

# Day2\_Tokens

Executable Tokens: The components that contribute towards providing the output

1. Keyword : A keyword is word that has a predefined meaning and is used for a purpose.

When used in the program it performs the activity assigned to it.

Ex: if, else..

2. White-Space character : A space, a new line or even a tab space comes under a white space character. In python we have a special space called indentation which is used in block level programming

```
{
  x
}
```

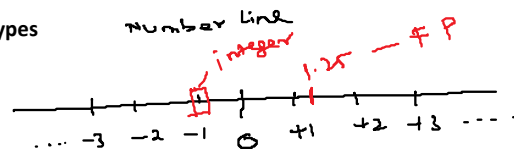
3. Literals or constant: These are the data elements that are provided to the program. These are the fixed values in the program

In python we have 4 kinds of Literals

- Numeric Literals
- Character based Literals
- Boolean Literals
- None Literal

Numeric Literals : These literals represent the numbers. These are further classified in to 3 types

- Integer Literals
- Float-Point Literals
- Complex Literals



-Integer Literals : 1. The numeric literals that represent the countable quantity

Ex: How many students are there in a class - 10 Members

2. The integer literals form a single part i.e., Integer Part



3. Generally integers are 4 types

- Decimal Integers --> 0-9 --> The combination of numbers within 0-9  
49<sub>(10)</sub>
- Binary Integers --> 0-1 --> The combination of numbers within 0-1  
b110001<sub>(2)</sub>
- Octal Integers --> 0-7 --> The combination of numbers within 0-7  
061<sub>(8)</sub>
- Hexadecimal Integers--> The combination of numbers within 0-9,10-A,11-B,12-C,13-D,14-E,15-F  
0X31<sub>(16)</sub>

49<sub>(10)</sub> = 110001<sub>(2)</sub>

49 / 2 = 24 - 1  
24 / 2 = 12 - 0  
12 / 2 = 6 - 0  
6 / 2 = 3 - 0  
3 / 2 = 1 - 1  
1 / 2 = 0 - 1

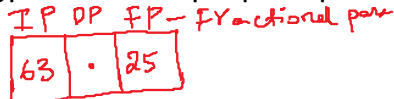
49 / 8 = 6 - 1  
6 / 8 = 0 - 6  
0 / 8 = 0 - 0

49 / 16 = 3 - 1  
3 / 16 = 0 - 3  
0 / 16 = 0 - 0

Float-Point Literals : 1. These literals represent the measurable quantity.

Ex: What is the weight of Person X : 63.25 pounds

2. The floating point literal can be put up into 3 parts



$$1 + (1/4)$$

$$1.25$$

63.25 = 63 1/4

63.25 = 63 + 0.25

1 / 4 = 0.25

Complex Literals : 1. The literal that are formed by 2 parts i.e., real part and the imaginary part

Ex: 3-2j

- 3 --> Real part, 2 --> Imaginary Part

- Boolean Literals** : The flag based literals represented by True and False
- None Literal** : None means nothing, A None literal represents the null quantity