Requirements

Make a menu with choices of playing the normal game and playing a test game

# Normal Game:

Make a board with an array with 10 by 10, 2 dimensional array

Make 4 different arrays for the different types of ships as seen below with a class overshadowing this called ‘Ships’ with a how\_big variable and an array of coordinates for each ship, each having coordinates and a Boolean ‘isSunk’ variable

Then randomly generate squares to be ships and set the square as a ‘2’,’3’,’4’ or ’5’ in the 2 dimensional array and the positions in the objects

Randomly generating: Pick a random square, if empty, then pick a random direction and keep setting the squares as a ship. If you hit an obstacle, choose another direction from the starting square. If all directions are invalid, choose another square

User Input:

Ask for a row (letter (A-J)), then ask for a column (number). If statement to check and if it hit a ship replace square with X, else replace with O.

Check if ship has been sunk by checking coordinates of the object and if ship has been sunk, say that the ship has been sunk and replace the X’s of that ship with L’s

Check if you’ve won the game, by checking each ship object and seeing if it is sunk

# Test Game:

Set up just like normal game, but instead of randomly generating ships, give the ships set positions

Then ask for input the same way

# Saving and loading game:

Save the board

Load the board

4 – 2\*1

3 – 3\*1

2 - 4\*1

1 – 5\*1