2048 Game UML Diagram

Tile

- val: int

+ Tile(val: int)
+ getVal(): int

Board

- SIZE: int
- TILES: int
- RANDOM_DISTRIBUTION: int[]
- board: Tile[][]

+ Board()
+ Board(size: int)
+ update(direction: String): boolean
+ getSize(): int
+ getBoardState(): Tile[][]
+ printBoard()
+ gameOverCode(): int
+ getScore(): int
- emptyAt(num: int): boolean
- emptyAt(y: int, x: int): boolean
- isEmpty(): boolean
- isFull(): boolean
- add(tile: Tile, y: int, x: int)
- addTile(tile: Tile, position: int)
- addRandomTile(): boolean
- remove(y: int, x: int)
- tileCount(): int
- shiftRight(): boolean
- shiftLeft(): boolean
- shiftUp(): boolean
- shiftDown(): boolean
- exists(y: int, x: int): boolean
- valAt(y: int, x: int): int
- boardValue(): int

View

- board: Board
- tileList: JLabel[]
- panelList: JPanel[]
- boardSize: int

+ View()
- handleKeyPress(keyCode: int)
- refreshBoard()
- playSound(soundFile: String)
- setBottomBar()
- setgameBoard()
- setMainMenu()
- setLeaderBoard()
- setUsernameEntry(won: boolean)
- switchPanels(panelNo: int)
- leaderboardPos(score: int): int
- addToLeaderboard(toAdd: String, pos: int)
- getPanelList(): JPanel[]
- getBoardSize(): int

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