

OOPS in Python:

Object:

An object is an instance of a class, which represents real-world entities such as a person, a car, a bank account, etc. Everything in Python is an object, including data types such as numbers, strings, and lists.

```
x = 10 # 10 is an object of int class
y = "hello" # "hello" is an object of str class
z = [1,2,3] # [1,2,3] is an object of list class
```

Class:

A class is a blueprint for creating objects, allowing you to define the attributes and behaviors of objects of a particular type.

```
class Car:
    def __init__(self, make, model, year):
        self.make = make
        self.model = model
        self.year = year
```

Method:

A method is a function that is associated with an object and can be called on that object.

```
class Car:
    def __init__(self, make, model, year):
        self.make = make
        self.model = model
        self.year = year
    def get_info(self):
        return f"{self.make} {self.model} ({self.year})"
```

Constructor:

The `__init__` method is a special method that is called when an object is created from a class and is used to initialize the attributes of the object. It is also called a constructor.

```
class Car:
    def __init__(self, make, model, year):
        self.make = make
        self.model = model
        self.year = year

car = Car("Toyota", "Camry", 2020)
print(car.make) # Output: Toyota
print(car.model) # Output: Camry
print(car.year) # Output: 2020
```