**Python Literals**

Literals can be defined as a data that is given in a variable or constant.

Python support the following literals:

**I. String literals:**

String literals can be formed by enclosing a text in the quotes. We can use both single as well as double quotes for a String.

**Eg:**

"Aman" , '12345'

**Types of Strings:**

There are two types of Strings supported in Python:

a).Single line String- Strings that are terminated within a single line are known as Single line Strings.

**Eg:**

1. >>> text1='hello'

b).Multi line String- A piece of text that is spread along multiple lines is known as Multiple line String.

There are two ways to create Multiline Strings:

**1). Adding black slash at the end of each line.**

**Eg:**

1. >>> text1='hello\
2. user'
3. >>> text1
4. 'hellouser'
5. >>>

**2).Using triple quotation marks:-**

**Eg:**

1. >>> str2='''''welcome
2. to
3. SSSIT'''
4. >>> print str2
5. welcome
6. to
7. SSSIT
8. >>>

**II.Numeric literals:**

Numeric Literals are immutable. Numeric literals can belong to following four different numerical types.

|  |  |  |  |
| --- | --- | --- | --- |
| **Int(signed integers)** | **Long(long integers)** | **float(floating point)** | **Complex(complex)** |
| Numbers( can be both positive and negative) with no fractional part.eg: 100 | Integers of unlimited size followed by lowercase or uppercase L eg: 87032845L | Real numbers with both integer and fractional part eg: -26.2 | In the form of a+bj where a forms the real part and b forms the imaginary part of complex number. eg: 3.14j |

**III. Boolean literals:**

A Boolean literal can have any of the two values: True or False.

**IV. Special literals.**

Python contains one special literal i.e., None.

None is used to specify to that field that is not created. It is also used for end of lists in Python.

Eg:

1. >>> val1=10
2. >>> val2=None
3. >>> val1
4. 10
5. >>> val2
6. >>> print val2
7. None
8. >>>

**V.Literal Collections.**

Collections such as tuples, lists and Dictionary are used in Python.

**List:**

* List contain items of different data types. Lists are mutable i.e., modifiable.
* The values stored in List are separated by commas(,) and enclosed within a square brackets([]). We can store different type of data in a List.
* Value stored in a List can be retrieved using the slice operator([] and [:]).
* The plus sign (+) is the list concatenation and asterisk(\*) is the repetition operator.

**Eg:**

1. >>> list=['aman',678,20.4,'saurav']
2. >>> list1=[456,'rahul']
3. >>> list
4. ['aman', 678, 20.4, 'saurav']
5. >>> list[1:3]
6. [678, 20.4]
7. >>> list+list1
8. ['aman', 678, 20.4, 'saurav', 456, 'rahul']
9. >>> list1\*2
10. [456, 'rahul', 456, 'rahul']
11. >>>