

Final Project Proposal: 2048

Overview:

Our final project will be a terminal recreation of the iconic game 2048, which was originally created by Gabriele Cirulli on the 9th of March, 2014. The objective of the game will be to add blocks with values that are exponents of 2 until the user reaches the 2048 block.

Gameplay:

- Use WASD keys to shift all the blocks into one direction
- The values are only added if the 2 numbers are the same
- Spawns one 2 every turn in a random empty position
 - If the blocks cannot be shifted in a direction, a two cannot spawn
- Score is increased by the value of every new tile created from two tiles combining
- User wins if they reach the 2048 block
- User loses if the grid is filled and no blocks can be added

Key Parts:

- Scanner: detects input direction from the user
- 2D Arrays: set up/shift/add the 4*4 grid of blocks
- Sorting Algos: sorts leaderboard of times and points
- currentTimeMillis: tracks time of game

Extras (Subject to testing):

- Power-up blocks that randomly generate during gameplay that may provide a score multiplier or explode blocks upon activation
- ASCII art to spice up the user experience (Walrus???)