Day 3: More about Objects

Exercise 1: Download and open touchingRectangles project. You need to construct and draw two rectangles. Both rectangles have width 20 and height 30. The first rectangle has top left corner at (60, 90). The bottom right corner of the first rectangle should be the top left corner of the second rectangle.

Exercise 2:

a. Download and open copyingRectangles project.

b. Open copyingRectangles class and try to answer the quiz question.

c. Change the way that box2 is instantiated so that it is drawn adjacent to box1.

d. Open the Text class and read its documentation. Create a text object to label each box. Test your code. (Hint: Text text1 = new Text(20,30,"TOP SECRET"); text1.draw();

Exercise 3:

a. Change copyingRectangles so that you use the new Color(\_\_,\_\_,\_\_) method to set the color for each rectangle.

b. Download and open DrawACrate project.

c. Draw a crate by combining a rectangle with five lines.

* The front face is a rectangle with top left corner (20, 30), width 100, and height 40.
* A diagonal line goes from the face's top left corner to (50, 10).
* Another diagonal line goes from the face's bottom right corner to (150, 50).
* A third diagonal starts at the face's top right corner and is parallel to the others.
* The fourth and fifth line join the end points of the diagonals.

d. Before programming, get out a pen and draw the crate on a sheet of paper! Label each of the points with their coordinates.

e. Also, don't forget to call draw() on your rectangle and line objects.

Exercise 4: (Optional!!) BlockTower

a. Download and open BlockTower.

b. Complete the code in the class BlockTower to draw a tower of blocks. Each block has a width of 40 and a height of 30. There will be three rows. The upper left-hand corner of the bottom row is at (20, 70) Create a custom color for the topmost color where red = 125, green=125, blue = 255. For all the other colors, use predefined colors: RED, PINK, BLUE, MAGENTA, CYAN.