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

ANS:

The main difference between \_\_getattr\_\_ and \_\_getattribute\_\_ is that if the attribute was not found by the usual way then \_\_getattr\_\_ is used. Whereas the \_\_getattribute\_\_ is used before looking at the actual attributes on the object.

Q2. What is the difference between properties and descriptors?

ANS:

The Cliff's Notes version: descriptors are a low-level mechanism that lets you hook into an object's attributes being accessed. Properties are a high-level application of this; that is, properties are implemented using descriptors.

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

ANS:

A key difference between \_\_getattr\_\_ and \_\_getattribute\_\_ is that \_\_getattr\_\_ is only invoked if the attribute wasn't found the usual ways. It's good for implementing a fallback for missing attributes, and is probably the one of two you want.