



Learning Objectives

After studying this chapter, students will be able to:

- Understand the basic concepts of various collection data types in python such as List, Tuples, sets and Dictionary.
- Work with List, Tuples, sets and Dictionaries using variety of functions.
- Writing Python programs using List, Tuples, sets and Dictionaries.
- Understand the relationship between List, Tuples and Dictionaries.

9.1 Introduction to List

Python programming language has four collections of data types such as List, Tuples, Set and Dictionary. A list in Python is known as a “**sequence data type**” like strings. It is an ordered collection of values enclosed within square brackets []. Each value of a list is called as element. It can be of any type such as numbers, characters, strings and even the nested lists as well. The elements can be modified or mutable which means the elements can be replaced, added or removed. Every element rests at some position in the list. The position of an element is indexed with numbers beginning with zero which is used to locate and access a particular element. Thus, lists are similar to arrays, what you learnt in XI std.

9.1.1 Create a List in Python

In python, a list is simply created by using square bracket. The elements of list should be specified within square brackets. The following syntax explains the creation of list.

Syntax:

Variable = [element-1, element-2, element-3 element-n]