

Artificial Intelligence Assignment #1

(2021-09-16 updated)

Due Date

- 2021-10-11 (Monday) 11:59pm

Programming Details

- Python 3 (recommended version is 3.8 for loading .pyc file)
- There is no external library required for this assignment.
- Possible to use any IDE (SublimeText, VS Code, Vim, ...)

Grading Policy

- Threshold for pass (average) : **Easy ≤ 200** and **Hard ≤ 250**

Assignment Details

- You can only edit the **assignment.py** python file. Do not edit any other files.
- You are not allowed to access the dataset file **sudoku_50.pyc**
- You are not allowed to memorize test data and write shortcuts.
(ex: if-else logic for specific puzzle board)
- To check the correctness of a Sudoku entry, use **self.problem.checker(x, y, val)**
This function will return 1 if the value is correct; otherwise, return 0.
- You are not allowed to access **Problem** class except the **checker** function.
- There are two settings, easy and hard.
The easy setting provides more revealed answers compared to the hard settings.

Need to Do

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

How to Test Your Code

- You can run your test locally.
- In the GUI, click **__Easy__** and **__Hard__** buttons to solve each setting.
There are 46 easy problems and 100 hard problems.
- **Count** is the total number of calling **self.problem.checker** function.
Average is the count divided by the number of problems.

Need to Include

- Zip of your code. (**student_id.py** in **student_id.zip**)

Submission

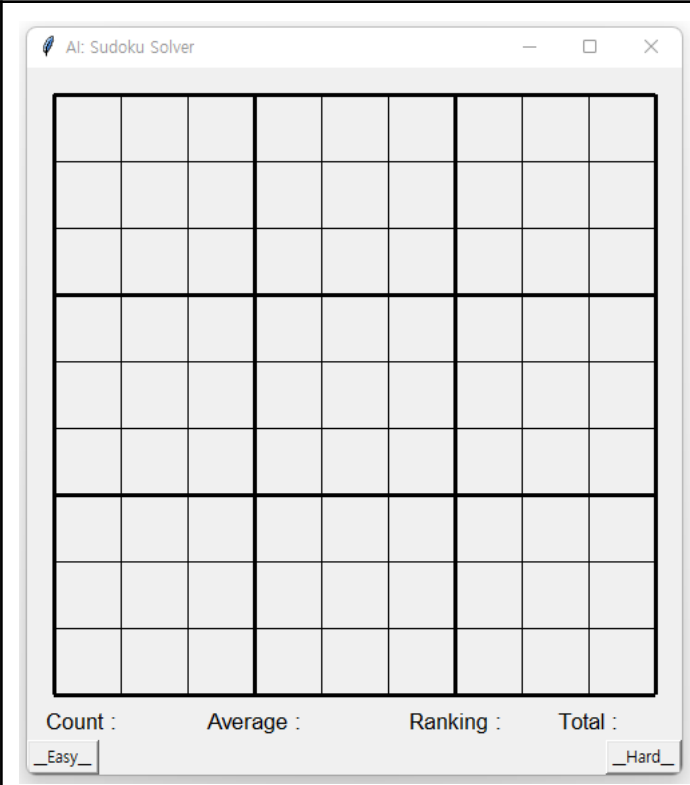
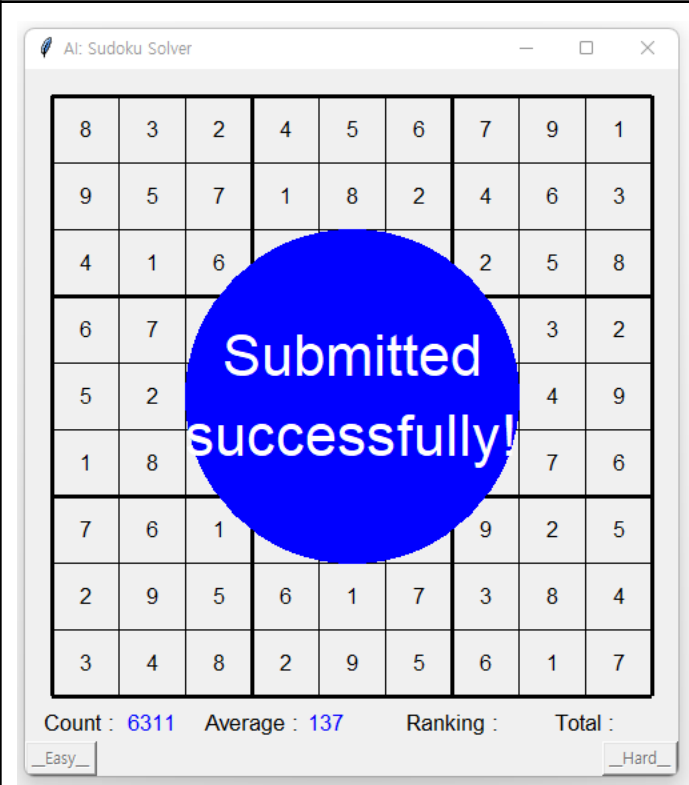
- Submit your file in ETL → Assignment 1
- Change your **assignment.py** file name to be your **student id**. (ex: **2021-12345.py**)
- Zip your **student_id.py** into **student_id.zip** (ex: **2021-12345.zip**)

Late Submission Penalty

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

Download

- Python 3 : <https://www.python.org/downloads/>
- Alternatively, you can use **Anaconda** to download a specific version of python.
<https://www.anaconda.com/products/individual-d#Downloads>

	
running assignment.py	final screen after finish all test cases (easy)