

## Game

```
-GRIDWIDTHSTART: double
-GRIDHEIGHT: double
-GRIDHEIGHTSTART: double
-GRIDSIZE: double
-FILE: String
-impossibleAiWins: int
-impossibleHumanWins: int
-mediumAiWins: int
-imediumHumanWins: int
-easyAiWins: int
-easyHumanWins: int
-easyPercentage: double
-mediumPercentage: double
-impossiblePercentage: double
-human: Human
-ai: Al
```

-GRIDWIDTH: double

-humanPositions: ArrayList<Integer>
-aiPositions: ArrayList<Integer>
-humanFinalPositions: ArrayList<Integer>
-aiFinalPositions: ArrayList<Integer>
-nicks: ArrayList<Integer>

-picks: ArrayList<Integer>
-isRunning: boolean
-checkPicksNumber: int

+«constructor»Game()

+«constructor»Game(ipicks: ArrayList<Integer>, difficulty: Difficulty)

+checkPicks(): boolean +isHitAi(location: int): boolean -isHitHuman(location: int): boolean +aiTurn(): int

+determineGridLocation(x: double, y: double): int

+determineCoordinates(location: int): String

+readFileGameInfo()
+printGameInfo(winner: int)
+checkHumanGameOver(): int
+checkAlGameOver(): int

+getFinalAiPositions(): ArrayList<Integer>
+getFinalHumanPositions(): ArrayList<Integer>

+getImpossiblePercentage(): double +getMediumPercentage(): double +getIEasyPercentage(): double +getNextShipNumber(): int +getNextShipLength(): int +getHuman: human

+getAi(): AI

+getHumanPositions(): ArrayList<Integer>