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May 27, 2021

Code Verification Report

1. Test Plans and Results

I plan to use a unit-testing strategy and make sure the modules and functions work. Then test the entire system with the following expected functions:

1. Input: Two sets of inputs contain a rows each of integers; each row has 8 integers representing the four coordinates of the quadrilateral. The points will be connected from the order user enters the coordinates.
2. Output: Output three results based on the input of coordinates: Collided, Apart, and Coincide
3. Name of the software and revision being tested:

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Input | Output | Comment |
| Detection.java | Enter X and Y Coordinates of two Convex Quadrilaterals in Connected Order Separated by Spaces | Collided, Apart, or Coincide | Exclude ‘donut’ shapes |
| LineSeg.java | Receive X and Y coordinates of two points | A vector | Constructs a vector given 2 points |
| Shape.java | Two quadrilaterials | Comparison results | Separate a shape into lines |
| Point.java | Receive X and Y coordinates of one point | A ‘point’ object | -- |

1. Tester’s name, date of test:

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1. Any special tools, conditions, or configurations needed to perform the test:

No

1. Test case descriptions, including expected outputs

* Tested Collidable points of (0, 0), (5, 0), (5, 5), (5, 0) as first shape and (1, 1), (6, 2), (7, 7), (6, 0) as second shape. Expected “Collided” as output.
* Tested Apart points of (0, 0), (5, 0), (5, 5), (0, 5) as first shape and (10, 0), (20, 0), (20, 10), (10, 10) as second shape. Expected “Apart” as output.
* Tested Coincidable points of (0, 0), (5, 0), (5, 5), (0, 5) and the same coordinates for a coincidental case. Expected “Coincide” as output.

• Actual results for each test case, including a “pass/fail” notation

Test 1 passed

Test 2 passed

Test 3 passed