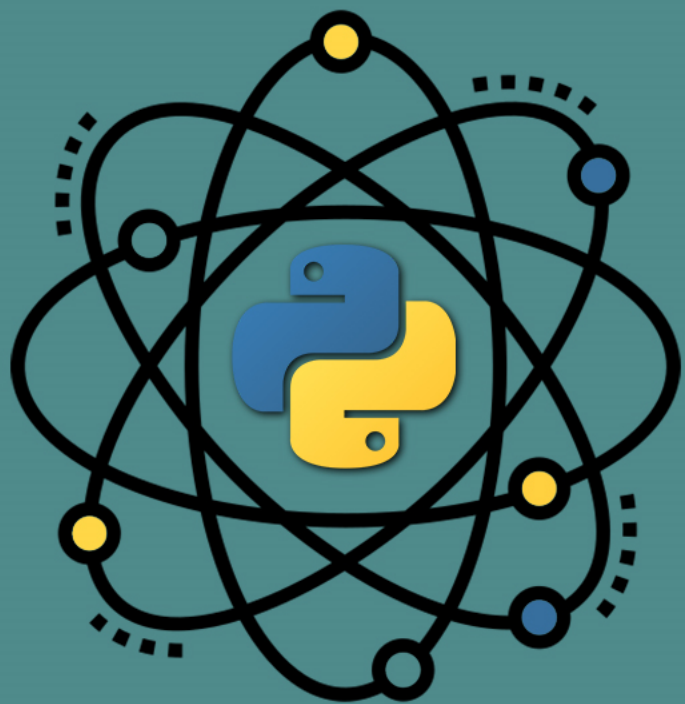


MOHAMMAD DEHGHANI PYTHON FOR DATA SCIENCE

زبان پایتون در علم داده

مدرس: محمد دهقانی



جلسه: یازدهم موضوع: برنامه نویسی شی گرا

زبان پایتون در علم داده

مدرس:
محمد دهقانی

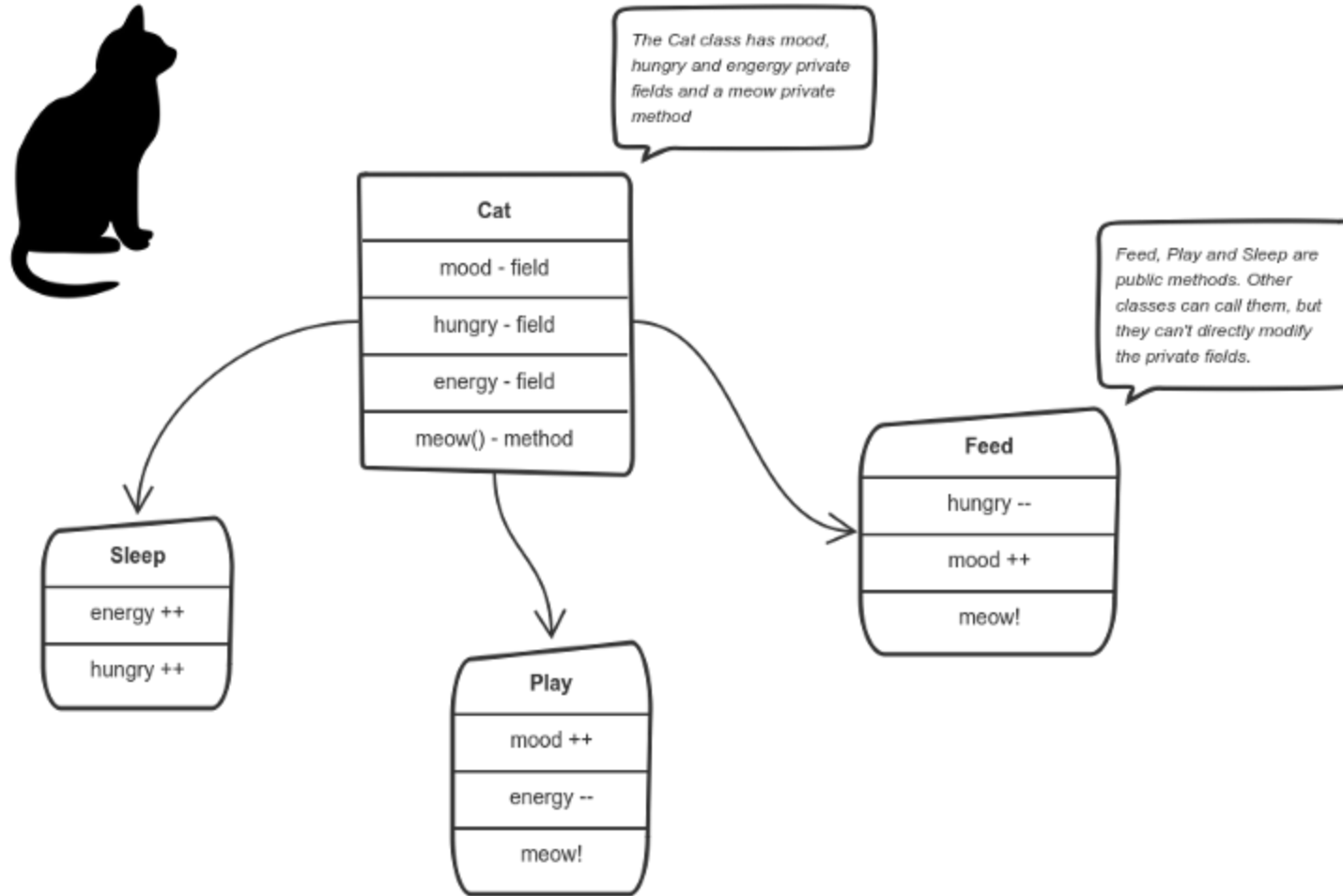
مواردی که در این جلسه بررسی می شوند:

- معرفی کلاس و شی
- بررسی تفاوت کلاس و شی
- تعریف ویژگی (Attribute)
- تعریف متد (Method)
- آموزش مفهوم self
- Class Attributes vs. Instance Attributes
- keywordها
- وراثت (inheritance)
- چند ریختی (Polymorphism)

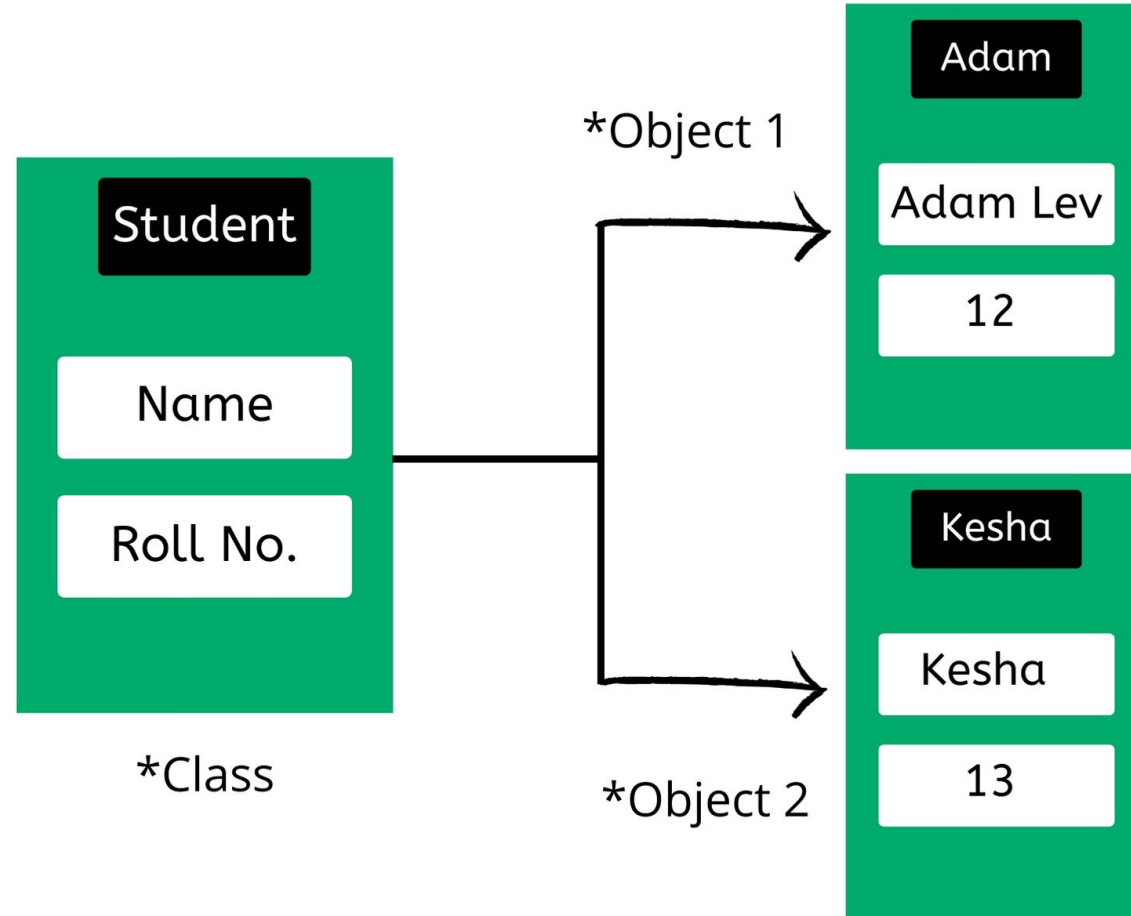
00

- Python is an object-oriented language. This means it focuses on objects instead of procedures. An object can model the real world.
- A class is a blueprint for objects- one class for any number of objects of that type. You can also call it an abstract data type. It contains no values itself, but it is like a prototype for objects.

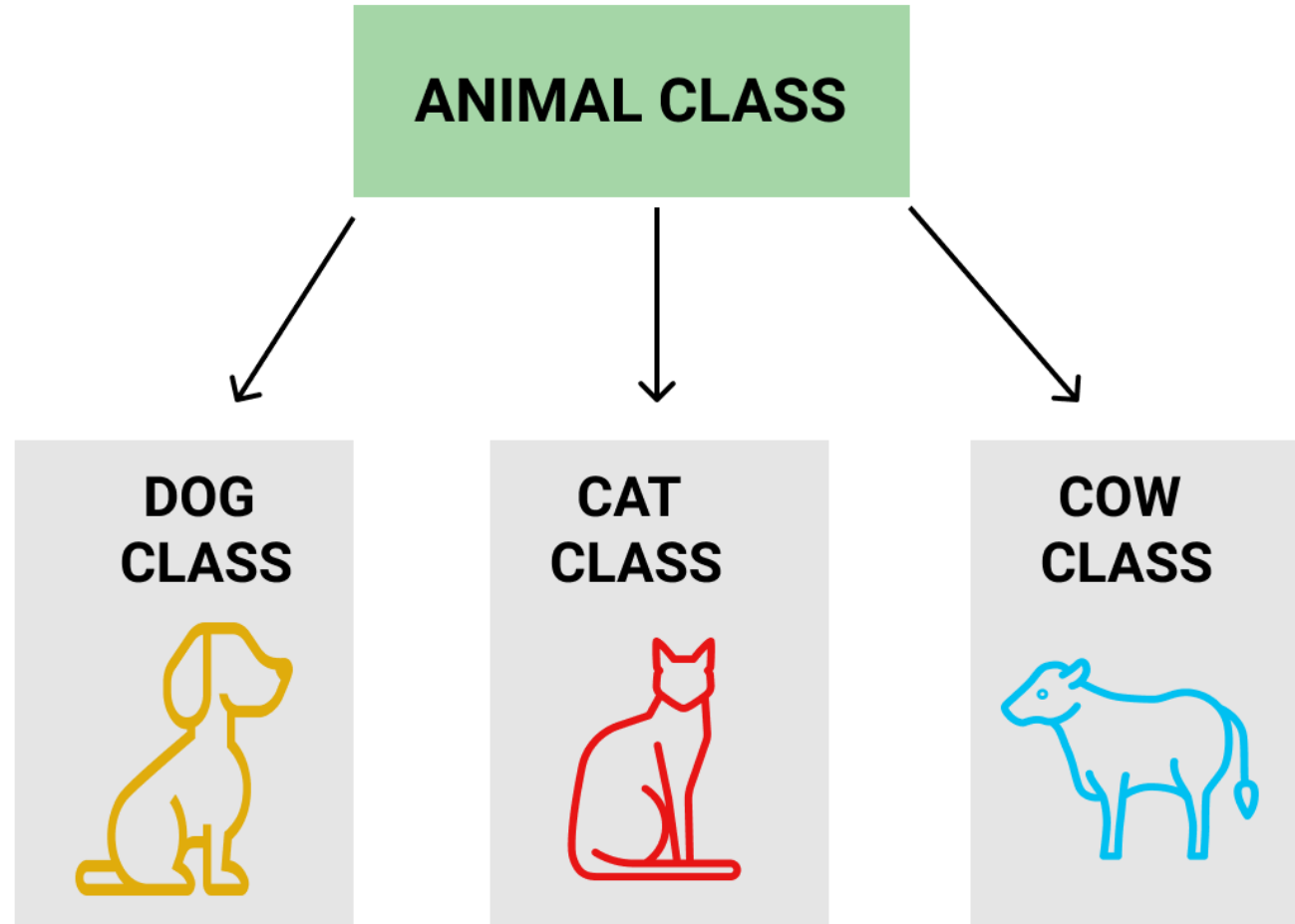




A Python object is an instance of a class. It can have properties and behavior.

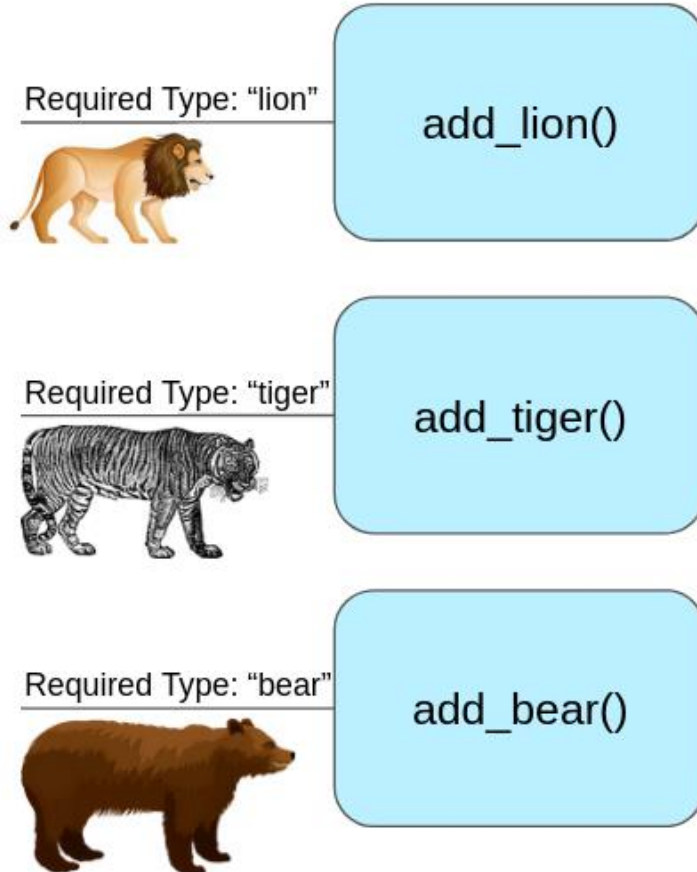


Inheritance

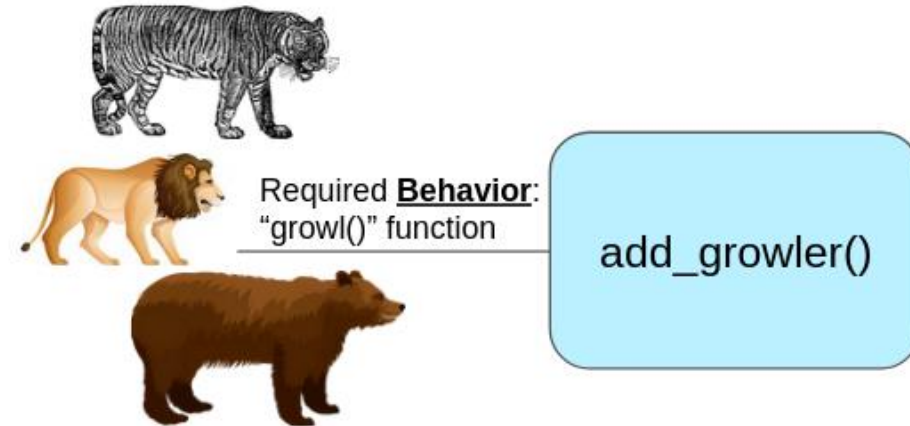


Polymorphism

Without Polymorphism



With Polymorphism



`__init__()`

As you can see, the `__init__()` method is equivalent to a constructor in C++ or Java. It gets called every time we create an object of the class.

Python Magic Methods:

Such a method is identified by double underscores before and after its name.