**Classes Part II: Objects interacting with Objects**

Now that we have a basic understanding of classes, we will go a bit deeper and make our objects interact.

You should have so far a basic Player class with:

* three attributes (name, health, speed)
* four methods (\_\_init\_\_, laugh(), yelp() and punch())

We also have three Player objects: player1, player2, player3. Our goal is to now get these players to interact in meaningful ways.

**Putting Some Punch into the Punch() Method.**

Our punch() method is all bark and no bite. Let’s get one player to punch() another player\*\*. Here’s how:

1. Add a player as a parameter to the punch() method. Here’s what you should have so far:

def punch(self):

print (self.name+ ": "+ "Taste my fists of fury!")

Now let’s add a parameter to our parameter list:

def punch(self, victim):

print (self.name+ ": "+ "Taste my fists of fury!")

1. Update the punch() method call. Change it from this:

player1.punch()

to this:

player1.punch(player2)

\*\* the author does not condone violence.

If you run this, it should work, but it shouldn’t do anything interesting.

1. Now make the punchee yelp and the puncher laugh when a punch is thrown. This:

def punch(self, victim):

print (self.name+ ": "+ "Taste my fists of fury!")

…becomes this:

def punch(self, victim):

print (self.name+ ": "+ "Taste my fists of fury!")

victim.yelp()

self.laugh()

Now we have an interaction between two objects. You can test this out by having anyone punch anyone else:

player1.punch(player2)

player2.punch(player1)

and so on.

Now let’s make this a little more fair for the victim. Let’s add some conditions:

def punch(self, victim):

print (self.name+ ": "+ "Taste my fists of fury!")

if victim.speed > 6:

print (victim.name+ ": "+ "Missed me!")

victim.laugh()

else:

victim.yelp()

self.laugh()

When we first created our players, we gave each of them a speed. Mess with the speed levels and make sure you understand how the above code works.

Exercise

1. Create a new method called hug(). The hug method should do the following things:

* Get the huggee (the person who receives the hug) to laugh.
* Get the hugger to laugh.
* Increase the health of the huggee and the hugger.