GUI

SetupPhase

Displays setup
battleField()
rightPanel()
botPanel()

EndSetupHandler

Ends setup and goes to attackPhase

BattleShipGUI

- xWindowSize: int
- yWindowSize: int
- primaryStage: Stage
- gameUI: Scene

+main
+start(primaryStage: Stage) -> Exception

Settings

~ botHeight: int
~ yWindowSize: int
~ xWindowSize: int
~ bigGridWidth: int
~ smallGridWidth: int
~ sidePanelWidth: int

BoardGUI

- board: GridPane
- gridSize: int
- gridWidth: int
- actualWidth: double
- shipImage: ImageView
- blocksize: double

+BoardGui(gridSize: int, gridwidth: int)
+addValuesFromArray(boardArray: int, boardType: String)
+getGridSize(): int
+getGridWidth(): int
+getGridBlockSize(): double
+getBoardGrid(): GridPane
+getImage(image: String)
+setupBoardFromShipObjects(ship: Ship)

AttackPhase

- gameUI: Scene
- gameLayout: BorderPane
- guessBoard: BoardGUI
- ownBoard: BoardGUI
- attackingPlayer: String
- player1: Player
- player2: Player
- coordinates: Label

+AttackPhase(scene: Scene, p1: Player, p2: Player, player: String, coord: Label)
+getBoardNode(): BoardGUI
+centerPane(): TilePane
+rightPanel(): TilePane
+botPanel(): GridPane

AttackClickHandler

- playerAttacking: Player
- playerAttacked: Player
- player1: Player
- player2: Player
- thisPlayer: String
- nextPlayer: String
- blockSize: double
- x: int
- y: int
- scene: Scene
- coordinate: Label

+AttackClickHandler(BlockSize: double, scenee: Scene, p1: Player, p2: Player, attackingPlayer: String)

+handler(myEvent: MouseEvent)

Text Version

GameConfiguration

+ setInput(Ship name, Board board) void

+ validateShipProperties(int, len, char orientation) : void

+ playerInputShips(ArrayList, board, shipCount): void

Board

- guessBoard int[][]
- guessing: boolean
- minShipSize: int
- maxShipSize: int
- boardSize: int
- gameBoard: int [][]

+ returnBoard() : void
+ getBoardSize(): int
+ getMinShipSize(): int
+ getMaxShipSize(): int
+ Definitions: enum
+ addShip(char orientation, int length. int column, int row): void

Game

- player1: HumanPlayer
- player2: HumanPlayer

+ clearScreen() : void
+ setupBoard() : void
sleepThread() void
sendAttack()
winCondition()
main()

MenuScreen

+ printMenu():void

AI

- guessed: ArrayList
+ randomCoordinate(): int
+ checkNotAttacked (column, row): boolean
+ playerTurn(): void

Player

- int: Score

+ getScore(): int
+ checkPreviousHit(Board, row, column): boolean
+ sendAttack(Board, row column): void

HumanPlayer

- playerBoard: Board

+ playerTurn() : void

Ship

- length: int
- orientation: char
- column: int
- row: int

+ Ship(char orient, int len, int col, int ro)
+ setShipValues(char orient, int len, int col, int ro) : void