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

\_\_getattr\_\_ is a fallback method called when an attribute is not found through normal lookup, while \_\_getattribute\_\_ is called for every attribute access, whether the attribute exists or not. \_\_getattr\_\_ handles undefined attribute access, while \_\_getattribute\_\_ handles all attribute access and requires caution to avoid infinite recursion.

**Q2. What is the difference between properties and descriptors?**

properties are a high-level and convenient way to define attribute access behavior within a class, while descriptors are a lower-level mechanism that allows for more fine-grained control and reusability of attribute access behavior. Properties are typically used within the class they are defined in, while descriptors can be shared among multiple classes.

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

**\_**\_getattribute\_\_ is invoked everytime to access the attribute where as \_\_getattr\_\_ is only invoked when \_\_ getattribute\_\_ fails

Properties are decorators which makes methods to behave like a property where as descriptors are the classes which can be used to set \_\_get\_\_, \_\_set\_\_ and \_\_delete\_\_ methods.