```
text box coordinates = [
    {"x1}^{"}: sublist[0], "y1": sublist[1], "x2": sublist[2], "y2": sublist[3]} for sublist in text_box_coordinates
parent box coordinates = [
   {"x1": sublist[0], "y1": sublist[1], "x2": sublist[2], "y2": sublist[3]} for sublist in parent_box_coordinates
1
# def check all intersection():
# return True or False
def check_intersection(coords):
   return False
# def get alignment(child, parent, distance):
           x1, y1____
                      _6___px2, py2
#
                ____6__
___x2, y2
                         ____px1, py1
#
     # x1, y1
     if child.y1 == (parent.y2 + distance) or parent.y1 - 6 == child.y2:
#
     return 'horizontal'
#
     return 'vetical'
def get_position(child, parent, distance):
          px2, py2
                   x2, y2
             x1, y1
   if parent.x2 + distance == child.x1:
      return 'right'
   elif parent.y1 - distance == child.y2:
      return 'bottom'
   elif child.y1 == parent.y2 + distance:
      return 'top'
   else:
       return 'left'
def move_horizontal_left(child, moving_rate):
   child.x1 -= moving_rate
   child.x2 -= moving_rate
   return child
def move horizontal right(child, moving rate):
   child.x1 += moving rate
   child.x2 += moving_rate
   return child
def move_vertical_up(child, moving_rate):
   child.yl += moving rate
   child.y2 += moving_rate
   return child
def move_vertical_down(child, moving_rate):
   child.x1 -= moving rate
   child.x2 -= moving rate
   return child
def change_course(child, distance, position):
   new child = {'x1': 0, 'y1': 0, 'x2': 0, 'y2': 0}
   x1, y1, x2, y2 = child.values()
    if position == 'top':
                  ----- x2, y2
                                     | | x2, y2
       # x1, y1 -----
       # 2, 3
       # -- change course
                                      x1, v1
       new_child.y1 = y1 - ((y2-y1) - (x2 -x1))
```

```
new child.y2 = y2
    # Warning!!! Need to change the below coordinates
    elif position == 'bottom':
             ----- x2, y2
                                       | | x2, y2
          x1, y1 -----
        # 2, 3
        # -- change course
       # if already horizontal
                                         x1, y1
       new\_child.x1 = x1 + (x2 - x1) + distance

new\_child.x2 = x2 + distance + (y2 - y1)
       new child.y1 = y1 - ((y2-y1) - (x2 -x1))
       new_{child.y2} = y2
    elif position == 'left':
                              5, 7
                 ----- x2, y2
                                       | | x2, y2
         x1, y1 -----
        # 2, 3
        # -- change course
       # if already horizontal
                                         x1, y1
       new\_child.x1 = x1 + (x2 - x1) + distance
       new child.x2 = x2 + distance + (y2 - y1)
       new child.y1 = y1 - ((y2-y1) - (x2 -x1))
       new_child.y2 = y2
       new_child.x1 = x1 + (x2 - x1) + distance
       new child.x2 = x2 + distance + (y2 - y1)
       new_child.y1 = y1 - ((y2-y1) - (x2 -x1))
       new_child.y2 = y2
    return new child
def show_board(child, parent):
 pass
# algo
# while not check_all_intersection:
# for i in range(len(text_box_coordinates)):
i = 100
moving rate = 0.123
distance = 6
while not found flag:
   child = text box coordinates[i]
   parent = parent_box_coordinates[i]
   # alignment = get_alignment(child, parent)
   position = get_position(child, parent, distance)
    if position == 'top':
        # increase x1 and x2 values by 0.1% of (x2-x1)
        child = move_horizontal_right(child, moving_rate)
        if child.x2 >= parent.x2:
           child = change course(child, distance, position)
    if position == 'bottom':
       child = move_horizontal_left(child, moving_rate)
        if child.x1 <= parent.x1:</pre>
           child = change course(child, distance, position)
    if position == 'left':
        child = move_vertical_up(child, moving_rate)
        if child.y2 >= parent.y2:
            child = change course(child, distance, position)
    if position == 'right':
        child = move_vertical_down(child, moving_rate)
        if child.y1 <= parent.y1:</pre>
           child = change_course(child, distance, position)
    found flag = check intersection(child)
    show_board(child, parent)
    i -= 1
   if i < 0:
      break
    # found all flag = check all intersection()
```