**Q1. What is the purpose of Python's OOP?**

Object-oriented programming (OOP) is a method of structuring a program by bundling related properties and behaviors into individual objects.  It aims to implement real-world entities like inheritance, polymorphisms, encapsulation, etc.

**Q2. Where does an inheritance search look for an attribute?**

inheritance happens when an object is qualified, and involves searching an attribute definition tree (one or more namespaces). Every time you use an expression of the form object.attr where object is an instance or class object, Python searches the namespace tree at and above object, for the first attr it can find. Because lower definitions in the tree override higher ones, inheritance forms the basis of specialization

**Q3. How do you distinguish between a class object and an instance object?**

Class : A class is a blue print. Ex : Car

Object : It is the copy of the class. Ex : Car.Color , Car.Fuel\_type etc

 Instance : Its a variable which is used to hold memory address of the object.

**Q4. What makes the first argument in a class’s method function special?**

Self or any name - the first argument act as a Pointer to be passed in Constructor and Instance Method

**Q5. What is the purpose of the \_\_init\_\_ method?**

--init—is the constructor to initialize the object's attributes with help of the pointer self.

**Q6. What is the process for creating a class instance?**

A class is a template for storing data and functions in an object. A class can be instantiated to create a unique instance. A class can accept parameters in the constructor.

##Dummy class

Class a :

Pass

To pass parameters to the class instance, the class must have an [\_\_init\_\_()](https://www.adamsmith.haus/python/docs/builtins.object.__init__) method. Pass the parameters in the constructor of the class. First arg is always the pointer.

class a:

def \_\_init\_\_(self, ss):

self.ss = ss

ab = C("sjdhj") ## To create a instance

print(ab.ss)

**Q7. What is the process for creating a class?**

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**Q8. How would you define the superclasses of a class?**

A superclass is **the class from which many subclasses can be created**. The subclasses inherit the characteristics of a superclass. The superclass is also known as the parent class or base class