

# SelfEvaluation12\_1

November 15, 2015

## 1 Exercise 12.1:

Add a method to the city example that prints the longitude.

*Answer appears after one blank page (so you don't peek).*

Are you sure you're ready to peek?

```
In [4]: class City:
        def printLatitude(self):
            print "%s is at latitude %.2f" %(self.name,self.lat)
        def printLongitude(self):
            print "%s is at longitude %.2f" %(self.name,self.lon)

        LA = City()
        LA.name = "Los Angeles"
        LA.lat = 34.05
        LA.lon = -118.25

        Mad = City()
        Mad.name = "Madison"
        Mad.lat = 43.06
        Mad.lon = -89.40

        LA.printLatitude()
        Mad.printLatitude()
        LA.printLongitude()
        Mad.printLongitude()
```

```
Los Angeles is at latitude 34.05
Madison is at latitude 43.06
Los Angeles is at longitude -118.25
Madison is at longitude -89.40
```

But this might be kind of annoying if we had to call the full method every time we wanted to see the contents of the class. Python includes a built-in method for printing a classes contents to the screen, `__str__` and `__repr__`:

```
In [8]: class City:
        def __repr__(self):
            return "<City: %s at (%.2f, %.2f)>" % (self.name, self.lon, self.lat)
        def __str__(self):
            return "From str method of City: %s is at lon:%.2f lat:%.2f" % (self.lon, self.lat)
        def printLatitude(self):
            print "%s is at latitude %.2f" %(self.name,self.lat)
        def printLongitude(self):
            print "%s is at longitude %.2f" %(self.name,self.lon)

        Mad = City()
        Mad.name = "Madison"
        Mad.lat = 43.06
        Mad.lon = -89.40

        Mad
```

```
Out[8]: <City: Madison at (-89.40, 43.06)>
```