**Task 1:** Create a class Point having X and Y axis then perform an operator overloading

(Overload all relation operator).

# Code:

class Point:

def \_\_init\_\_(self,x,y):

self.x=x

self.y=y

def \_\_add\_\_(self,other):

x=self.x+other.y

y=self.x+other.y

return(x,y)

def \_\_sub\_\_(self,other):

x=self.x-other.y

y=self.x-other.y

return(x,y)

def \_\_gt\_\_(self,other):

x=self.x>other.y

y=self.x>other.y

if x and y:

return(True)

else:

return(False)

def \_\_lt\_\_(self,other):

x=self.x<other.y

y=self.x<other.y

if x and y:

return(True)

else:

return(False)

def \_\_ge\_\_(self,other):

x=self.x>=other.y

y=self.x>=other.y

if x >= y:

return(True)

else:

return(False)

def \_\_le\_\_(self,other):

x=self.x<=other.y

y=self.x<=other.y

if x <= y:

return(True)

else:

return(False)

def \_\_eq\_\_(self,other):

x=self.x==other.y

y=self.x==other.y

if x == y:

return("Both are equal")

else:

return("Both are not equal")

c1=Point(2,3)

c2=Point(4,5)

print("The sum is ",c1+c2)

print("the Subtraction is ",c1-c2)

print("The C1 is greater than C2",c1>c2)

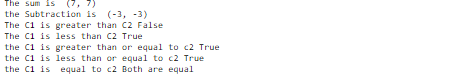
print("The C1 is less than C2",c1<c2)

print("the C1 is greater than or equal to c2",c1>=c2)

print("the C1 is less than or equal to c2",c1<=c2)

print("the C1 is equal to c2",c1==c2)

# Result :



**Task 2:**

Find out one real world example of interface and implement all abstract method by using python n code.

# Code :

from abc import ABC, abstractmethod

class shape(ABC):

def Area(self):

pass

class Square(shape):

def \_\_init\_\_(self,side):

self.side=side

def Area(self):

Area=int(self.side)\*int(self.side)

return("The Area Of Square is {}".format(Area))

class Triangle(shape):

def \_\_init\_\_(self,base,height):

self.base=base

self.height=height

def Area(self):

Area=1/2\*(int(self.base)\*int(self.height))

return ("The Area Of triangle is {}".format(Area))

Sq=Square("4")

Tr=Triangle("5","2" )

for i in(Sq,Tr):

print(i.Area())

# Result :

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