MET CS 664-A1 **Fall 2021**
Artificial Intelligence **In Class Lab #3**

Battleship

This is the final lab for the semester. You are to write a program that plays Battleship. The algorithm for this program is to be designed independently. You will have your algorithm tested in a Battleship tournament that will take place on December 8th.

Your program will be written in Java. Don't worry if you don't know Java, the code that you will write will only be located in one module, where I have provided a template for you to modify. I am OK with you talking to people about your algorithms but do remember you will be competing against people in the tournament.

There will be a tournament that will pit player against player on December 8th. The structure of the tournament will be discussed as the date approaches. It will most likely be 16/8/4/2/1. You will get one point added to your grade in this class for each round you survive. If you survice the first round you get one point. The winner of the tournament gets 5 points added to their semester grade. Each contest will be 3 games of going first, and 3 games of going 2nd. If needed the first player in game 7 will be randomly chosen.

Battleship is unobservable, with imperfect information. Therefore, you cannot use minimax to solve it. Your algorithm should be looking at two aspects. Ship placement and game play. Do not assume that the placement of your opponent's ships is constant. Once the tournament starts you cannot modify your code.

There is a bank of code that you will be able to download from Blackboard after November 10th. For the first lab, please get this code running. You can (and should) work on this code outside of class. Name your player <Your_initials>_player.java Please submit the player.java file to Blackboard by 3:00pm on December 8th

Good luck!