**4.25) Explain Inheritance in Python with an example? What is init? Or What Is A Constructor In Python?**

**Inheritance:-**

-> Inheritance relationship defines the classes that inherit from other classes as derived,subclass,or sub-type classes.Base class remains to be the source from which a subclass inherits.

-> Python supports multiple inheritance.

Example For:-

class a:

aid=0

anm=''

def a\_getdata(self):

self.aid=input('Enter A id:')

self.anm=input('Enter A Name:')

class b(a):

bid=0

bnm=''

def b\_getdata(self):

self.bid=input('Enter B id:')

self.bnm=input('Enter B Name:')

class c(b):

cid=0

cnm=''

def c\_getdata(self):

self.cid=input('Enter C id:')

self.cnm=input('Enter C Name:')

class d(c):

def printdata(self):

print('--- A-Student Data---')

print('A Student Id number=',self.aid)

print('A student Name=',self.anm)

print('--- B-Student Data---')

print('B Student Id number=',self.bid)

print('B student Name=',self.bnm)

print('--- C-Student Data---')

print('C Student Id number=',self.cid)

print('C student Name=',self.cnm)

sp=d()

sp.a\_getdata()

sp.b\_getdata()

sp.c\_getdata()

sp.printdata()

**init:-**

The \_\_init\_\_ function is called every time an object is created from a class. the \_\_init\_\_ method lets the class initialize the object's attributes and services, no other purpose. It is only used within classes.

**Constructor:-**

Constructor are generally used for instantiating an object.The task of counstructor is to initialize to the data members of the class when an object of the class is created. In Python the \_\_init\_\_() method is called the constructor and is always called when an objet is created.