

Defining Class with blank content ::

In [27]:

```
class Sample():  
    pass          # to print blank content
```

In [28]:

```
my_sample = Sample()
```

Defining Member variables ::

In [29]:

```
class Dog():  
    # __init__ is a constructor and its called automatically  
    # when create instance or object of a class  
  
    def __init__(self,mybreed): # self keyword represents the object a class  
  
    # self.breed is creating an attribute  
    # with variable name breed  
    self.breed = mybreed
```

In [30]:

```
my_dog = Dog(mybreed = 'Huskie') # Creating objects
```

In [31]:

```
your_dog = Dog(mybreed = 'german')
```

In [32]:

```
your_dog.breed
```

Out[32]:

```
'german'
```

In [33]:

```
my_dog.breed
```

Out[33]:

```
'Huskie'
```

In [34]:

```
class Cat():  
    # __init__ is a constructor and its called automatically  
    # when create instance or object of a class  
    # self keyword represents the object a class  
  
    def __init__(self,breed,age): # constructor with two parameters  
  
    # self.breed is creating an attribute  
    # with variable name breed  
        self.breed = breed  
        self.age = age
```

In [35]:

```
my_cat = Cat(breed='Tom', age=22)
```

In [36]:

```
my_cat.breed
```

Out[36]:

```
'Tom'
```

In [37]:

```
my_cat.age
```

Out[37]:

```
22
```

Checking Class Variable ::

In [38]:

```
class Dog():  
  
    #Class Object Attribute  
    #Same for any instance or object of a class  
    #So self is not required  
    species = 'mammal'  
  
    def __init__(self, breed, name, spots):  
  
        self.breed = breed  
        self.name = name  
        self.spots = spots
```

In [39]:

```
my_dog = Dog(breed='lab',name='Sammy',spots= False)
```

In [40]:

```
Dog.species # As Species is a class variable/attribute. So we can call  
# it with class name
```

Out[40]:

```
'mammal'
```

In [41]:

```
my_dog.species # We can call it with object name
```

Out[41]:

```
'mammal'
```

In [42]:

```
Dog.breed # breed is not class variable/attribute
```

```
-----  
-----  
AttributeError                                Traceback (most recent call  
1 last)  
<ipython-input-42-bb85db92fb89> in <module>()  
----> 1 Dog.breed # breed is not class variable/attribute  
  
AttributeError: type object 'Dog' has no attribute 'breed'
```

In [43]:

```
my_dog.breed
```

Out[43]:

```
'lab'
```