

# Lists, tuples, sets and dictionary Points to Remember

- ❑ Python programming language has four collections of data types such as List, Tuple, Set and Dictionary.
- ❑ A list is known as a “sequence data type”. Each value of a list is called as element.
- ❑ The elements of list should be specified within square brackets.
- ❑ Each element has a unique value called index number begins with zero.
- ❑ Python allows positive and negative values as index.
- ❑ Loops are used access all elements from a list.
- ❑ The “for” loop is a suitable loop to access all the elements one by one.
- ❑ The `append ( )`, `extend ( )` and `insert ( )` functions are used to include more elements in a List.
- ❑ The `del`, `remove ( )` and `pop ( )` are used to delete elements from a list.
- ❑ The `range ( )` function is used to generate a series of values.
- ❑ Tuples consists of a number of values separated by comma and enclosed within parentheses.
- ❑ Iterating tuples is faster than list.

- ❏ The tuple ( ) function is also used to create Tuples from a list.
- ❏ Creating a Tuple with one element is called “Singleton” tuple.
- ❏ A Set is a mutable and an unordered collection of elements without duplicates.
- ❏ A set is created by placing all the elements separated by comma within a pair of curly brackets.
- ❏ A dictionary is a mixed collection of elements.
- ❏ List is an ordered set of elements. But, a dictionary is a data structure that is used for matching one element (Key) with another (Value).
- ❏ The index values can be used to access a particular element. But, in dictionary key represents index. Remember that, key may be a number or a string.
- ❏ Lists are used to look up a value whereas a dictionary is used to take one value and look up another value.