Python

**Strings are immutable i.e., it cannot be changed**

**Lists are mutable []**

**Tuple is immutable ()**

**set {}**

indexing starts from 0

---> Slicing:

a = 'raghuvarma'

a [0: 5] #include 0 and exclude 5 th postion element

result: 'raghu'

a [ :4]

result: 'ragh'

a [5:]

result: 'varma'

---> "LISTS”: (mutable)

the elements are separated by commas, usually same data types, might be of diff data types

squares = [1, 4, 9, 16, 25]

squares [0] = 1;

squares [4] = 52;

squares =

[1, 4, 9, 16, 52]

\*To add element to the list -> squares. Append ()

---> >>> a = ['a', 'b', 'c']

>>> n = [1, 2, 3]

>>> x = [a, n]

>>> x

[['a', 'b', 'c'], [1, 2, 3]]

>>> x [0]

['a', 'b', 'c']

>>> x [0][1]

'b'

--> ‘elif’ is short for ‘else if’

**FILTER MAP AND REDUCE**

nums = [1,3,6,7,4,3,5,7,7]

* to filter ----------**list (filter (function, nums))** // function might be lamda
* to map - multiply, double---------------**list (map (function, nums))**
* to reduce-----------from functools import reduce

**Reduce (function, nums)**

**Decorators:**

Decorators are the functions which are used to add additional functionality to the functions without edit them.

Types of Methods:

* Instance method – when used the instance variable(self)
* Class method - when used the class variable(cls)-------@classmethod
* Static method - static content-------@staticmethod