**Data Type In Python**

* Every variable in Python has a data type, which defines the type of data it can hold.
* Common data types in Python include:

1. numeric type
2. sequence type
3. booleans
4. mapping type
5. none type
6. others
7. **numeric data:**

* **integers:**

Whole numbers without a decimal point

example

a = 4

type(a)

=int

* **Floats (float):**

Numbers with a decimal point or in exponential form.

Example: 3.14, 2.5e2 (which is equivalent to 250.0)

a = 3.2

type(a)

= float

1. **sequence data**

* **string:**
* Sequences of characters enclosed in single (') or double (") quotes.
* Example:

name= "sheema masood"

type(name)

= str

* **tuple**:
* uses () Ordered, immutable sequence,
* e.g.

T = (1,2,3)

type(T)

=tuple

* **list:**
* Ordered, mutable sequence,
* e.g.

L = [1, 2, 3]

type(L)

list

1. **Mapping Type:**

* dict: Dictionary type, a collection of key-value pairs,
* A dictionary is an unordered collection of key-value pairs, where each key must be unique.
* It is a highly flexible and versatile data structure that allows you to store and retrieve values based on their associated keys.
* eg

my\_bio = {"name":"sheema", "age": 23 , "height" : 5}

#now we can access values using keys

my\_bio["name"]

'sheema'

1. **None Type:**

* A special type representing the absence of a value or a null value, usually denoted as None.
* eg :

a = None

type(a)

= NoneType

1. **Booleans (bool):**

* Represents either True or False.
* Eg

num = 1

num<2

=True

num =1

num >2

=False