Topic 63 - Data Files: Storing Data

**What**

* This topic shows how to store a string or data into a text file using Python.

**Why**

* **Persistent Data Storage**: Writing data to a file ensures that information can be saved and accessed later, even after the program has ended.
* **File Handling**: Storing data in files is a fundamental task when working with large datasets, logs, configurations, or user-generated content.

**How**

1. **Opening a File to Write Data**  
   You can open a file in **write mode** ("w") to store data in it:

python

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with open("greet.txt", "w") as f:

* + **"w"**: This mode overwrites the file if it already exists. If the file doesn't exist, Python will create it.

1. **Writing Data to the File**  
   You can write a string to the file using the write() method:

python

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with open("greet.txt", "w") as f:

f.write("Hello, world!")

* + This opens the file greet.txt, writes the string "Hello, world!" to it, and then automatically closes the file.

1. **Overwriting the File**
   * If the file greet.txt already exists, using the "w" mode will overwrite any existing content in the file with the new data.
2. **Writing a String Stored in a Variable**  
   If the string you want to store is stored in a variable, you can still write it to the file:

python

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greeting = "Hello, world!"

with open("greet.txt", "w") as f:

f.write(greeting)

* + This allows you to write any string stored in a variable to the file.

**Things to Remember**

* **Overwriting Data**: The "w" mode overwrites the existing content in the file. If you need to append data instead, you would use the "a" mode.
* **File Creation**: If the file doesn't exist, Python will automatically create it when you use "w" mode.