# Object Oriented Programming

* It is a methodology we use to design our programs just using classes and objects.
* It makes it easier to develop and maintain your project as it gets bigger.

## Object

* It is any entity that has a state and behavior

## Class

* Template that are used to create objects and define the object data types and methods
* They are a blueprint from which you can create multiple objects from

# Inheritance

* It is just a mechanism in which a class can acquire all the properties and methods of another class.

# Polymorphism

* The ability of an object to take on many forms
* It allows you to substitute different implementation/behaviors for different needs
* It can also be used to add more functionality to pre-existing code

## Method Overriding

* When a derived/child class changes the implementation details of a method from the base/parent class

## Method Overloading

* When there is multiple method but with different parameters and most of the time, different implementation/behavior details