**1) What is Abstraction in Python?**

Abstraction in Python is the process of hiding the real implementation of an application from the user and emphasizing only on how to use the application or by only showing a method signature.

**2) How can we achieve Abstraction in Python?**

In Python, abstraction can be achieved using abstract classes and methods.

**3) Whether an abstract class can be instantiated?**

No, the abstract class cannot be instantiated, i.e., we cannot create objects for the abstract class.

**4) Mention the name of the module to be imported for an abstract class**

‘abc’ is the module to be imported when we define an abstract class in Python programs. ‘abc’ stands for ‘abstract base class’.

**5) Why we need abstraction ?**

Through the process of abstraction in Python, a programmer can hide all the irrelevant data/process of an application in order to reduce complexity and increase efficiency.

**Below mentioned points have to be noted while defining an abstract class in Python programs.**

1. An abstract class can have both a normal method and an abstract method
2. An abstract class cannot be instantiated, ie., we cannot create objects for the abstract class

**Abstract Class**

* A class derived from ABC class which belongs to abc module is known as abstract class in python.
* ABC class is known as Meta class which means a class defines the behavior
* of other classes . So we can say meta class ABC defines that the class which is derived from it becomes an abstract class.
* Abstract class can have abstract method and concrete methods.
* Abstract class needs to be extended and method implemented.
* PVM can not create objects of an abstract class.
* Syntax

from abc import ABC

class Father(ABC)

**Abstract Method**

* A abstract method is a method whose action is redefined in the child classes as per the requirement of the object.
* We can declare method as abstract method by using @abstractmethod decorator.

Class father(ABC)

@abstractmethod

def disp(self):

pass

def show(self):

print(‘concrete method’)

Rules

1. PVM can not create objects of an abstract class.
2. It is not necessary to declare all methods abstract in a abstract class.
3. Abstract class can have abstract method and concrete method.
4. If there is any abstract method in a class that class must be abstract.
5. The abstract methods of an abstract class must be defined in its child class/subclass.