

### Q1. What is the difference between getattr and getattribute?

In [ ]:

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Ans: __getattribute__ is used to find an attribute of a class. It raises an Attribute Error if an attribute is not found in the class. __getattr__ is implemented latter if Attribute Error is generated by getattribute. __getattribute__ both has to be defined in same class. If no attribute is found, __getattr__ is called for attributes that don't actually exist on a class.
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### Q2. What is the difference between properties and descriptors?

In [ ]:

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Ans: The differences between Properties and Descriptors is:
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Properties: With Properties we can bind getter, setter and delete functions together with a property function or @ property decorator. When we do this, each reference to an attribute invokes the appropriate function of the object.
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Descriptor: With Descriptor we can bind getter, setter and delete functions into a separate class to the attribute name in our main class. When we do this, each reference to an attribute invokes an appropriate function of descriptor object.
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### Q3. What are the key differences in functionality between getattr and getattribute, as well as properties and descriptors?

In [ ]:

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Ans: The Key Differences between __getattr__, __getattribute__, Properties and Descriptors:
__getattr__: Python will call this method whenever you request an attribute that hasn't been defined.
__getattribute__: This method will be invoked before looking at the actual attributes on the object.
Means, if we have __getattribute__ method in our class, python invokes this method first to check if the attribute exists or not.
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Properties: With Properties we can bind getter, setter and delete functions together with a property function or @ property decorator. When we do this, each reference to an attribute invokes the appropriate function of the object.
```

```
Descriptor: With Descriptor we can bind getter, setter and delete functions into a separate class to the attribute name in our main class. When we do this, each reference to an attribute involves an appropriate function of descriptor object.
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