Object Oriented Programming (OPP)

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Paradigma OOP

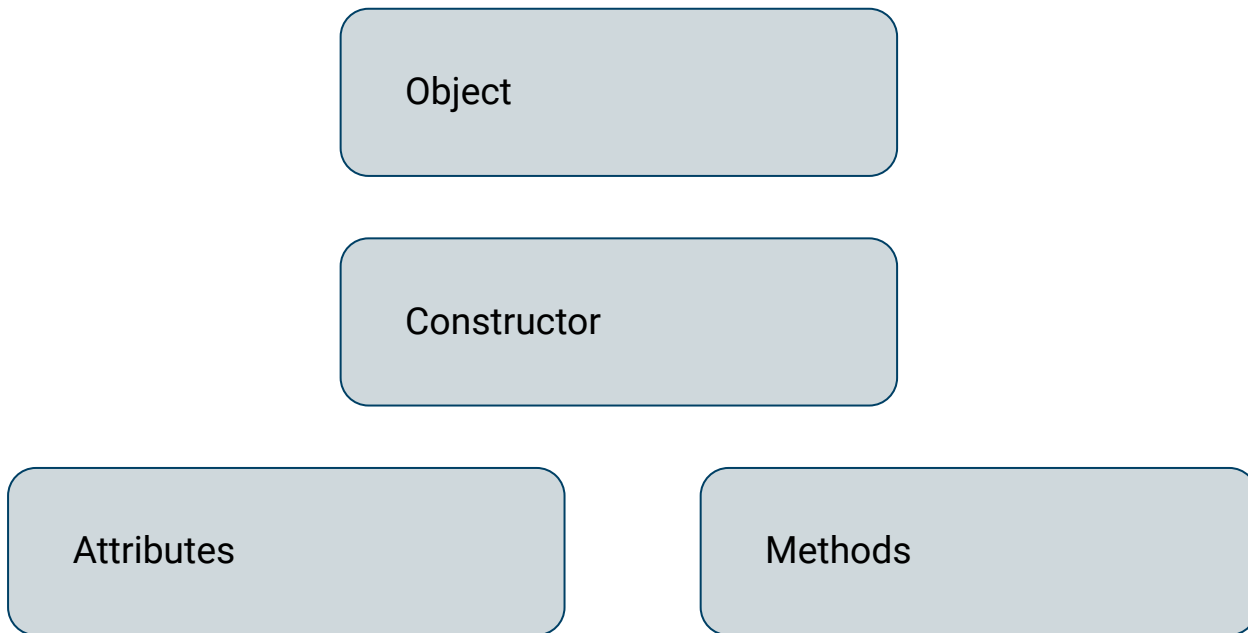- Python permite programar orientado a funciones y orientado a objetos.

OOP Paradigm

- Estructura General

Object

Constructor

Attributes

Methods

Example (Constructor and Atributtes):

```python
class Student:
    def __init__(self, name, major, id):
        self.name = name
        self.major = major
        self.id = id
```

Constructor, with attributes

- Constructor Runs Automatically when the object is created
- self, indicates the object itself

Example (Methods, Getters, and Setters):

```python
class Student:
    def __init__(self, name, major, id):
        self.name = name
        self.major = major
        self.id = id

    def get_major(self):
        return self.major

    def set_major(self, new_major):
        self.major = new_major
```

- Methods: Getters and Setters
-The constructor is a method

Example (Instances):

```
Maria = Student("Maria", "Filosofia", "1234")

Maria.get_major()
```
Instance 1

```
'Filosofia'
```

```
Dario = Student("Dario", "Administracion", "3456")

Dario.set_major("Literatura")
Dario.get_major()
```
Instance 2

```
'Literatura'
```

Paradigma OOP

- Instances of the class Androide