Week 2 Day 2

Class Objectives

By the end of this class, students will be able to:

- Identify the differences between homogeneous (same data type) and heterogeneous data (different data types).
- Access and manipulate data within list and dict objects using index-based elements and key-value pairs, respectively.
- Iterate over lists and dicts.
- Visualize and iterate over nested lists and dicts.
- Define and call custom functions.

Functions or **methods** are units of work – like an equation. We give it values and it should do some work or give a value back. Giving a value back is called **returning** a value.

Example of a **function** definition without **return**:

def print_some_text(my_string):   <- **define** the function/method with name and passed value

        print(my_string)   <- do the work

Example of a **function** call:

print_some_text("Halfway done with Week 2!")

Example of a **function** definition with a **return** value:

def add_two_numbers(num_1 , num_2): <- **define** the function/method with name and passed values

        sum = num_1 + num_2   <- do the work

        return sum   <- **return** or pass the value back

Example of **function** call:

answer = add_two_numbers(3, 4)   <- can you guess what the value of answer will be?

Recap on for loops:

'for' means 'for each' or 'for every' – as in,

For each value in this range of values, do some work and move to the next value.

values = ["value1", "value2", "value3"]

for value in values:

        print(value)   <- can you guess what this will print?

Sugar, Flour, Butter

https://umn.bootcampcontent.com/University-of-Minnesota-Boot-Camp/UofM-VIRT-FIN-PT-06-2022-U-LOLC/-/tree/main/01-Sessions/02-Python/2/Activities/02-Stu_Lists

Trading Log

https://umn.bootcampcontent.com/University-of-Minnesota-Boot-Camp/UofM-VIRT-FIN-PT-06-2022-U-LOLC/-/tree/main/01-Sessions/02-Python/2/Activities/04-Stu_Iterate_Lists

Market Capitalization

https://umn.bootcampcontent.com/University-of-Minnesota-Boot-Camp/UofM-VIRT-FIN-PT-06-2022-U-LOLC/-/tree/main/01-Sessions/02-Python/2/Activities/06-Stu_Dictionaries

Weekly Gains

https://umn.bootcampcontent.com/University-of-Minnesota-Boot-Camp/UofM-VIRT-FIN-PT-06-2022-U-LOLC/-/tree/main/01-Sessions/02-Python/2/Activities/08-Stu_Nesting

Finally Functioning

https://umn.bootcampcontent.com/University-of-Minnesota-Boot-Camp/UofM-VIRT-FIN-PT-06-2022-U-LOLC/-/tree/main/01-Sessions/02-Python/2/Activities/10-Stu_Functions