Tutorial 2 – Jupyter notebook and Python revision

Aim:

- Define AI
- Create a jupyter lab notebook
- Revise Python

This tutorial will serve as Python revision and help you to become proficient in using Jupiter notebooks. We will usually start tutorials with important definitions.

1. Imagine you are at a gathering, and someone asks you what is Artificial Intelligence?

Without looking at the lecture or searching Google, try to answer the question in your own words.

You will also likely be asked when you think human level AI will be achieved. Make a prediction based on your own views and create a time capsule for yourself to see if you were correct in the future.

2. Recreate the Tutorial-week2.html file in a jupyter notebook

Start jupyter notebook using Anaconda Navigator.

Download and open the attached Tutorial-week2.html file.

Now recreate the same file on your own Jupiter notebook. Please type rather than copy and paste and explore Python as you go. Save the notebook as tut2.ipynb and note where it is stored. You can move other notebooks to this location to examine them (see task 4 below).

Once you have completed creating and working through the notebook, try the next exercise for a challenge.

3. Python exercise

Write a program that reads in a text file and prints out the word frequencies. Create a separate Jupiter notebook to document the development of your program. Examplei

input_text = "The rain fell on the car. The rain fell on the ground."

…..your program….

Output: the-3, rain-2, fell-2, on-2, car-1, ground-1

4. Finally

Have a look at this matplotlib notebook for an example of how well a notebook can serve as a means of disseminating scientific information.

https://nbviewer.jupyter.org/github/jrjohansson/scientific-python-lectures/blob/master/Lecture-4-Matplotlib.ipynb

END.