

Sliding Puzzle

Classes:

Class Config:

- Gathers and stores information about the player(name, game type, difficulty, rows/columns)

Class Setup:

- Prompts the user for the Config(This allows to the config to be changed easily whenever needed)

Class Board:

- Simple class that creates a row x column array with an option to display the board.

Abstract Class Game:

- An abstract class that can be extended for various games. Holds a Board object and winningState

Class SlidingGame extends Game:

- Fills the Board held in game with numbers, checks for valid moves, and shuffles the board.

Class Play:

- Play the game. Currently it only plays Sliding Game but if other games are needed can be extended to play any game chosen by the player.

Class Main:

- Holds the introduction as well as the logic behind playing the game on repeat.

Extendability/Scalability:

- My main focus was for other games to be easily added whenever needed. Simple creating a new class extending Game and introducing a “game type” would allow the user to select the game they want to play and play that game. As long as the game is built on a board like the sliding game it should be pretty easy to extend.

UML diagram:

