Exercise 1.4: File Handling 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?

   ANSWER: File storage in Python is vital for preserving data between program runs, sharing information, backup, analysis, and offline use. Without it, data would vanish after each session, hindering sharing, recovery, and long-term data retention.

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?

   ANSWER: Python's "pickles" are serialized objects using the **pickle** module. They store complex data, aiding in persistence, caching, interprocess communication, and more. Use pickles in Python to store complex data structures like configs, ML models, or cache results. They ease persistence, interprocess communication, and data sharing. However, avoid long-term storage due to version compatibility.

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?

   ANSWER: In Python, you can use the **os** module to work with directories. To find the current directory, you can use **os.getcwd()**. To change the current working directory, you can use **os.chdir(new_directory_path)**.

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?

   ANSWER: To prevent the entire script from terminating due to an error in a specific block of code, you can use a **try** and **except** block. Wrap the potentially problematic code in the **try** block. If an exception occurs, the script won't terminate; instead, it will execute the code in the corresponding **except** block. This allows you to handle errors gracefully and continue script execution.

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.

   ANSWER: It's going pretty well so far; I love that python can be a lot more straight forward than other languages. I'm glad that It's going well and understand that I still have a lot to learn.