ElementaryRule +ElementaryRule(ruleNum: int) +getNumSubrules(): int +getNeighborhood(cellIdx: int, gen: Generation gen, bc: BoundaryConditions bc): Cell[] +evolve(neighborhood: Cell[]): EvolvedCell +toString(): String

«enumeration» CellState OFF('.') ON('O') -symbol: char -SYMBOL TO STATE: Map<Character, CellState> -CellState(symbol: char) +getState(symbol: char): CellState +toString(): String

AutomatonMeasurements

+hammingDistance(q1: Generation, q2: Generation): int +hammingDistance(stepNum: int, a: Automaton): int +hammingDistances(a: Automaton): int[] +subruleCount(stepNum: int, a: Automaton): int[] +subruleCounts(a: Automaton): int[][]

FixedBoundaryConditions +FixedBoundaryConditions(CellState left, CellState right) +getLeftState(): CellState +qetRiqhtState(): CellState +getNeighbor(cellIdx: int, offset: int, gen: Generation): Cell

```
TotalisticRule
                      Rule
-ruleNum: int
#Rule(ruleNum: int)
                                                         +TotalisticRule(ruleNum: int)
+getRuleNum(): int
                                                         +getNumSubrules(): int
                                                         +getNeighborhood(cellIdx: int,
+evolve(gen: Generation,
        bc: BoundaryConditions): Generation
                                                                          gen: Generation gen,
+getNumSubrules(): int
                                                                          bc: BoundaryConditions bc): Cell[]
                                                         +evolve(neighborhood: Cell[]): EvolvedCell
+getNeighborhood(cellIdx: int,
                                                         +toString(): String
                 gen: Generation,
                 bc: BoundaryConditions): Cell[]
+evolve(neighborhood: Cell[]): EvolvedCell
+toString(): String
                                                                   Generation
                                                                                                          Cell
                   Automaton
                                                                                                 -state: CellState
 -rule: Rule
                                                        -cells: Cell[]
 -generations: List<Generation>
                                                        +Generation(states: CellState[])
                                                                                                 +Cell()
 -bc: BoundaryConditions
                                                                                                 +Cell(state: CellState)
                                                       +Generation(states: String)
 +Automaton(rule: Rule,
                                                       +Generation(Cell[] cells)
                                                                                                 +getState(): CellState
            init: Generation,
                                                       +size(): int
                                                                                                 +toString(): String
                                                        +getCell(int idx): Cell
            bc: BoundaryConditions)
 +getRule(): Rule
                                                       +toString(): String
 +getGeneration(stepNum: int): Generation
 +getBoundaryConditions(): BoundaryConditions
 +evolve(numSteps: int): void
                                                                                                       EvolvedCell
 +qetTotalSteps(): int
                                                                                             -subruleNum: int
 +toString(): String
                                                                                             +EvolvedCell(state: CellState,
 +getHistory(): String
                                                                                                          subruleNum: int)
                                                                                             +getSubruleNum(): int
                                                        CircularBoundaryConditions
                   «interface»
               BoundaryConditions
                                                   +CircularBoundaryConditions()
                                                  +qetNeighbor(cellIdx: int,
    - getNeighbor(cellIdx: int,
```

offset: int,

gen: Generation): Cell

offset: int,

gen: Generation): Cell