**Classes & Objects**

In Python, *classes* and *objects* are pivotal concepts in building console, web, and mobile applications. That means what you learn now are the exact same tools that professional developers use to build your favorite applications!

**What is a class?**

* A class is a template for an object. It defines what the object is made up of (class properties) and what actions the object can perform (member methods)

**What is an object?**

* An object is an instance of a class. Each instance of a class (object) contains the same class properties and methods. This means each instance of a class (object) has the same make up. What differs between the objects is what values are set equal to the member variables.
* To put this in perspective of what you are more familiar with, every time you run an application on your computer it is running an *instance* of that application. For example, you can have multiple Microsoft Word documents open at once. Each of these Microsoft Word documents may contain different text and fonts, but all of them have the same functionality.

The learning objective of this lab assignment is to get you thinking about classes and objects as real-world entities that you can use. We eventually will get to a point of building impressive web applications.

**Alarm Clock Lab**

As a developer, I want to use Python’s proper snake\_case for variable names.

As a developer, I want to create a AlarmClock class.

As a developer, I want the AlarmClock class to have class properties to keep track of the AlarmClock’s current time, whether the alarm is on or off, and the time the alarm is set to. (You can use arbitrary strings to represent the time, it does not need to accurately tell the current time or change over time).

As a developer, I want the AlarmClock class to have a method to set (or change) the current time and print to the console the current time.

As a developer, I want the AlarmClock class to have a method to toggle the alarm on or off.

As a developer, I want the AlarmClock class to have a method to set the current alarm time and print to the console the current alarm time.

As a developer, I want to import the AlarmClock class into main.py so I can instantiate it as a new AlarmClock object and call methods on it.