Getters and Setters

In this lesson, we will learn about getters and setters in OOP.

WE'LL COVER THE FOLLOWING ^

- Get and Set
- Example

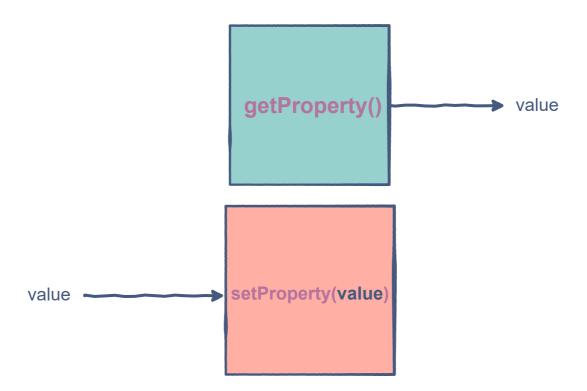
Get and Set

In order to allow controlled access to properties from outside the class, getter and setter methods are used.

A **getter** method allows reading a property's value.

A setter method allows modifying a property's value.

It is a common convention to write the name of the corresponding member fields with the get or set command.



Example

Let's write get and set methods for <u>username</u> in our <u>User</u> class:

```
class User():
    def __init__(self, username=None): # defining initializer
        self.__username = username

    def setUsername(self, x):
        self.__username = x

    def getUsername(self):
        return (self.__username)

Steve = User('steve1')
print('Before setting:', Steve.getUsername())
Steve.setUsername('steve2')
print('After setting:', Steve.getUsername())
```

In the above class, User, we have defined a private property, named <a>__username, which the main code cannot access. Also, note that we have started the name of this private property with <a>__.

For this property to interact with any external environment, we have to use the get and set functions. The get function, getUsername(), returns the value of

__username and the setUsername(x) sets the value of __username equal to the parameter x passed.

Now let's understand encapsulation using examples in our next lesson.