

1.Explain the difference between a class and an object.

A class is the definition of an object, it specifies member functions and member variables that belong to an object

An object is an instance of a class

2.What is the primary difference between a member variable and a regular variable?

Member variables represent the state of an object, when accessing a member variable from outside of the class:

ObjA.my\_var = 10

For a regular variable, my\_var=10 is enough.

3.What is the primary difference between a member function and a regular function? Why do member functions require the self argument?

Member function includes a special “self” argument, and invoking it requires format like: Var.Function(args)

To differentiate between all of the potential objects that exist a reference to a specific object is provided

4.What relationship is expressed by inheritance? How is this different from composition?

Objects can inherit properties and functions from other objects,for example, bad student is a student

Objects can be composed of other objects, a car has an engine

5.What is the purpose of the constructor?

A constructor is called to instantiate a class

6.What is the special function name used when defining a constructor in Python? How many times is an object's constructor called during its lifetime?

\_\_init\_\_

It is called only once