Contents

1 Pseudocode 1

1 Pseudocode

- Player
 - Properties
 - * turn
 - \cdot Boolean
 - \cdot tells if it is this Player's turn or not
 - \cdot probably have to use the main loop to check
 - * fleet
 - · object
 - · each Player has their own Fleet
 - \cdot used to check if Player has lost
 - * gameBoard
 - · object
 - \cdot the Player's Gameboard on which the Fleet would be placed
 - Functions
- Fleet
 - Properties
 - * sunk
 - \cdot boolean
 - \cdot have all the Ships sunk
 - * ships
 - · array
 - · all the Ship object's of the Player
 - Functions
 - * createFleet(Player)
 - \cdot returns a Fleet object of 5 ships, which would be passed to the Gameboard

· the coordinates of the Ships would be null until given coordinates

• Ship

- Properties
 - * length
 - · used when placed Ship
 - * sunk
 - · boolean
 - · updates to true if all the squaresOfShip are hit
 - * squaresOfShip
 - · array
 - \cdot all the Squares that the Ship is on
 - · used to check if Ship has been hit and if sunk
- Functions
 - * markSquareHit(square)
 - · marks the Square as hit
 - * isShipSunk()
 - \cdot boolean
 - · if all the Squares in the squaresofShip have been hit

• Gameboard

- Properties
 - * squares
 - · array
 - · all the Square object on the Gameboard are placed here
 - $*\ notShipAttack$
 - · array
 - · squares hit that are didn't have a ship
 - \cdot we already would know if the square is part of a ship and if it is hit
- Functions
 - * receiveAttack(Square)
 - \cdot sets the Square hit to true
 - * passTurn()

- · pass turn to next player
- * randomShipCoordinates()
 - \cdot returns all the legal coordinates for Ships
 - \cdot // instead though, just if Square is ShipSquare, don't allow
 - · and we would just make the Ships not be vertical when creating so we don't have to make a function to block illegal moves

• Square

- Properties
 - * coordinate
 - · object
 - · a coordinate object
 - * isShipSquare
 - \cdot boolean
 - \cdot is this part of a ship
 - * hit
 - \cdot boolean
 - · changes when square hit
- Functions
- updateSquareShip()
 - * if a ship body is put here, the property is changed
 - * we clear the squareOfShip and put in these new Squares along with their coordinates

• Coordinate

- Properties
 - * x: the letter
 - * y: the number