



Learning Outcomes:

- I will demonstrate my understanding of a 2-dimensional array in Python by using a matrix list.

Warm-Up Assignment:

- N/A

Review of Prior Knowledge:

- Stacks (LIFO)
- Deques (FIFO)
- 1-Dimensional List

Introduction to New Material: (I Do)

- 1-Dimensional Lists (what we've already been working with)
- 2-Dimensional Lists (what we're working with today)

Guided Practice: (We Do)

- 1-Dimensional List (Notepad Document)
- 2-Dimensional List (Excel Document of Classes with Room Numbers, and Teacher Names)
- Build FTC El Dorado League 2-D matrix list
 - File will be similar to the following:
https://github.com/eevans01/development_python/blob/master/10-Matrix/matrix.py

Standards/Expectations:

EK.4.2.4H: Linear search can be used when searching for an item in any list; binary search can be used only when the list is sorted.

EK.5.3.1K: Lists and list operations, such as add, remove, and search, are common in many programs.

EK.5.3.1L: Using lists and procedures as abstractions in programming can result in programs that are easier to develop and maintain.

EK.5.5.1H: Computational methods may use lists and collections to solve problems.

EK.5.5.1I: Lists and other collections can be treated as abstract data types (ADTs) in developing programs.

c.4.D.: identify the data types and objects needed to solve a problem;

c.4.I.: test program solutions with appropriate valid and invalid test data for correctness;