Python Data Structures

ANI_106d | On-Demand | Automation and Insights | Express
Course Duration: 1 hour

This self-paced on-demand course is a light-hearted introduction to Python data structures. Students will delve a little deeper into data structures and become familiar with ways to organize and access data collections in Python.

Intended Audience

Those with some programming experience who are interested in implementing advanced data structures in Python.

Objectives

After completing this course, the learner will be able to:

- Use the dictionary structure to organize information into key value pairs
- Explain the significance of an immutable data type
- Explain the differences between tuples and lists
- Pack and unpack tuples to hold value pairs
- Demonstrate uses for ordered and unordered collections
- Define and perform set operations

Course Prerequisites

No Prerequisites

Outline

1. Lists Overview
1.1 Creating a List

2. Tuples
2.1 Tuples Packing
2.2 Tuples Unpacking
2.3 Nested Tuples
2.4 Working with Tuples
Exercise: Code Challenge

3. Dictionaries
3.1 Looping through Keys, Values, Key-Value Pairs

4. Set Operations
4.1 Union, Intersection, Difference
4.2 Symmetric Difference
4.3 Set Operations Summary
4.4 Working with Set Operations
4.5 Organizing with Set Operations

5. Data Structures Overview

6. Common Characteristics
6.1 Indexed
6.2 Mutable
6.3 Duplicates allowed
6.4 Heterogenous

Final Assessment

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