

EECE.2160: ECE Application Programming

Programming Assignment #7: Nested Structures

Test Cases

The results of a full program run is shown below, with user inputs underlined. Remember, when running the program in zyBooks, user inputs are not shown.

Enter command <A | P | D | O | Q>: A
Enter coordinates as x y, starting with lower left hand corner:

0 0
0 3
4 3
4 0

Enter command <A | P | D | O | Q>: A
Enter coordinates as x y, starting with lower left hand corner:

1 1
1 5
5 5
5 1

Enter command <A | P | D | O | Q>: P

(0.00, 3.00) (4.00, 3.00)
(0.00, 0.00) (4.00, 0.00)

(1.00, 5.00) (5.00, 5.00)
(1.00, 1.00) (5.00, 1.00)

Enter command <A | P | D | O | Q>: D

Enter index into array: 1
Area of rectangle 1: 16.00
Perimeter of rectangle 1: 16.00

Enter command <A | P | D | O | Q>: D

Enter index into array: 0
Area of rectangle 0: 12.00
Perimeter of rectangle 0: 14.00

Enter command <A | P | D | O | Q>: O

Enter indices to test: 0 1
Rectangles 0 and 1 overlap

Enter command <A | P | D | O | Q>: A

Enter coordinates as x y, starting with lower left hand corner:

-1 -1
-1 0.5
0.5 0.5
0.5 -1

Enter command <A | P | D | O | Q>: P

(0.00, 3.00) (4.00, 3.00)
(0.00, 0.00) (4.00, 0.00)

(1.00, 5.00) (5.00, 5.00)
(1.00, 1.00) (5.00, 1.00)

(-1.00, 0.50) (0.50, 0.50)
(-1.00, -1.00) (0.50, -1.00)

Enter command <A | P | D | O | Q>: D

Enter index into array: 2

Area of rectangle 2: 2.25

Perimeter of rectangle 2: 6.00

Enter command <A | P | D | O | Q>: O

Enter indices to test: 0 2

Rectangles 0 and 2 overlap

Enter command <A | P | D | O | Q>: O

Enter indices to test: 1 2

Rectangles 1 and 2 do not overlap

Enter command <A | P | D | O | Q>: Q