Lab Python n°2 _ 2

Advanced Level :

In this part, the methods implemented must use the methods implemented earlier into the class 'Point'.

Write your own tests to verify that every one of these methods return expected results.

1. Class Rectangle

Write in python a class Rectangle, that takes two points as arguments (the top left corner point and the bottom right one). This class must contain the method 'opposite' which transforms the rectangle's location to its opposite.

2. Distance and Zoom:

Write to the previous created class the two following methods:

- Distance: Takes self and a Rectangle object as argument and returns the distance between theirs centres.

- Zoom: Takes self and a scalar (int or float) as argument, and enlarge it by the given factor.

3. Rotation and Aligned

Write to the Rectangle class another two methods:

- Rotate: Takes self, a Point object as argument and an angle, and returns a Rectangle object obtained after a rotation around the given point with the given angle.

- Aligned: Takes self and two other Rectangle objects as argument and returns True if their respective centers are aligned, False otherwise.