



CLASS

Also known as object



CLASSES (OBJECTS)

- »» Welcome to 1980s of programming!
- »» Object-oriented programming (OOP) is it's own course, so we won't cover it deeply in this introductory course
- »» **Class** is a template (or a model) from which objects are created
- »» **Object** is an instance of a class
- »» Car is a class, but Fiat or Audi are instances of a Car (they are still cars, but have their distinctive features)
- »» Human is a class, Janne is an instance of a Human



INSTANCE?

- »» In object-oriented programming, an instance is the one-of-a-kind version of a **class**
- »» Each object can have its unique variable values. These instance variables are often called **attributes** or *fields*
- »» **Example**
 - »» Car is a **class**. The car class has **attributes** *brand, model, color* and *year*
 - »» A grey Skoda Octavia 2012 is an **instance** of this car class
 - »» A red Tesla Model S 2019 is also an **instance** of this car class

OBJECT-OBJECT ORIENTED PROGRAMMING

- » Python is an objected-oriented programming language.
- » **Everything** in python is an **object**.
- » Each object belongs to a **class**.

```
type(5)
<class 'int'>
type("hello")
<class 'str'>
type(print)
<class 'builtin_function_or_method'>
```