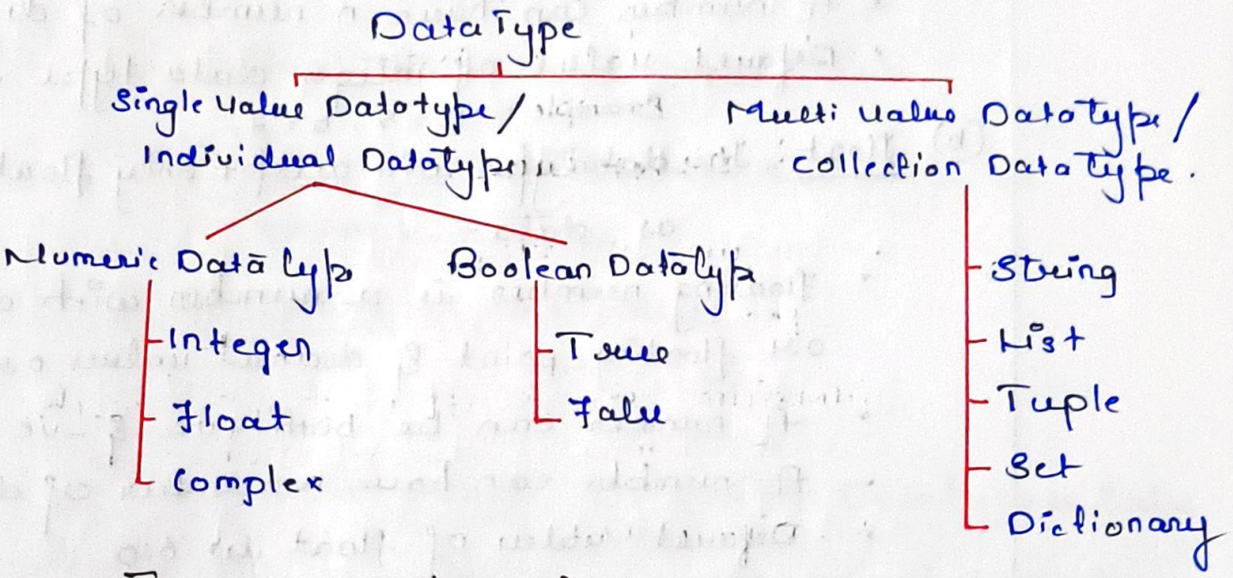
→ **Data Types:**

Data Types is used to findout which type or what kind of data is stored inside the system memory.



There are 2 type of datatype.

Single Value Data type / Individual Datatype
Multi value Data type / Collection data type.

→ **Single Value Data type:**

If a single value is stored inside a single memory block or if a single value is associated with single variable name, then it is called SVDT

There are 2 types of single value Datatype

1. Numeric Single Value Data type
2. Bodean Single value Data type.

1. **Numeric Single Value Data type:**

This Datatype will accept only numbers as data

There are 3 types.

(a) Int
(b) float
(c) Complex.

(a) Integer : This datatype will store only integer number as data

- Integer number is a number without any decimal point or floating point & decimal value or floating value.
- A number can be both +ve & -ve.
- A number can have n number of digits
- Default value of integer data type is 0.

Example: a = 5, b = 3

(b) float : This datatype will accept only floating number as data

- Floating number is a number with decimal point or floating point & decimal values or floating value
- A number can be both +ve & -ve.
- A number can have n number of digits.
- Default value of float is 0.0

Example : d = 5.25 f = 3.56.

(c) Complex : This datatype will store only complex number as data.

- Complex number is a combination of real part & imaginary part.
- The real part may have int / float number
- The imaginary part have 'j' means $\sqrt{-1}$
- The format to write complex data type is A+Bj, we can't change the format into A+jB, because jB will be considered as identifier & will throw an error message.

Example : 2+j5 ; Name 'j5' is not defined.

- If a number is having only the imaginary part then also it is considered as complex number

a = 12j.

- Default value is 0j.