**420-316 Final Project**

**BattleShip:**

**These requirements are tentative. If they change, you will be notified and the version number will change.**

**Requirements version: 1.000001**

**Rules:**

Please refer to the following links:

* <https://en.wikipedia.org/wiki/Battleship_(game)>
* <https://www.youtube.com/watch?v=q0qpQ8doUp8>

**Technical Requirements:**

* Code should be divided into classes
* A UML diagram has to be developed and submitted along with the code
* Must demonstrate the use of properties
* An eye catchy GUI is a must
* The user should be able to set the level of intelligence of the computer. A minimum of three levels is required: Not smart, Medium, and Super Smart
* Must implement save and load. The save option should save the current state of the game. The load should restore the state of the game to what it was.
* You must implement an option that if the user does not play within a certain amount of time, he/she will lose his/her turn and the computer will take its turn.
* Should get the name of the human player and keep track of the number of wins, losses, he/she has. The scores should be saved permanently on the machine.
* For debugging purposes only, have an option to display the placement of the computer ships
* Computer ships placement should be done randomly
* Once a game starts, the level of computer intelligence should not be allowed to be changed

**Presentation:**

* The first thing you present must be the UML diagram of your project.
* Followed by a demo of the game
* You must respect the allocated time or else you will be cut and your mark will be reduced.
* All group members must participate in talking during the presentation

**Grading:**

* Grading will be done in a comparison to the project submitted by other group. Of course, the minimum requirements set above must be completed.

**Submission:**

* One submission ONLY per group
* A report detailing the tasks performed by each team member
* The whole project zipped as usual
* The UML diagram placed in the root folder of the project

**Have fun ☺**