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?

   File storage is important with Python because once the script ends, any variables or data stored within those variables are erased. For example, if you're using a script to create a database of some sort, it doesn't do much good if nothing gets stored to that database once the script terminates and everything added is lost.

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?

   Pickles are used in Python to convert complex data into a stream of bytes that are written into a binary file. Using pickles is good for situations where it is important to uphold the structure of the data you're working with, such as dictionaries.

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?

   Within Python, you can use **import os** to import the **os** module and then use the **os.getcwd()** function. In order to change the working directory, you would use the **os.chdir()** function.

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?

   If there is a section of code that you're worried about it leading to an error, you can implement a **try-except** block to handle any error that might arise. Put the code you suspect could cause an error in the **try** block and then add the error handling in the **except** block. To prevent the script from terminating due to the error, you can use ***while*** **True** before the **try-except** block and adding a **break** statement to the **try** block.

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.

   At this point in the Achievement, I'm feeling confident in the Python syntax that we've covered so far in the exercises. When I feel like I need to look something up, I'm able to have an understanding on the explanations found through either Stack Overflow or articles.