Q1. What is the difference between \_\_getattr\_\_ and \_\_getattribute\_\_?

\_\_getattr\_\_ is executed as the last resource when attribute is not found in an object. You can choose to return a default value or to raise AttributeError.

\_\_getattribute\_\_ is used to retrieve an attribute from an instance. It captures every attempt to access an instance attribute by using dot notation or getattr() built-in function.

Q2. What is the difference between properties and descriptors?

Descriptors are the one which lets you access the object attributes.

Properties are the high level application of the descriptors which uses the descriptor to implement or access the object attributes.

Q3. What are the key differences in functionality between \_\_getattr\_\_ and \_\_getattribute\_\_, as well as properties and descriptors?

In a class if we have both the methods then the \_\_getattribute\_\_ method will get called first.

In case if the \_\_getattribute\_\_ method raises an exception and if the \_\_getattr\_\_ method is present then the exception will be ignored and \_\_getattr\_\_ will get called.

\_\_getattr\_\_ method is mainly used to called at last when the attribute isn’t find in the object.

Whereas \_\_getattibute\_\_ method will be calle each time the object attribute is created regardless whether its defined in the class or not.