23.1.23

Data Science Laboratory 1

Lab 1

1. Get familiar with Anaconda and Spyder for writing code.

   - Start by creating a simple .py file called `hello_world.py` which prints "Hello, world!".
   - Try using variables in `hello_world.py`.
   - Create a .py file called `name.py` which prints out a name, then prints out that same name in uppercase, lowercase and with just the first letters capitalised. Try doing this with Python methods, rather than manually.
   - For the same file as in the previous challenge, find out what `rstrip()` does. What about `\t` and `\n`?
   - Create a .py file called `numbers` which adds, subtracts, multiplies and divides several integers and floats of your choosing.
   - The Python community's philosophy is contained in 'The Zen of Python' by Tim Peters. You can access this brief set of principles for writing good Python code by entering `import this` into your interpreter. Do this and try to understand what each line is saying.

2. Create your own GitHub account and repo.

   - Create a local repo containing a simple script that calculates the Fibonacci sequence (`https://en.wikipedia.org/wiki/Fibonacci_number`). Practice committing and pushing changes to your GitHub repo (you are recommended to practice using the command line, but also feel free to use a GUI interface). Remember to use messages when you commit so you can keep track of what you have done.

3. Make sure your code is PEP-8 compliant, including proper comments and header detail.