Confidence

Target:

Revisit:

- File operations in python.
- Error handling.

Resources:

1) Your beautiful notes.
2) Corey Schafar [File operations]
3) Corey Schafar [Error handling]

Project I:

Build a program that solve any system of equations using Gauss Jordan elimination method. Your program must contains 2 major files.

- First file is named getting_info.py and contains 2 essential functions:

1) examples(): This function creates a file called user_manual.txt to show the user how to use the program. It takes the number of equations from the user and creates the file called above depending on it.
   If the number of equations equals 3 the file must be exactly like this and if it equals 2 the file must be exactly like this and so on.
   Finally, The function must print the path of the created file on your pc in the terminal to the user. Ex: D:\AI\Project I\user_manual.txt

2) getting_equations(): This function reads a file called equations.txt at the same directory and stores the factors of the equations. If there are 3 equations, The file must be look like this. #Check if this file is existed or not
   It's guaranteed that there is no error handling in this file. If the factor of any unknown equals 0, This unknown won't be in the equation.
   Equations may be shuffled like this.

- Second file is named main.py and also contains 2 essential functions. (You have to import first file in the second file):

  1) gauss_jordan_elimination(): This function takes the factors as parameters and solve the equations. The solution must be one of the following:
     - One solution
     - Infinite number of solutions
     - No solution

     #Having any troubles? Google it.

  2) main(): This function takes the solution and store it in a text file called solution.txt if there is one solution the file must be like this. If there is no solution just write in the file "There is no solution." and so on for infinite number of solutions.
     Finally, The function must print the path of the created file on your pc in the terminal to the user. Ex: D:\AI\Project I\solution.txt

Notes:

- Unknowns must be written in this formula x_2 not this x2.
- You are free to use build in functions.
- It's recommended to use comments and docstrings.
- You are free to import ONLY ONE external library and use ONLY ONE function from it. #Choose wisely as a team.

Evaluation:

Project I: 20 points.

Deadline:

By the offline meeting.