Google Colab and Python

https://colab.research.google.com/

Creating an Account

Colab is accessible via any Google account. It stores files in Google Drive and utilizes free computation resources unless otherwise specified. This makes it easy to jump right into using Python and get familiar with syntax without the headaches of environment setup.

***WARNING*: Don't put any Supply House data or intellectual property in this version of Colab. For sensitive projects, speak with a friendly neighborhood data scientist about how to get access to our safer environment.**

Notebooks

A data scientist's favorite tool. Notebooks are a way of organizing and displaying Python code and results for modeling and analysis. Engineers and computer scientists will frequently avoid notebooks because their needs differ, and Python still works outside of notebooks.

Packages

Python is an open-source programming language which means that everyone is free to use it and develop new features for it. For over three decades it has been growing and having features added to it. If you want to do something in Python, you're probably not the first person to have that thought, and there's likely a package that's been developed specifically for your task! Packages are libraries of functions and tools that you can import into your project or notebook with a single line of code.

https://docs.python.org/3/library/

Data Types

One key concept that may be new to beginner programmers is the idea of types in programming languages. Each language (Python, C, PHP, R, Ruby, Rust, Java, etc.) have

their own set of standard types to be aware of, but you can often simplify them down to numerics, Booleans, strings, and arrays. This isn't technically correct, but it's a useful simplification. Entire college courses are dedicated to this subject and we don't have the time or need to go into that type of nuance.

https://docs.python.org/3/library/stdtypes.html#

Exercise

Visit Kevin's GitHub and download the *Weather_Project_Polars_Meteostat.ipynb* file from the *meteostat*_polars_demo repository.

Follow along through the notebook, running one cell at a time and then complete the bonus activities at the bottom of the notebook if time allows.

Kevin will be available to assist with any issues or questions.

https://github.com/chamberlinkevin/meteostat_polars_demo