

Week 3 Review (OOP)

OOP Example

```
# create a class
class ClassName:

    # initialize
    def __init__(self, attribute1, attribute2, ...):
        self.attribute1 = attribute1
        self.attribute2 = attribute2
        ...

    # get method
    def get_attribute1(self):
        return self.attribute1

    # set method
    def set_attribute1(self, new_attribute1):
        self.attribute1 = new_attribute1

    # other methods
    def method1(self):
        pass

    def method2(self):
        pass

    ...

    # enable the "+" operator
    def __add__(self, other):
        pass

    # enable the "print()" function
    def __str__(self):
        pass

    # enable the "for...in..." statement
    def __iter__(self):
        yield
        pass

# instantiate
sample_object1 = ClassName(attribute1=value1, attribute2=value2, ...)
sample_object2 = ClassName(attribute1=value3, attribute2=value4, ...)

print(sample_object1.get_attribute1())
print(sample_object1.attribute1) # also ok, but recommend to use get method

sample_object1.set_attribute1(value5)
sample_object1.attribute1 = value5 # also ok, but recommend to use set method

add_result = sample_object1 + sample_object2 # call __add__ method
print(sample_object1) # call __str__ method
for i in sample_object1: # call __iter__ method
    pass
```