**-OOPS**

Everything in python is an object.

Uses:

1. Modularity for easier troubleshooting

## Reuse of code through inheritance

## Flexibility through polymorphism

## Effective problem solving

## In the below from the class we have instantiated(created) the 3 objects

**instantiated**

objects

We should mention \_\_Init\_\_ method in everyclass and create the variables under self

objects

objects

CLASS

**=>Note: Class and static methods – Need to explore**

**4 pillars of oops**

**Encapsulation:**  It describes the idea of bundling data and methods that work on that data within one unit, e.g., a class in Java. This concept is also often used to hide the internal representation, or state, of an object from the outsid**e.**

**Abstraction:** It is the method use to hide the implementation details from the user only the functionality will be provided to the user.

\*)To assign a private variable or use a variable as private then we can use \_variable name.(we need to use **underscore** for the variable starting)

**Inheritance:** using the other class A functionality in class B function

**isinstance**- It is an inbuilt function in python

usage: isinstance(instance,class)

instance – name of the created object or instantiated object

class – name of the class which it the instance has been created

object – we can use object also in the place of class

the output of the above builtin function will be true or false or Boolean value.

**Polymorphism:**

Calling the same methods in different forms with different functionality