements.

Functional Requirements

User Interface

I1: The user-interface should have an undo button that the player can click to use the undo function.

I2: Next to the undo button the interface should have a redo button that the player can click to use the redo function.

I3: The tiles in the grid should be animated during a move, visualizing the direction the tiles move in.

Undo/redo

U1: With the undo button the user should be able to go multiple moves back.

R1: After a move is undone, the user should be able to go a move forward with the redo function.

R2: It should be possible to redo all of the undone moves until a new move is made.

Solver

AI1: The AI should be able to win 50% of the singleplayer-games it plays.

AI2: The player should be able to choose in the multiplayer menu to play versus the computer instead of a different player.

AI3: The AI should be able to look at the player's grid and add a tile to it that would hinder the player the most from winning.

AI4: The AI should be able to make an effective move for the player when the player asks for a hint.