# What Is Object-Oriented Programming?

Object-Oriented Programming(OOP), is all about creating “objects”.

## Class in Python :

A class is a collection of objects. Unlike the primitive data structures, classes are data structures that the user defines. They make the code more manageable.

## Objects in Python :

When we define a class only the description or a blueprint of the object is created. There is no memory allocation until we create its **object**. The **objector instance** contains real data or information.

## Inheritance in Python :

Inheritance is the procedure in which one class inherits the attributes and methods of another class. The class whose properties and methods are inherited is known as Parent class. And the class that inherits the properties from the parent class is the Child class.

## Encapsulation in Python :

is a way to ensure security. Basically, it hides the data from the access of outsiders. Such as if an organization wants to protect an object/information from unwanted access by clients or any unauthorized person then encapsulation is the way to ensure this.

## Polymorphism in Python :

. If we break the term Polymorphism, we get “poly”-many and “morph”-forms. So Polymorphism means having many forms. In OOP it refers to the functions having the same names but carrying different functionalities.

## Data abstraction in Python :

We use Abstraction for hiding the internal details or implementations of a function and showing its functionalities only.