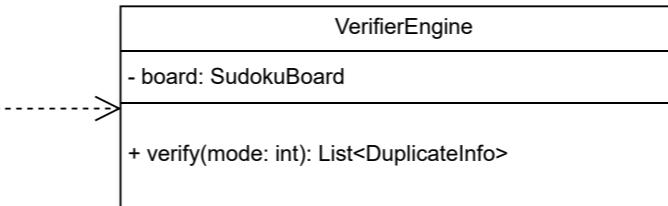**Main**

+ main(args: String[]) : void

create

SudokuVerifier

- board: SudokuBoard
- mode: int

+ runValidation(): void
- printDuplicates(dups: List<DuplicateInfo>, type: RegionType): void

VerifierEngine

- board: SudokuBoard

+ verify(mode: int): List<DuplicateInfo>

Use

Use

Use

DuplicateInfo

- regionType: RegionType
- index: int
- value: int
- positions: int[]

Use

<<*Interface*>>
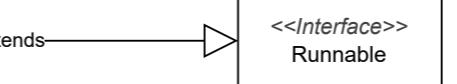Runnable

Extends

<<*Interface*>>
Validator

+ run(): void
+ validate(): void

Use

<<enumeration>>
RegionType

ROW
COL
BOX

RowValidator

- board: SudokuBoard
- dups: List<DuplicateInfo>
- row: int

+ run(): void
+ validate(): void

ColValidator

- board: SudokuBoard
- dups: List<DuplicateInfo>
- col: int

+ run(): void
+ validate(): void

BoxValidator

- board: SudokuBoard
- dups: List<DuplicateInfo>
- boxIndex: int

+ run(): void
+ validate(): void

creates

SudokuBoard

- grid: int[][]

+ getGrid(): int[][]

ValidatorFactory

+ createRowValidator(board: SudokuBoard, dups: List<DuplicateInfo>, index: int): Validator
+ createColValidator(board: SudokuBoard, dups: List<DuplicateInfo>, index: int): Validator
+ createBoxValidator(board: SudokuBoard, dups: List<DuplicateInfo>, index: int): Validator