1. What are attributes and methods of a class?

Data and functions that are associated with a specific class.

1. What is the difference between a class and an instance of a class?

Class is basically a blueprint for creating instances and each unique name that we create using our named class will be an instance of that class.

3. What is a class constructor? How to define a constructor inside the class?

A class constructor is a special member function of a class that is executed whenever we create new objects of that class. We can use ’def \_\_init\_\_(self):’ to define a constructor inside the class.

4. For each (regular) method within a class, what is the first argument? By convention, what is the name of this argument?

For each (regular) method within a class, the instance is the first argument. By convention, the name of this argument is self.

5. Is there any difference between the following two lines of codes? Explain.

(a) emp\_1.fullname()

(b) Employee.fullname(emp\_1)

(a) and (b) are the same thing. When we run (a) in the background, it will get transform into (b) and emp\_1 become the self.

6. What is the difference between class variables and instance variables?

Instance variables can be unique for each instance but class variables should be the same for each instance.

7. How is the class methods different from the regular methods? For a class method, what is the first argument? By convention, how is this argument called?

The class methods can’t modify object instance state. For a class method, class is the first argument? By convention, the argument is called cls.

8. What needs to be added to turn a regular method into a class method?

Just need to add a decorator @classmethod.

9. How is the static methods different from the regular methods and the class methods? What is the decorator of a static method?

The static methods don’t take the instance or the class as the first argument. The decorator of a static method is @staticmethod.