## Topic 8.1: File & 3D Example

## Learning Goals (Topic 8):

- Write code to create and manipulate Multidimensional Arrays
- Given a piece of code, draw a diagram representing the state of references in a multi-dimensional array;
- Write code that reads and manipulates multidimensional array information from a file
- Write code that can create and manipulate ragged arrays

## Example:

- This entire slide set is explaining the coding example I will go through
- We are going to "read in" and store Weather Information!
- We have a "temperature-history-2020.txt" file
- We will be reading in all the information in here and storing it in 3D array
- The array depicts the information for the entire year shown.
- Once this is working, we will expand the program to read in MULTIPLE year files and turn our 3D array into a "sort of" 4D array
- Furthermore, we will see how to "abstract" some of these dimensions away behind Objects in this example

## Pause & Practice

- Consider trying the code out yourself first (or parts of it)
- And then watch my video here where we will read in, store, and present the temperature data!