

# Python Programming

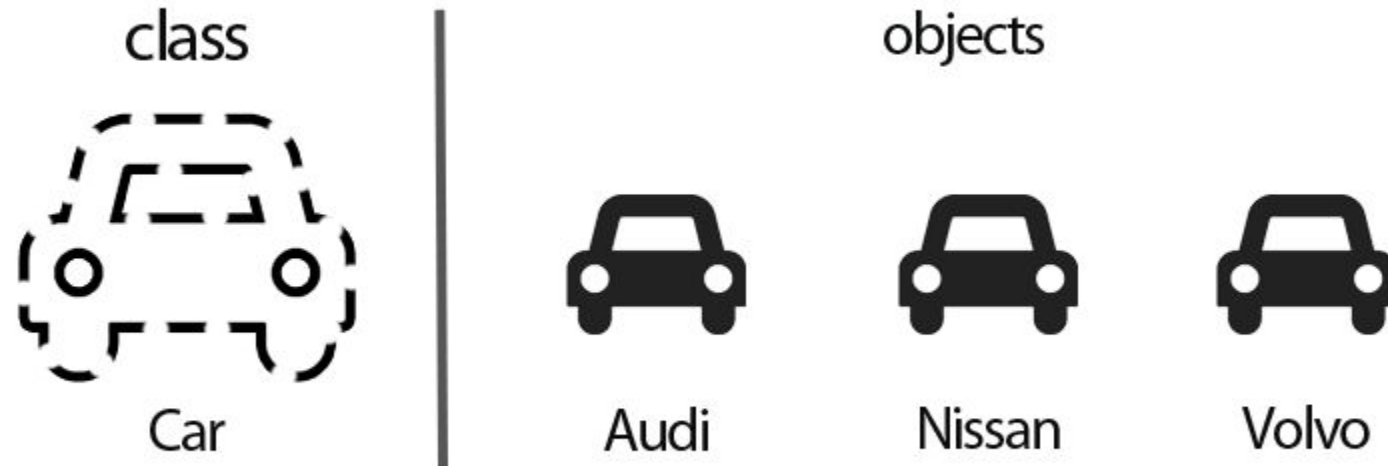
Cursul 3

28 iunie 2019

# Object Oriented Programming

- Tehnica de programare
- Simplifica intelegerea
- Programul devine o colectie de obiecte
- Obiectele pot comunica intre ele prin agregare sau mostenire (ex. Un penar *are* mai multe rechizite; Omul *este* un mamifer)

# OOP



Sursa: <https://javatutorial.net/java-oop>

# Let's build!



Pokemon
<b>Name:</b> Pikachu
<b>Type:</b> Electric
<b>Health:</b> 70
<code>attack()</code>
<code>dodge()</code>
<code>evolve()</code>

Fields

Methods

# Class

```
9  class Student:
10
11      species = 'human'
12
13      def __init__(self, name, age = 100):
14          self.name = name
15          self.age = age
16          self.species = 'robot'
17          self.is_tired = True
```

`__init__(self)` = Constructorul clasei

# OOP Principles

- Abstractizarea
- Incapsularea
- Polimorfismul
- Mostenirea

# Keywords

- `clasa`
- `object` (instanta)
- `atribute` (clasa vs instanta)
- `constructor` (`__init__`)
- `__str__` vs `__repr__`
- `metode`
- `agregare`
- `mostenire`
- `clasa parinte` vs `clasa copil`
- `suprascriere`



# Întrebări?