**Difference between various data types in python**

**Numbers:** Integers, Float, Complex

**Data types:**

1. **Strings:**

* Strings in python are surrounded by either single quotation marks, or double quotation marks.
* 'hello' is the same as "hello".
* Like many other popular programming languages, strings in Python are arrays of bytes representing unicode characters.
* However, Python does not have a character data type, a single character is simply a string with a length of 1.
* Square brackets can be used to access elements of the string.

1. **List:**

list1 = ["apple", "banana", "cherry"]

list2 = [1, 5, 7, 9, 3]

list3 = [True, False, False]

* Lists are used to store multiple items in a single variable which may or may not be of the same type.
* List is a collection which is ordered and change
* able. Allows duplicate members.
* List can be nested and is mutable.

1. **Tuple:**

mytuple = ("apple", "banana", "cherry")

* Tuple is one of 4 built-in data types in Python used to store collections of data
* A tuple is a collection which is ordered and unchangeable.
* Tuples are written with round brackets.
* Tuple items are ordered, unchangeable, and allow duplicate values.
* Tuple items are indexed, the first item has index [0], the second item has index [1] etc.

1. **Set:**

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

* Sets are used to store multiple items in a single variable.
* A set is a collection which is unordered
* Set is immutable
* Set is unindexed
* Set items do not allow duplicate values.

1. **Dictionary:**

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

* Dictionaries are the dataype in python which consists of multiple key value pairs in a single variable
* Dictionary items are ordered, changeable, and does not allow duplicates.
* Dictionary items can be accessed using key names