Reflection on Sprint #5

Game: 2048
Group: 21

User Story	Task	Assigned to	Estimated Effort	Actual Effort	Done	Notes
Story 1	Exercise 1	Jente, Jochem, Piet	20 hours (Jente & Jochem), 10 hours (Piet) (very hard)	40 (Jente & Jochem), 20 (Piet) (very hard)	Semi	Note 1
Story 2	Exercise 1	Piet	12 hours (hard)	12 (hard)	Yes	
Story 3 & 4	Exercise 1	Arthur	8 hours (medium)	12 (medium)	Yes	
N/A	Exercise 2 Command Pattern	Paul	6 hours (medium)	6 (medium)	Yes	
N/A	Exercise 2 State Pattern	Arthur	6 hours (medium)	12 (medium)	Yes	
N/A	Exercise 3 MVC Pattern	Jente, Piet	12 hours each (hard)	6 (medium)	Yes	

Note 1

We have decided to implement multiple solvers. One is trying to mimic the human strategy and another uses the expectimax algorithm. The human-like solver is finished and wins about 30% of its games. The other solver is not finished and therefore has not been benchmarked yet. It is used however to provide hints to the player in the singleplayer game. The human-like solver is used to solve the games and to play against.

User Stories

Below the user stories for this sprint are defined.

Story 1

As a user, I want to be able to let the game be solved for me when I am stuck or when I want to see how it's done.

Story 2

As a user, I want to see how tiles are moving in order to gain a better understanding of the game.

Story 3

As a user, I want to be able to undo a move that I am not happy with.

Story 4

As a user, I want to have the option to redo the move I made after I have undone it.

Main Problems encountered

Description

The solver using the expectimax algorithm turned out to be very hard to implement. We have tried other algorithms, namely the alpha-beta and minimax, but these also did not work. We will continue developing this solver the next sprint.

Reaction

We kept trying and continued doing research until we were out of time.