1024 Game

Overview

The 1024 Game is a simple sliding puzzle game where the objective is to combine tiles with the same number to form the tile with the number 1024. The game is played on a 4x4 grid and uses the keys 'w', 'a', 's', 'd' for movement.

How to Play

1. The game starts with one tile on a 4x4 board.

2. Use the following keys to move the tiles:

   o 'w' to move up

   o 'a' to move left

   o 's' to move down

   o 'd' to move right

3. When two tiles with the same number touch, they merge into one tile with double the value.

4. After each move, a new tile with a value of 2 or 4 is added to a random empty position on the board.

5. The game is won when a tile with the number 1024 is created.

6. The game is lost when no moves are possible, i.e., the board is full, and no adjacent tiles can be merged.

Controls

- w - Move tiles up

- a - Move tiles left

- s - Move tiles down

- d - Move tiles right

Code Structure

- initBoard(): Initializes the board with one random tile.

- printBoard(): Prints the current state of the board.

- moveLeft(): Moves tiles left and merges them if possible. Similar functions should be implemented for moveRight(), moveUp(), and moveDown().

- addRandomTile(): Adds a new tile with a value of 2 or 4 at a random empty position on the board.

- gameWon(): Checks if a tile with the number 1024 exists on the board.

- gameLost(): Checks if no more moves are possible.