

# OOP PYTHON coding style

## for the BGCE Project 2015

Benjamin R  th

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In this we are going to collect coding style guidelines for our project

### 1 General Style

- follow PyCharm style (PEP8)
- See: <https://www.python.org/dev/peps/pep-0008/>
- use meaningful names in any case! No abbreviations without a comment

### 2 Functions and Variables

- Variablenames: `my_variable`
- variable and function name start with small letter: `void my_func()`, `my_data_type my_variable`
- class name starts with bigletter in Camelcase: `class MyClass`

### 3 Object oriented programming

- there is no way for defining private variables in python! the following convention is applied:
  - variables starting with `__` (e.g. `__my_member`) should not be touched from outside
  - for variable modification and access add appropriate getters and setters
  - from my personal experience and fails: `_` seems to me to mean something like protected and `__` derived. Also to the interpreter! This means, if you want to access variables from a base class via a derived class you have to be careful. See the following example:

```
class base(object):
    def __init__(self):
        self._foo = 1

class derived(base):
    def __init__(self):
        base.__init__(self)
        self._bar = 2
    def print_foo(self):
        print self._foo

a = derived()
a.print_foo()
```

This doesn't work, if `_foo` has two leading `_` instead of one (`__foo`)!

– see this post for additional information