

9.5.23

Topic: Python Fundamentals

Collection Types:

- Datasets: collection of data points
- Python's collection types:
 - List → ordered, changeable, duplicates allowed
 - Dictionary → ordered, changeable, duplicates not allowed
 - Set → unordered, unchangeable, duplicates not allowed
 - Tuple → unordered, unchangeable, duplicates allowed

Representing Datasets with Code:

- Column-oriented: grouping by features (columns)
- Row-oriented: grouping by a single observation (row)

Indexing

- In order to access values in a collection type, we need to index into it
 - List → name[index]
 - Indices for a list start at 0 for python
 - Dictionary → name[key]
 - Set → for loop
 - Tuple → name[index]

Iteration

- For loops → for *variable* in *collection*:
- While loops → while *condition*:

Useful methods:

- type() → checks the data type of a value