**WHAT IS OOP?**

OOP is a programming paradigm based on the concept of objects and data. In OOP, every entity is treated as an object.

**WHAT ARE CLASSES?**

A class can be defined as an object’s blueprint, description or definition. We can use the same class as a blueprint for creating multiple different objects. A class consists of variables and methods. A class definition should start with the `__init__` method.

**INHERITANCE**

The mechanism of deriving a new class from an old one is called inheritance. The old class is called super class and the new one is called sub class.

**POLYMORPHISM**

Polymorphism is the property by which objects belonging to different classes are able to respond to the same message, but in different ways.

**ENCAPSULATION**

Encapsulation is used to restrict access to methods and variables. The code and data are enclosed within a single unit, just like a capsule, from being modified by external agents.