

Python Programming

Property Class 1

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Teaching, Training and Coaching since more than a decade!

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Our infrastructure class!

```
2 class Person:
3     def __init__(self, full_name):
4         # for simplicity: 2 words space separated
5         # e.g. Mostafa Ibrahim
6         self.full_name = full_name.lower()
7
8     # After some time, many teams used our class!
9     def f1():
10         person = Person('Mostafa Saad')
11         print(person.full_name)
12         person.full_name = 'Mostafa Ibrahim'
13
14     def f2():
15         person = Person('Ziad Mostafa')
16         print(person.full_name)
17
```

Incompatibility

```
class Person:
    def __init__(self, full_name):
        self.first_name, self.last_name = full_name.lower().split()

# After some time, We found it is a wrong design
# more flexible, we has explicit first name and last name
# we can use same arguments for init, but the attribute is gone!

# Now all of the hundreds of dependency fail!
def f1():
    # AttributeError: No full_name'
    person = Person('Mostafa Saad')
    print(person.full_name)
```

The property class

- It allows us to provide an attribute to the outsiders, although it doesn't exist
- 1) Provide a getter method (accessor)
 - A function that return a value of the target attribute
- 2) Provide a setter method (mutator)
 - It takes a value and set it
- 3) Create a property object
 - Give it one or both of these 2 methods
- Code is better :)

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”