Suppose there is a rectangle that is represented as a list [x1, y1, x2, y2], where (x1, y1) is the coordinates of its bottom-left corner, and (x2, y2) is the coordinates of its top-right corner. Now two rectangles overlap if the area of their intersection is positive. So, we can understand that two rectangles that only touch at the corner or edges do not overlap.

If we have two (axis-aligned) rectangles, we have to check whether they overlap or not.

So, if the input is like R1 = [0,0,2,2], R2 = [1,1,3,3], then the output will be True.

To solve this, we will follow these steps −

- if R1[0]>=R2[2] or R1[2]<=R2[0] or R1[3] <=R2[1] or R1[1]>=R2[3], then
    - return False
- otherwise,
    - return True

Let us see the following implementation to get better understanding −

Example

Live Demo

```python
class Solution:
   def isRectangleOverlap(self, R1, R2)
      if (R1[0]>=R2[2]) or (R1[2]<=R2[0
         (R1[1]>=R2[3]):
            return False
      else:
   return True
ob = Solution()
print(ob.isRectangleOverlap([0,0,2,2],[
```

Input

```
[0,0,2,2],[1,1,3,3]
```

Output

```
True
```