

Recall Week 5

You should be able to:

- Apply exception handling to catch errors in code (try/except, raise, finally)
- Read .txt and .csv files from a local directory using read(), readline(), and readlines() in a pythonic manner (context manager)
- Navigate within the text
- Write .txt to a working directory using 'w' or 'a' as arguments

Week 6

You should be able to:

- Discuss the key characteristics of lists and tuples
- Index and slice list and tuple elements
- Apply Python methods associated with lists and tuples
- Perform standard and nested loops on lists and tuples
- Assess membership and perform operations on lists and tuples

Lists

- Mutable
- Ordered - can be indexed and sliced
- Allow duplicates
- Heterogenous - mixed types & structures
- 11 associated built-in methods (e.g., len())

Tuples

- Immutable
- Ordered - can be indexed and sliced
- Allow duplicates
- Heterogenous - mixed types & structures
- 2 associated built-in methods (`count()`, `index()`)

Lists vs Tuples

When would we use one vs another?

Lists vs Tuples

Tuples:

- Fixed records (e.g., geographic coordinates)
- Function returns - multiple values
- Faster iteration
- Use as keys in dictionaries

Lists

- In-place sorting
- Building, collecting, or preprocessing data - enables transformations
- Use in data structures in which order matters and elements are removed or added at one end (e.g., queue)