

```
import math

ip1 = [ (1, 3, 0.7), (2, 3, 0.4), (3, 3, 0.9) ]
ip2 = [ (1.5, 1.5, 1.3), (4, 4, 0.7) ]
ip3 = [ (.5,.5,.5), (1.5,1.5,1.1), (0.7,0.7,4), (4, 4, 0.7) ]

class check_Overlap:

    def CheckOverlap(x , list):

        clusters=[]

        for circle1 in range(len(list)):

            for circle2 in range(len(list)):

                if circle1 >= circle2:
                    continue

                r = (list[circle1][2] + list[circle2][2]) #Given radius sum

                d = math.sqrt( ( (list[circle2][0] - list[circle1][0]) ** 2) + ( (list[circle2][1] - list[circle1][1]) ** 2) )

                if d < r: #if distance is lesser then radius
                    clusters.append( (list.index(list[circle1]) ,list.index(list[circle2]) ) )

            return clusters

c11 = check_Overlap().CheckOverlap(ip1)
if len(c11) == 2:
    op1 = True
else:
    op1 = False
print(op1)

c12 = check_Overlap().CheckOverlap(ip2)
if len(c12) == 2:
    op2 = True
else:
    op2 = False
print(op2)

c13 = check_Overlap().CheckOverlap(ip3)
if len(c13) == 2:
    op3 = True
else:
    op3 = False
print(op3)
```

#https://colab.research.google.com/drive/1yMbO2QrkxMAbzQmQPzMVhRp7AkwU_O6U?usp=sharing

☞ True
False
False

+ Code

+ Text

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