PYTHON FOUNDATION PART I (ADD COSTUMIZED EXAMPLE RELATED TO EARTH OBSERVATION FOR EACH POINT)

1. use Jupyter notebooks for writing and documenting your code

PYTHON FOUNDATION PART II

1. define and use variables
2. describe the concept of a data type
3. determine the data type of a variable in Python
4. understand the basics of version control
5. conduct basic data type conversions
6. store and access values in a list
7. explain the concept of an index value
8. use Git and GitHub to record changes to your files
9. create a for loop and use it to repeat a section of code
10. understand the logic of conditional statements and comparison operators
11. write a short piece of pseudo-code
12. format and indent the code when using for-loops and conditional statements
13. explain how functions are used and why they are useful
14. create simple functions with parameters and return values
15. save functions to a separate script file
16. write docstrings for functions and script files
17. explain what a Python module is and how they can be used
18. search for documentation about a module
19. read tabular data from a file using the Pandas module
20. understand the structure and basic functionality of a Pandas DataFrame
21. explore data in a Pandas DataFrame
22. manage and analyze tabular data using Pandas
23. Repeat an analysis workflow for several input files
24. understand common Python errors
25. follow a simple set of guidelines to debug programs efficiently