

Data sets/array types

Data sets are a collection of data, There 4 main collection types

- List ✨
 - Ordered, changeable, dups allowed
- Dictionary ✨
 - Ordered, changeable, dups not allowed
 - If there are two keys of the same name, the last one is accessed
- Set
 - Unordered, unchangeable*, dups not allowed
- Tuple
 - Unordered, unchangeable, dups allowed
 - Read-only essentially

✨ = important ones

*not ALWAYS true

Unordered aren't as predictable

Column and row orientation

- Column
 - Grouping by feature
 - Good for accessing a single feature, like averaging ages
- Row
 - Grouping by a single observation
 - Good for accessing by a single instance, like comparing two exact data points

There are trade-offs between the two

Facebook_Friends								
Name			City			Age		
Matt			Los Angeles			27		
Dave			San Francisco			30		
Tim			Oakland			33		

Row Oriented Storage in Memory								
Matt	Los Angeles	27	Dave	San Francisco	30	Tim	Oakland	33

Column Oriented Storage in Memory								
Matt	Dave	Tim	Los Angeles	San Francisco	Oakland	27	30	33

Indexing

Type	Indexing Pattern
List	name[index]
Dictionary	name[key]
Set	For Loop (next slide)
Tuple	name[index]

Accessing = indexing

List and tuple indexes are 0 to (NumOfValues-1)

Iteration

For loops usually > while loops

Recursion is a thing I definitely could do (but probably won't do 'cause its complicated)

Useful Methods

Dictionaries:

- values()
- items()
- keys()

Lists:

- len()
- append()
- sort()

Other:

- range()
- print()
- split()
- type()
- int()
- str()