**Python Basic**

Python Variables

Variables are containers for storing data values.

Global Variables

Variables that are created outside of a function

Example:

x = "awesome"  
  
def myfunc():  
  print("Python is " + x)  
  
myfunc()

Python Data Types

|  |  |
| --- | --- |
| Text Type: | str |
| Numeric Types: | int, float, complex |
| Sequence Types: | list, tuple, range |
| Mapping Type: | dict |
| Set Types: | set, frozenset |
| Boolean Type: | bool |
| Binary Types: | bytes, bytearray, memoryview |
| None Type: | NoneType |

Python Lists

Lists are used to store multiple items in a single variable.

Lists are one of 4 built-in data types in Python used to store collections of data, the other 3 are Tuple, Set, and Dictionary, all with different qualities and usage.

Ordered

When we say that lists are ordered, it means that the items have a defined order, and that order will not change.

Changeable

The list is changeable, meaning that we can change, add, and remove items in a list after it has been created.

Example:

thislist = ["apple", "banana", "cherry"]  
print(thislist)

Python Tuples

Tuple

Tuples are used to store multiple items in a single variable.

Tuple is one of 4 built-in data types in Python used to store collections of data, the other 3 are List, Set, and Dictionary, all with different qualities and usage.

Ordered

When we say that tuples are ordered, it means that the items have a defined order, and that order will not change.

Unchangeable

Tuples are unchangeable, meaning that we cannot change, add or remove items after the tuple has been created.

Example:

thistuple = ("apple", "banana", "cherry")  
print(thistuple)

Python Sets

Set

Sets are used to store multiple items in a single variable.

Set is one of 4 built-in data types in Python used to store collections of data, the other 3 are List, Tuple, and Dictionary, all with different qualities and usage.

Set Items

Set items are unordered, unchangeable, and do not allow duplicate values.

Unordered

Unordered means that the items in a set do not have a defined order.

Set items can appear in a different order every time you use them, and cannot be referred to by index or key.

Unchangeable

Set items are unchangeable, meaning that we cannot change the items after the set has been created.

Example:

thisset = {"apple", "banana", "cherry"}

Python Dictionaries

Example:

thisdict = {  
  "brand": "Ford",  
  "model": "Mustang",  
  "year": 1964  
}

We also studied about python loops, modules, functions and file handling.