

Exercise 1.4: File Handling in Python

Learning Goals

- Use files to store and retrieve data in Python

Reflection Questions

1. Why is file storage important when you're using Python? What would happen if you didn't store local files?
 - a. File storage is important because it allows you to retain the data that is created when you're running and testing your code. This is necessary for ensuring that data is being recorded correctly, and can be called correctly in other functions. An inability to store local files means that all of your data would disappear as soon as you stopped running the python file, whether intentionally or due to power-loss.
2. In this Exercise you learned about the pickling process with the `pickle.dump()` method. What are pickles? In which situations would you choose to use pickles and why?
 - a. Pickles are primarily used in serializing and deserializing object structure in python. They perform the process of converting a python object to store in a file or database, maintain their state across sessions or for transporting data over a network. You use pickles when you need to create data in one file and then read it in another, or when you simply want to ensure your file's data is consistent across multiple systems.
3. In Python, what function do you use to find out which directory you're currently in? What if you wanted to change your current working directory?
 - a. `getcwd()` is used to find the directory you're currently in. `os.chdir()` is used to change to another directory.
4. Imagine you're working on a Python script and are worried there may be an error in a block of code. How would you approach the situation to prevent the entire script from terminating due to an error?
 - a. A try block with an except, else or finally block will allow you to test a block of code without preventing the code from terminating from an error. Except blocks allow you to handle the error, else blocks execute code when no error is observed, and finally allows you to execute code regardless of the other results.
5. You're now more than halfway through Achievement 1! Take a moment to reflect on your learning in the course so far. How is it going? What's something you're proud of so far? Is there something you're struggling with? What do you need more practice with? Feel free to use these notes to guide your next mentor call.

- a. I'm proud of being able to do most of this myself. File structure and indentation is the thing I need to focus on the most when I'm coding, because often my code is fine, and it's something small tripping me up. I think just doing as much coding as I can in Python is going to be the practice I need currently. The more information I have, the easier Python becomes.