**ASSIGNMENT 002 DATE: 28/08/2023**

**TITLE: DIFFERENT DATA TYPES IN PYTHON AND EXAMPLES**

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[**Python Data Types**](https://www.digitalocean.com/community/tutorials/python-data-types#python-data-types)

There are different types of data types in Python. Some built-in Python data types are:

* **Numeric data types**: *int, float, complex*
* **String data types**: *str*
* **Sequence types**: *list, tuple, range*
* **Binary types**: *bytes, bytearray, memoryview*
* **Mapping data type**: *dict*
* **Boolean type**: *bool*
* **Set data types**: *set, frozenset*

[**1. Python Numeric Data Type**](https://www.digitalocean.com/community/tutorials/python-data-types#1-python-numeric-data-type)

Python numeric data type is used to hold numeric values like;

* 1. int - holds signed integers of non-limited length.
  2. long- holds long integers(exists in Python 2.x, deprecated in Python 3.x).
  3. float- holds floating precision numbers and it’s accurate up to 15 decimal places.
  4. complex- holds complex numbers.

In Python, we need not declare a datatype while declaring a variable like C or C++. We can simply just assign values in a variable.

### [2. Python String Data Type](https://www.digitalocean.com/community/tutorials/python-data-types#2-python-string-data-type)

The string is a sequence of characters. Python supports Unicode characters. Generally, strings are represented by either single or double-quotes.

### [3. Python List Data Type](https://www.digitalocean.com/community/tutorials/python-data-types#3-python-list-data-type)

The list is a versatile data type exclusive in Python. In a sense, it is the same as the array in C/C++. But the interesting thing about the list in Python is it can simultaneously hold different types of data. Formally list is an ordered sequence of some data written using square brackets ([]) and commas(,)

### [4. Python Tuple](https://www.digitalocean.com/community/tutorials/python-data-types#4-python-tuple)

The tuple is another data type which is a sequence of data similar to a list. But it is immutable. That means data in a tuple is write-protected. Data in a tuple is written using parenthesis and commas.

### [5. Python Dictionary](https://www.digitalocean.com/community/tutorials/python-data-types#5-python-dictionary)

[Python Dictionary](https://www.digitalocean.com/community/tutorials/python-dictionary) is an unordered sequence of data of key-value pair form. It is similar to the hash table type. Dictionaries are written within curly braces in the form key:value. It is very useful to retrieve data in an optimized way among a large amount of data