#### Main

+ main(): void

+ printBoard(): void

### Console

+ chooseCell(): String

+ chooseAction(): String

+ confirmAction(): boolean

## Flag (Enum)

+ symbol: String

### Validator

+ various methods

## **Board**

- board: Cell [][]

- boardSize: int

+ fillArrayWithCells(): void

+ generateBoard(): void

+ generateMines(): ArrayList <Integer>

+ placeMines(): int

+ initliazeCells(): void

+ revealMines(): void

+ setNumberOfSurroundingMines: void

+ revealNumberOfSurroundingMines: void

+ printBoard(): void

- countHowManyMines(): int

- selectCell(): Cell

- getBoard(): Cell[][]

setBoard(): void

# GameEngine

- numOfMineFlagsRemaining: int

- numOfActualMinesRemaining: int

- mineBoard: Board

+ flagCell: void

+ uncoverCell(): boolean

+hasWon: boolean

+getBombFlagCount(): int

+ uncoverAllCells(): void

## Cell

- cellName: String

- cellNumber: int

- cellNumber: int

- hasMine: boolean

- display: String

- flag: Flag

- numberOfSurroundingMines: int

- covered: boolean

- isTopRow: boolean

- isBottomRow: boolean

- isLeftColumn: boolean

- isRightColumn: boolean

- row: int

- column: int

+ changeCover(): void

+ getCovered(): boolean

+ getDisplay(): String

+ setDisplay(): void

+ setFlag(): void

+ getFlag(): Flag

+ setNumberOfSurroundingCells(): v

+ getNumberOfSurroundingCells(): ii

+ setRow(): void

+ getRow(): int

+ setColumn(): void

+ getColumn(): int

+ setCellNumber(): void

+ getCellNumber(): int

+ isHasMine(): boolean

+ setHasMine(): void

+ toString(): String