**Artificial Intelligence Assignment #2**

Due date: Friday, 24, March 2017, 11:55 pm

No Late Submission

**Programming Language:**

* Python 3.6
* There is no external library required for this assignment.
* Possible to use any IDE.

**Grading:**

* Total: 20 points
* Code (Algorithm): 10 points
* Power point slide: 5 points
* Ranking: 5 points

**Given Code:**

* assignment.py: Need to implement “solver” function.
* Problem.py: Contains “checker” function. Please **do not access this class directly.**
* Problem\_100.py: Contains problem set. Please **do not access this class directly.**

**Assignment Information:**

* You are starting from the empty puzzle just like “Assignment #1”.
* You can try to open some cells until you think it is enough to find a unique solution.
* You are not able to access the solution directly. Please do not access the Problem class directly.
* You can 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.
* If you click on “Start” button it will solve total 100 sudoku problems in your local machine.
* You need to click “Submit” button whenever you are ready to join the competition.
* Clicking the “Submit” button will display your ranking and that will be also graded.
* You can submit your counter multiple times in every 10 minutes.

**Need to Do:**

* Add your univ\_id (University number) and Password (phone number in YSCEC) at the top part of assignemt.py file to submit your counter.
* In “SudokuSolver” class, there is “solver” function. You need to add your search algorithm and the method to open empty cells in this function.
* It is okay to add any new class or function, but always need to start from “solver” function.

**How to test:**

* You are able to run your test locally.
* When you click on start, it will show your method running slowly in the first problem, then it will run 99 other problems faster.
* You will find “Count” and “Average” in the UI. Count is the total counter you tried for each cell. Average is “Total Counter”/100.
* When you click on “submit” button, you will be able to submit your counter into our database and it will display the ranking in “Ranking” field.
* “Total” field is total students who submitted their counter.
* You are able to submit your counter multiple times in every 10 minutes. If you submit your counter before 10 minutes, you will see a message.

**Need to include:**

* Your code
* Power point slide (maximum 2 slides excluding the title explaining your algorithm or method to solve the problem)

**Submission:**

* Submit your file in YSCEC -> Assignment #2.
* Change your assignment.py file name to be your university number. (ex. 2012123123.py)
* Create a zip file that includes your xxxxxx.py and power point slide.
* The name of the zip file also should be your university number (ex. 2012123123.zip)

**Late Submission Penalty:**

* We will not accept any late submission for this assignment.

**Download:**

* Python 3.6.xx : <https://www.python.org/downloads/>