



Unit III

CHAPTER 10

PYTHON CLASSES AND OBJECTS



Learning Objectives

After the completion of this chapter, the student is able to

- Understand the fundamental concepts of Object Oriented Programming like: Classes, Objects, Constructor and Destructor.
- Gain the knowledge of creating classes and objects in Python.
- Create classes with Constructors.
- Write complex programs in Python using classes.

10.1 Introduction

Python is an Object Oriented Programming language. Classes and Objects are the key features of Object Oriented Programming. Theoretical concepts of classes and objects are very similar to that of C++. But, creation and implementation of classes and objects is very simple in Python compared to C++.

Class is the main building block in Python. Object is a collection of data and function that act on those data. Class is a template for the object. According to the concept of Object Oriented Programming, objects are also called as instances of a class. In Python, everything is an object. For example, all integer variables that we use in our program is an object of class int. Similarly all string variables are also object of class string.

10.2 Defining classes

In Python, a class is defined by using the keyword class. Every class has a unique name followed by a colon (:).

Syntax:

```
class class_name:
    statement_1
    statement_2
    .....
    .....
    statement_n
```