

Object Oriented Programming

Introduction

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What is OOP ?

What is Object Oriented Programming?

Computer programming paradigm

- A pattern/model for programming, a way of thinking
- In OOP: **Everything is an object**
- Useful for large program, actively updated, shared

Objects

- Programmer defined types
- Extends language's types (e.g., integer, strings, boolean)
- New types has a name: a **class**
- Classes have attributes (fields) and functions (methods)

Python

- Python has a support for OOP
- Other OOP languages: Java, PhP, C++, ...

Resources

- Learn Python: “Think Python” book
- (<https://greenteapress.com/thinkpython2/thinkpython2.pdf>)
- Chapter 15+ for OOP

An example

Let's represent an object for **cat**

- The class "Cat"
 - to represent all the cats
 - an instance: a cat
- Attributes
 - age (integer)
 - weight (float)
 - name (string)
 - ...
- Functions
 - eat()
 - scream()



https://jolanphilippe.github.io/course/docs/24-oop/oop_2_classes.pdf