BATTLESHIP GRID FUNCTIONS

Main.cpp

* Initialize two objects for the Board Class
* Initialize two int for the plater and computer points.

Main()

– We initialize a vector for all the grids of the enemy base by calling SetGrid() function on board class.

* We set a random position of the enemy’s ship by calling SetEnemy Function on Board class.
* Ask if the player wants to start the game or quit. If the choice is start the game then call startGame().

startGame()

* Ask the user who is going to take the first turn.
* Initialize two variables for each player point.
* The game won’t stop until one of the players points become zero
* After the game all the players grid will be displayed and announce the winner then exit the game.

EnemyTurn()

* Initialize a vector to hold all the coordinates that the computer picked.
* Set a delay timer so there will be a delay after the players turn.
* Initialize two variables, attackCoordinate and points.
* AttackCoordinate will be assigned with a number value
* Points will have a value of 1 or 0.
* Once the enemy pick an unpicked coordinate it will call the StartAttackEnemy on the Board class.

PlayerTurn()

* This function will ask for the player to input a coordinate or quit.
* After the input of coordinate, it will call the StartAttack on Board class
* The function verifies if you entered a correct value otherwise it will re ask you to redo it.
* If you decided to quit it will show all the players board and exit the program.

PlayerInit()

* This function reads the csv file that the player created to place all of the ships.
* It will iterate all the ships and call the function deployShip to place all the ships on the grid.

Board.h

* Initialize 4 public string vectors

SetGrid()

* This function will push 100 objects that represents each box on the grid.

GridLayout()

* This function will print a layout of the grid with all the ships displayed.

GridLayoutHidden()

* This function will print a layout of the grid without the ships displayed.

deployShip()

* This function will accept three parameters shipType,startPos and direction.
* The function will set the ship position depending of the type of ship,position and direction.

ShipType()

* This function will take one string parameter
* This function will return a number from 1-5 base on the type of ship.

GetPosition()

* This function will take one string parameter.
* This function will use the first two strings to determine the exact starting position in the grid.
* This function will return an integer.

SetEnemy()

* This function will generate a random position of all the enemy’s ship on the grid.
* This function will use a random number generator to select what combination it will use.

StartAttack()

* This function will take one string parameter
* This given parameter will be used to determine the exact position of that the player selected.
* It will verify if there is a ship on that selected grid and prompt for a message if the attack is missed or hit.
* This function will return 1 if the attack is hit then zero otherwise.

StartAttackEnemy()

* This function will take one int parameter.
* This parameter is used to location the grid.
* It will verify if the attack is missed or a hit.
* This function will return 1 if the attack is hit then zero otherwise.