Artificial Intelligence Assignment #1

Due date: 11:55pm, Wednesday April 22nd, 2020

Programming Language:

- Python 3.x
- There is no external library required for this assignment.
- Possible to use any IDE.

Grading:

- Total: 20 points
- Powerpoint slide: 10 points
- Code (Algorithm): 10 points

Assignment Information:

- You can only edit the 'assignment.py' python file. Do not edit other python files.
- You are not able to access the solution directly. Please do not access the Problem class directly.
- To check the correctness of a Sudoku entry, use "self.problem.checker(x, y, val)" function, which will return 1 if the value is the correct answer for position (x, y), otherwise 0.
- There are two settings, easy and hard. The easy setting provides more revealed answers in the Sudoku puzzle, compared to the hard setting.

Need to Do:

- In assignment.py, implement a function, **solver**.
- It is allowed to add any new class or function, but **solver** function is required.

How to test:

- You are able to run your test locally.
- In the GUI, click on "__Easy__" or "__Hard__" button solve each setting. There are 46 easy problems and 100 hard problems.
- Once all the problems are solved for a given setting, the GUI will display the message "Submitted successfully", and the numbers for "Count" and "Average".
- Count is the total counter for the number of tries for all cells. Average is the count divided by the number of problems.

Need to include:

- Your code
- Power point slide (maximum 4 slides excluding title)
    - Explanation of method and algorithm to solve the problem (maximum 3 slides)
    - Screenshots of best scores in both setting (1 slide)

Submission:

- Submit your file in YSCEC -> Assignment #1.
- Change your assignment.py file name to be your university number. (ex. 2012123123.py)
- Create a zip file that includes your xxxxxx.py and powerpoint slide.
- The name of the zip file also should be your university number (ex. 2012123123.zip)

Late Submission Penalty:

- Late submission is allowed, but there is a 20% point reduction per day up to a maximum of four days.

Download:

- Python 3.x : https://www.python.org/downloads/