Python Installation and Setup

- Python 3 is ideal but not required
- Helpful websites:
    - Great guide for Windows or Linux: https://realpython.com/installing-python/
    - Great guide for macOS: https://www.saintlad.com/install-python-3-on-mac/
    - For macOS, home brew really does save you a lot in the long run but can be challenging for beginners

Jupyter Notebook Installation and Setup

- Jupyter (or ipython) is what many data scientists use
- Makes it very easy to edit and test code
- Helpful websites:
    - Jupyter website install page: https://jupyter.org/install
    - More information: https://jupyter.org/

Additional Helpful Tools

- Code academy: https://www.codecademy.com/learn/learn-python-3
- Learnpython.org: https://www.learnpython.org/
- Online console (repl): https://www.onlinegdb.com/online_python_interpreter
- iPhone/iPad app: https://apps.apple.com/us/app/code-playground/id1452106609

Python Basics

- Some Extra Materials
  - https://www.learnpython.org/
  - https://www.codecademy.com/learn/learn-python
  - https://hackr.io/tutorials/learn-python
  - Stack Overflow (www.stackoverflow.com)
- Common Variable Types:
  - Strings
  - Numeric (integers, float)
  - Sequence types (list, tuple, range)
  - Dictionary (dict)
  - Boolean

Conditionals

- If/else/elif
- Equality
- Inequality
- Greater than, less than
- Is None
- Make sure you indent!

Loops

- For loops (most common)
- While loops
- Break
- Continue
- Make sure you indent!

Functions

- Why should we use functions?
- Def
- Function inputs

Classes and Objects

- Python is an "Object Oriented" Language
- What is an object or a class?
    - **Class** — A blueprint created by a programmer for an object. This defines a set of attributes that will characterize any object that is instantiated from this class.
    - **Object** — An instance of a class. This is the realized version of the class, where the class is manifested in the program.
- Links:
    - https://www.w3schools.com/python/python_classes.asp
    - https://www.digitalocean.com/community/tutorials/how-to-construct-classes-and-define-objects-in-python-3

Libraries

- What is a library?
- Datetime Library: https://docs.python.org/3/library/datetime.html
- Import
    - https://www.geeksforgeeks.org/import-module-python/
- PyPi: https://pypi.org/
    - PIP Install command
    - Pendulum PyPi: https://pypi.org/project/pendulum/
    - Pendulum GitHub: https://github.com/sdispater/pendulum