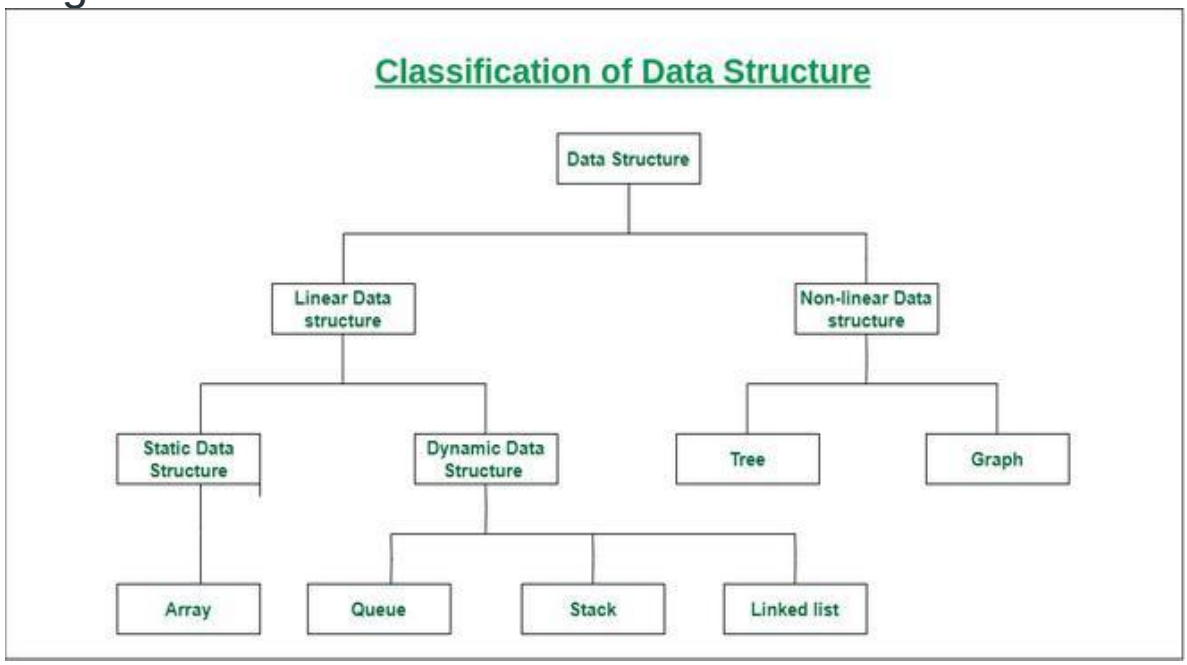
Artificial Intelligence (Machine Learning & Deep Learning) [Course]

Week 1 - Day 3

It is not about Theory, it is 20% Theory and 80% Practical – Technical/Development/Programming [Mostly Python based]

Data Structure

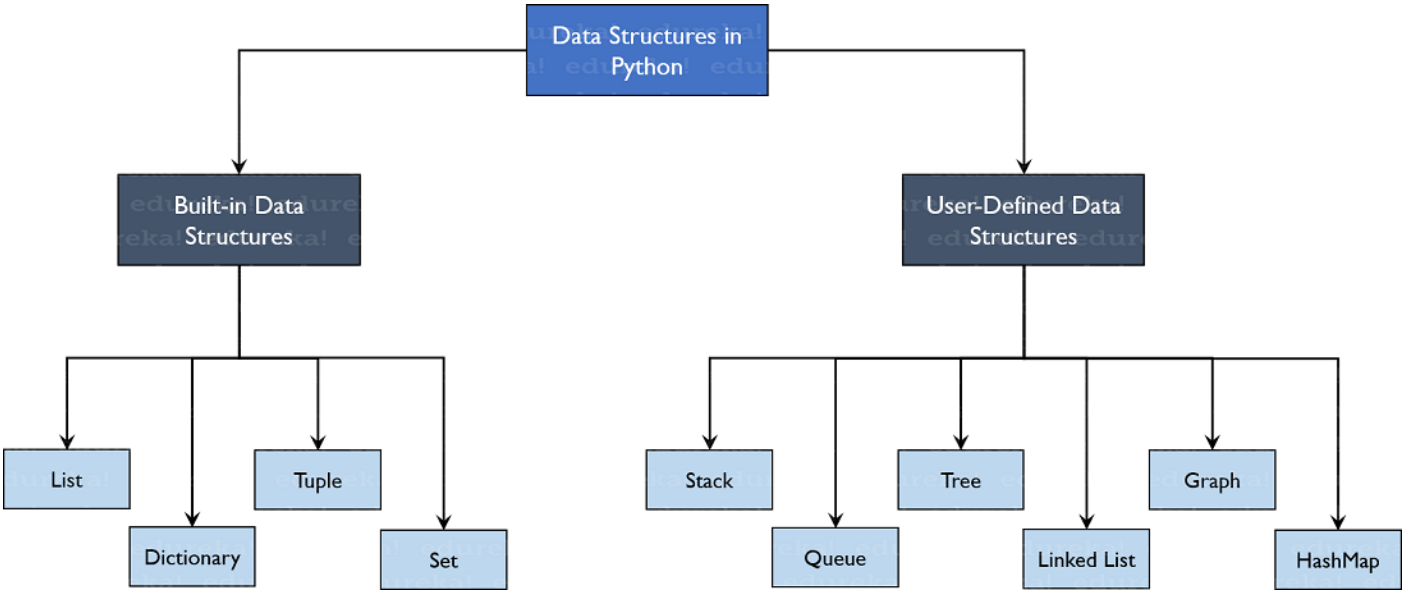
Data structures are the fundamental building blocks of computer programming. They define how data is organized, stored, and manipulated within a program. Understanding data structures is very important for developing efficient and effective algorithms.



References:

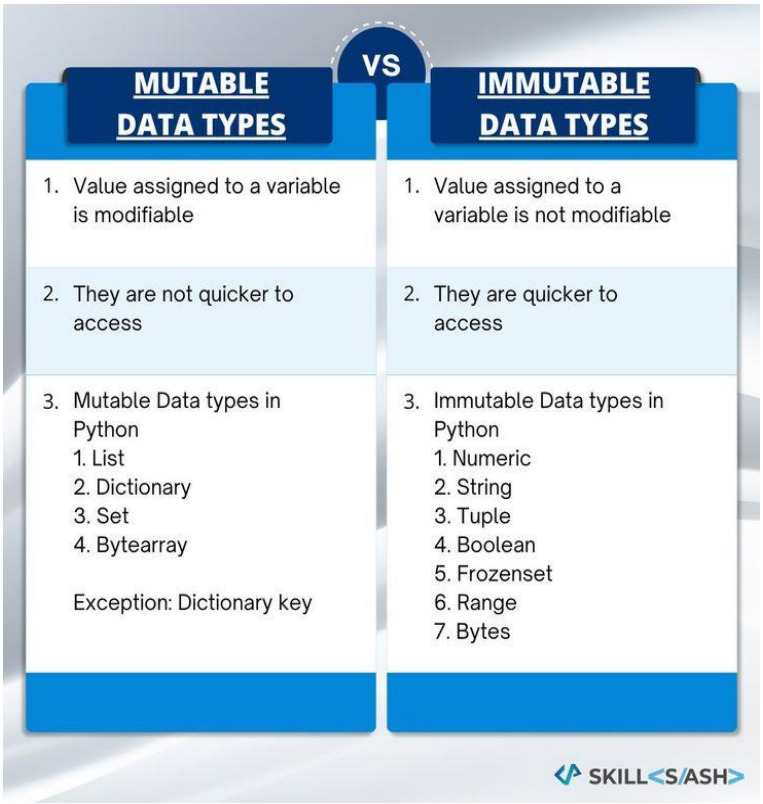
https://www.geeksforgeeks.org/data-structures/
https://www.simplilearn.com/tutorials/data-structure-tutorial/what-is-data-structure

Data Structure in Python



References:
https://www.geeksforgeeks.org/python-data-structures/
https://docs.python.org/3/tutorial/datastructures.html
https://corporatefinanceinstitute.com/resources/data-science/python-data-structures/
https://www.edureka.co/blog/data-structures-in-python/

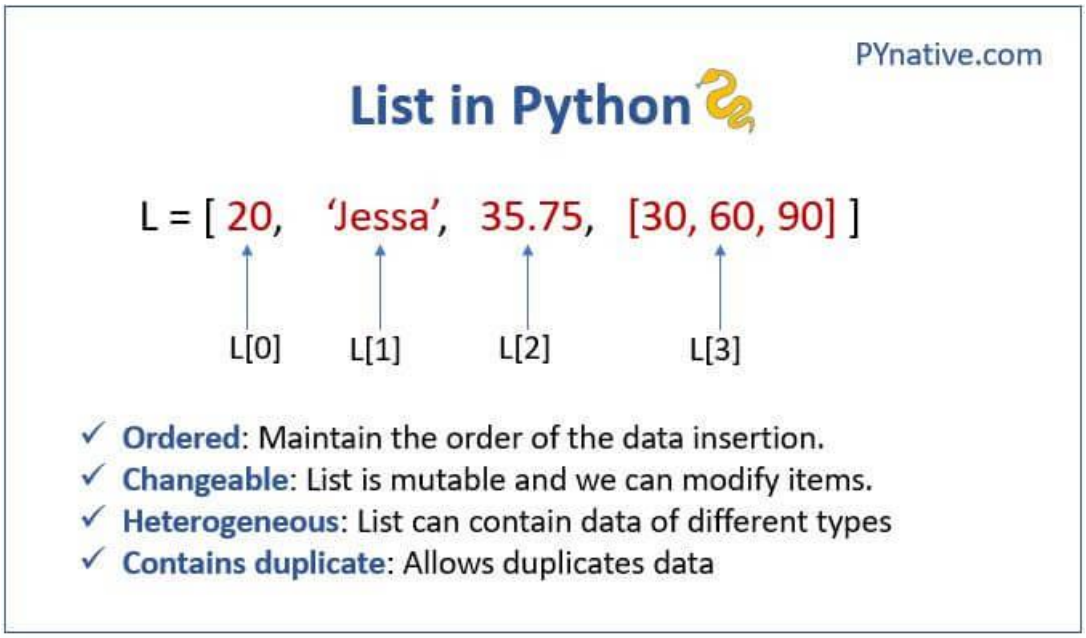
Difference between mutable and immutable



References:

https://www.geeksforgeeks.org/mutable-vs-immutable-objects-in-python/
https://realpython.com/python-mutable-vs-immutable-types/
https://www.shiksha.com/online-courses/articles/difference-between-mutable-and-immutable-in-python/

Python Lists

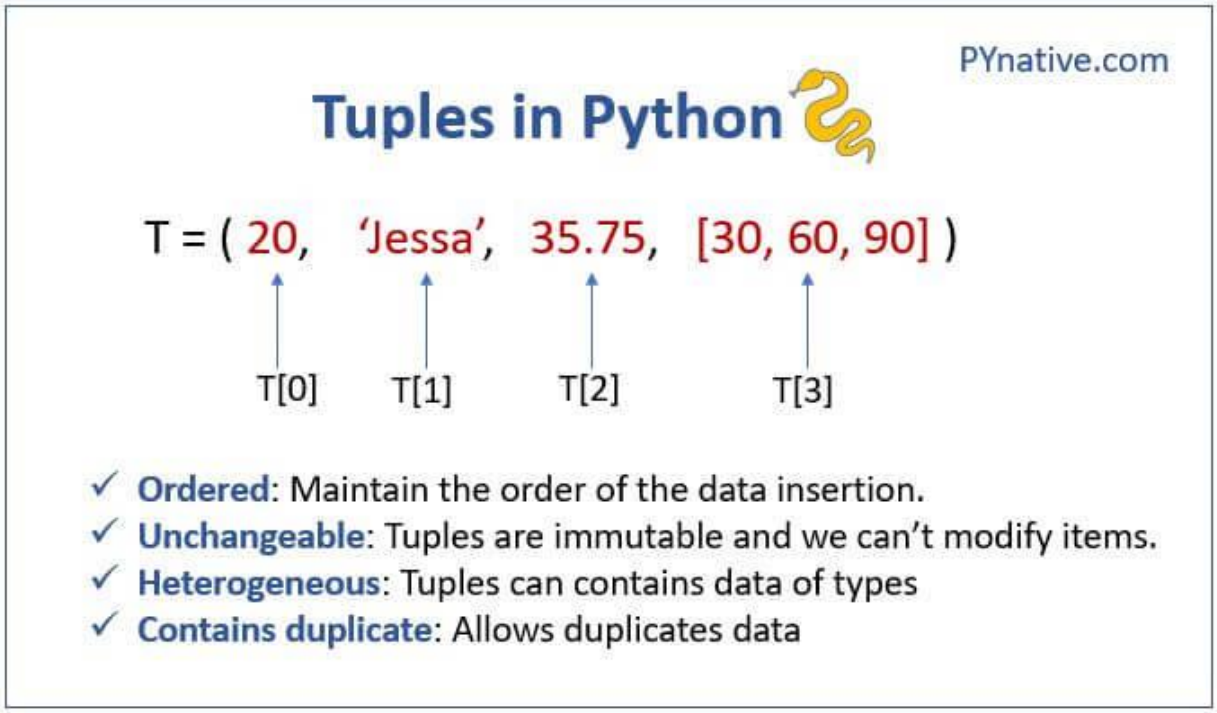


References:

https://www.w3schools.com/python/python_lists.asp
https://www.programiz.com/python-programming/list
https://www.geeksforgeeks.org/python-lists/

Exercises

Python Tuples



References:

https://www.w3schools.com/python/python_tuples.asp
https://www.geeksforgeeks.org/tuples-in-python/
https://www.programiz.com/python-programming/tuple

Exercises

Python Sets

PYnative.com

Set in Python

S = { 20, 'Jessa', 35.75}

- ✓ **Unordered**: Set doesn't maintain the order of the data insertion.
- ✓ **Unchangeable**: Set are immutable and we can't modify items.
- ✓ **Heterogeneous**: Set can contains data of all types
- ✓ **Unique**: Set doesn't allows duplicates items

References:

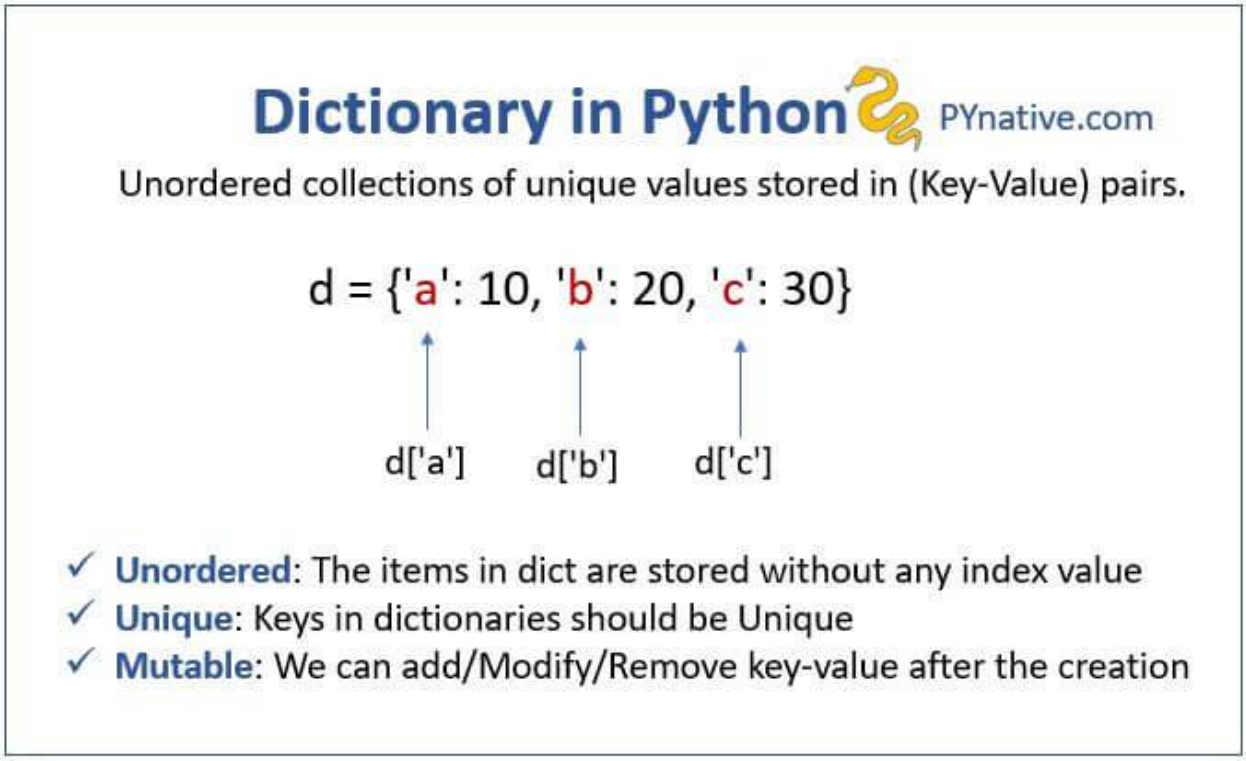
https://www.w3schools.com/python/python_sets.asp

https://www.programiz.com/python-programming/set

https://www.geeksforgeeks.org/sets-in-python/

Exercises

Python Dictionaries



References:

https://www.w3schools.com/python/python_dictionaries.asp
https://www.programiz.com/python-programming/dictionary
https://www.geeksforgeeks.org/python-dictionary/

Thank you - for listening and participating

- ❑**Questions / Queries**
- ❑**Suggestions/Recommendation**
- ❑**Ideas…..?**

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